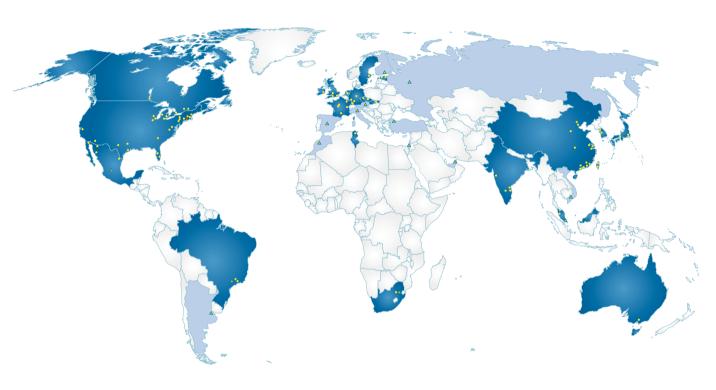


# Amphenol LTW Innovation in Waterproof Solution



**CATALOGUE** 

## **Amphenol Group | Global Presence**



## Sales, R&D, and Manufacturing on 6 continents

79% of workforce in

- = MANUFACTURING OPERATIONS
- ▲ = SALES OFFICES
- ★ = HEADQUARTERS

### **AMERICAS**

**UNITED STATES** CANADA **MEXICO** BRAZIL ARGENTINA

### **EUROPE**

**FRANCE** GERMANY UNITED KINGDOM **IRELAND** THE NETHERLADNS CZECH REPUBLIC **ESTONIA** SLOVAKIA ITALY

SPAIN SWEDEN NORWAY RUSSIA TURKEY SAUDI ARABIA **FINLAND AUSTRIA** 

#### **MIDDLE EAST & AFRICA**

**TUNISIA** SOUTH AFRICA UNITED ARAB EMIRATES ISRAEL

#### **ASIA & PACIFIC**

TAIWAN CHINA HONG KONG JAPAN KOREA **PHILIPPINES** MALAYSIA **SINGAPORE** INDIA **AUSTRALIA** VIETNAM

## **Amphenol LTW | Global Service**



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## Our Mission

Amphenol LTW is fully committed to contributing to a safer and greener environment toward an open and friendlier world. ALTW actively and proactively become the interconnects of choice for technologically advanced products with purposes such as:

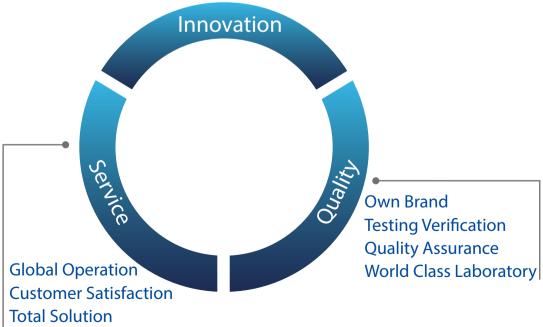
- Generating power and energies from renewable sources
- Protecting, conserving, saving and better managing resources
- Warning and preventing natural disasters such earthquakes, tsunamis, landslides, flooding...
- Lighting up buildings, residences, streets and factories at lowest possible costs in the most efficiently and environmental friendly ways
- Detecting, monitoring and managing goods and people for seamless flow and exchanges around the world
- Enabling higher speed and broadband communications and telecommunications
- Producing higher yield of crops and maximizing the use of scarce "agricultural" lands

- Accelerating the proliferation of organic crops
- Delivering safe and quality food
- Preventing shortage of food and enabling the production of sufficient food
- Enabling higher productivities in farms while enhancing qualities of produces
- Allowing higher productivities and efficiencies in factories and industries
- Facilitating automation and reducing labor costs and risks
- Making biotechnologies a reality and common place in tomorrow's world
- Ensuring life-saving products available whenever and wherever they are much needed
- Facilitating the "rugged revolution" in mobile world

Amphenol LTW is the innovator and solution provider for products to be used harsh and rugged environments.

Create Company's Profile and New Industry Orientation by Innovation & Differentiation

Research Innovation R&D Management Technology Foundation



## **Our History**

LTW Technology Co., Ltd, established in March 1993, is the innovator and solution provider for all products that are to be used in harsh and rugged environments indoor or outdoor.

In April 2010, Amphenol Corp (NYSE: APH) acquired LTW Technology ("ALTW") which become Amphenol LTW Technology Co., Ltd.

Amphenol LTW Technology is the leader in rugged and harsh environment interconnects with largest array of I/O and products ranging from IP65 to IP69K. ALTW continuously provides innovative products and solutions for an ever demanding environment with patents covering China, Taiwan, Japan, South Korea, Europe and North America, etc...

Together with our customers, ALTW participate and contribute to a better world, greener and safer environment.

### Amphenol LTW



#### 2008

Taiwan Small & Medium Enterprise Innovation Award

Innovation Research Award

#### 2010

LTW was acquired by Amphenol Group in April of 2010

## LTW<sup>®</sup>



1993 Established

2000

Opened Kun Shan Zhrengri (KSZ)Electronics in Kunshan, China



2002

LTW moved to Shinjuang City,Taipei.

2004

KSZ expanded plant to 17,000 sqm.



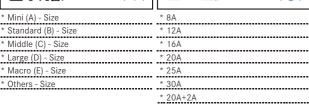
2006

Factory in Taipei with CNC Automatic Lathe & Automation Center

Established 2nd

## **Shortcut by Product Series**

#### **Circular Connector Power Connector** M Series Sensor Connector **USB Connector** · Screw Threaded Type, Lock · Screw Threaded or Lock Bayonet Available in M8 (3P~5P & 8P); Screw Threaded or Lock Bayonet Bayonet Type or Push Lock Type Type (2 pionts & 3 points) M12 (3P $\sim$ 12 in A, B, D & X · Receptacle, Receptacle with Receptacle, Overmolded With Codes); Mini 7/8" 5P • USB A, USB B and Mini USB cable, Overmolded With Cable & Cable & Field Installable • Compact and rugged design • IP67/IP68 mated and unmated Field Installable available available in IP67/IP68 waterproof • Options from 2 to 7 contacts, 8A • Options from 2 to 31 contacts, waterproof · Receptacle, Overmolded With 2A to 20A · Available in Stamped, Screw-In, Cable available UV Resistant · Various sizes, over 1000 items, · Over 110 plastic items PCB and Solder Contacts plastic and metal UV Resistant Receptacle (M12 90° PCB), Field · Operating temperature Installables & Molded With Cable <sup>©</sup> Field installable: -20°C ~ 80°C UV Resistant Operating temperature Overmolded with Cable: -20°C ~ 80°C • IP65/66/67/68 waterproof Overmolded with Cable: -20°C ~ 80°C mated or unmated © Receptacle: -40°C ~ 105°C · Meets industry standards (IEC, Nylon+GF: -40°C ~ 105°C © Field installable: -40°C ~ 105°C · Operating temperature NMEA2000, DeviceNet, EtherNet M-PPE: -40°C ~ 105°C · IP67/68 waterproof mated or © Field installable: -20°C ~ 105°C I/P, Profibus & ProfiNet) ABS: -20°C ~ 80°C unmated © Receptacle: -40°C ~ 105°C Operating temperature Receptacle with cable © Receptacle with cable: -20°C ~ 80°C • Customizations are possible Nylon+GF: -20°C ~ 105°C © Field installable: -40°C ~ 105°C Overmolded with Cable: -20°C ~ 80°C ABS: -20°C ~ 80°C · Hybrid availiable © Receptacle: -40°C ~ 105°C · Customizations are possible · Easy & simple connection · Safety locking available (25A & Overmolded with Cable · Hybrid available PVC Cable: -20°C~80°C structure PU Cable: -20°C~85°C • PnP - plug and play Touch Safe (IP2X) available (25A • Hexagonal-Shaped Diecasted • Master/Slave framework & 30A) Screw Nuts for Cable Assy for easier Tool access PVC, PUR Jackets available for cables (Sun, Oil Resistant & Flame rated) UL/CSA Approval · Hybrid Available Upon Request P 1-1 P 2-1 P 3-1 P 4-1



\* M8

\* M10.5

\* M12

\* Heavy Duty Shielded

\* M23

\* USB 3.0 A Type

\* USB 2.0 A Type

\* USB 2.0 B Type

\* Mini USB 2.0 B Type

IEEE 1394 Connector	D-SUB Connector	DVI Connector	RJ Connector
Receptacle, Overmolded With Cable & Field Installable	• Standard D-Sub (9/15/25/37/50 contacts), High Density	DVI-D Single Link (DDS), DVI-I Single Link (DIS), DVI-D Dual	Screw Threaded or lock Bayonet Type
available  • Screw Threaded Type  • 0.5A  • UV Resistant  • Operating temperature  • Field installable: -20°C ~ 80°C  • Receptacle: -20°C ~ 80°C  • Overmolded with Cable: -20°C~80°C  • IP67/68 Unmated	D-Sub (15/26/44/62/78 contacts) and Mixed Options Available  Receptacle, Overmolded With Cable & Field Installable available  Various Connection types, such as hand solder, wire wrap, straight and angled PCB, with and without boardlock, and flat cables  High Reliability for Harsh Environment  IP67/IP68 waterproof  Special Latches instead of thumb screws available  Operating temperature  Field installable: -20°C ~ 105°C  Overmolded with Cable: -20°C ~ 80°C  Receptacle: -20°C~105°C	Link (DDD) and DVI-I Dual Link (DID) available  Receptacle and Overmolded With Cable available  Screw Threaded Type  0.5A  19/23/25/29 contacts avaiable  UV Resistant  Operating temperature  Overmolded with Cable: -20°C ~ 80°C  Receptacle: -20°C~105°C  IP67/68 waterproof	Receptacle, Overmolded With Cable & Field Installable available Shielded & Unshielded versions Fast connectivity Networking in Harsh environments IDC, RJ Jack in 180 & 90 deg., Terminal Block and Cable terminated
P 5-1	P 6-1	P7-1	P 8-1
* IEEE 1394B	* Standard * High Density	* DVI-Single Link  * DVI-Dual Link  * DVI-D Single Link  * DVI-D Dual Link	* Cat. 5e

<sup>\*</sup> Design and specification are subject to change without notice.

SSL Solution Connector	LED Indicator	HDMI Connector	Sata Connector
For B-to-B, W-to-B, W-to-W Available in 1P, 2P, 4P and 6P Standard or IP67 SMT Board Connector for PCB: FR4, MC, or Ceramic With and without Mounting boardlock With or Without Lock or Latch Board Connectors in Right Angle, Straight, or Inverted Horizontal or Vertical Connection or Disconnection Overmolded Cable Straight or Right Angle Operating temperature Receptacle: -40°C ~ 100°C Natural white color for all connector housings and over-molding UL recognized (UL approved upon request) Lead Free and RoHS Compliant	LED lights for your device (Receptacle only)     Light color: red, blue, green, white, yellow and red/green     Plastic LED (Ø3mm) or metal LED (Ø3mm and Ø5mm)     Operating temperature     Metal: -20°C ~ 105°C     Plastic: -20°C ~ 85°C     IP67 Unmated	Receptacle (Jack) and Overmolded With Cable (Plug) available Latch type for 90° PCB  O.2A Maximum cable length 5M UV Resistant Operating temperature Receptacle: -20°C ~ 80°C Overmolded with Cable: -20°C ~ 80°C IP67 Unmated	Snap in with latch: insertion and extraction are easy and quick Overmolded With Cable and PCB type (Socket) for SMD or DIP Harpoon board lock or flat board lock 1.6, 2.6, 3.2mm mounting board-lock available SATA 2.6 Available contacts: 7P Current Capacity: 1.5A Over-molded Wires Size: #26 15V DC Black color for all connector housings and over-molding UL recognized materials Lead Free and RoHS Compliant PCB thickness 1.6 mm IEC 60529 / IP67 mated Sata III available (upon request) Operating temperature Receptacle: -20°C ~ 80°C Overmolded with Cable: -20°C ~ 80°C
P 9-1 * SSL-1	P 10-1	P 11-1  * Plug  * Jack	P 12-1  * PCB Type  * Overmolded Plug

#### **Fiber Optic Connector NMEA 2000 Connector** PV AC Connectors / T-Junction VTC ВМС · Receptacle (Jack) & Field Available in Micro Style "M12" VTC (T-Junction / SMC) • 3 or 4 Contacts Installable 5P Conn & Mini Style "7/8" 5P • 3 & 4 Contacts (Plug) available • 300 V/AC, 5A Drop, 30A Trunk • 300V AC, 17A Conn for • For SC & LC types drop and trunk lines respectively • IP 67 waterproof • Cable TC-ER, UV resistant • Lock Bayonet Type (2 points & 3 Compatible with Industrial Bus • UV Resistant • Operating temperature : -40°C ~ 105°C points) Systems (Devicenet & Profibus) • Operating temperature : • UV Resistant · Compact and rugged design Ambient: -40°C ~ +85°C · Safety Locking · Operating temperature available in IP67/IP68 unmated Upon Limited Temperature:+105°C ▮ • ETL approved according to UL © Field installable: -40°C ~ 105°C waterproof to withstand harsh Intertek approved to UL6703A & # 6703A © Receptacle: -40°C ~ 105°C UL9703 · Overmolded with cable, marine environments IP67 mated Available in Stamped, screw-in, • Uninterrupted cable - Lower plug-nplay power drop then conventional • IP 67 waterproof PCB and solder contacts Panel mounts (M12 90° PCB), · Touch Safe (IP2X) cabling systems Field Installable, Tee Adapters, · Various configurations of pitch Molded With Cable & Junction and T Connector Quantity Boxes available • Cable End-Cap and Cable Joiner Operating temperature © Receptacle: -40°C ~ 85°C · Ease of installation and service Overmolded with Cable: -20°C ~ 80°C © Field installable Nylon+GF: -40°C~105°C PU: -20°C~85°C · Corrosion & Vibration Resistant Thin & Thick PVC Cables available (Sun, Oil Resistant & Flame rated) Various cable lengths to match installation requirements NMEA 2000® approved P 13-1 P 14-1 P 15-1

T-Junction (VTC)

\* T-Junction (VTC)

<sup>\*</sup> Design and specification are subject to change without notice.

Cable Joiner	Cable Gland - Anti-UV	Vent Connector	RBL Connector
Simple and reliable cable interconnections For various cable OD and wire sizes Cable OD range 6mm~16mm Wire range 10AWG~22AWG Standard crimping butt terminals or screw terminal blocks UV Resistant Operating temperature Field installable PPE: -40°C~105°C Nylon: -40°C~105°C  Safety locking available	Various options available, from 1"-20UNEF, M8, M12, M16, M20, M25, M32, M40, PG7, PG9, PG11, PG13.5, PG16 to PG29 Easily find suitable items for different cable OD Fit into panle thinkness from max 3.0 mm to max 9.0 mm Product length (with strain relief) from 60.0mm to 96.0mm Product length (without strain relief) from 22.0 mm to 60.0mm UV Resistant Operating temperature Receptacle: -20°C~105°C IP67 waterproof	M12 . M8 available upon request Air permeability: 12 sec/100 cm3 or 10 sec/100 cm3 Water entry pressure: 100kPa Panel thickness max 6.5 mm UV Resistant Operating temperature Receptacle: -20°C~105°C IP67 unmated	Snap-in with Latch Type Receptacle, Overmolded With Cable & Field Installable available Contacts SA UV Resistant IP67 waterproof mated or unmated Operating temperature Overmolded with Cable: -20°C~80°C Field installable: -40°C~105°C Receptacle: -40°C~105°C Customizations are possible
P 16-1  * 6~10 mm  * 8~10mm  * 10~12mm  * 12~16mm	* 1"-20 * M40  * M8 * PG7  * M12 * PG9  * M16 * PG11  * M20 * PG13  * M25 * PG16	P 18-1 * M12 Vent Connector	P 19-1  * Middle Size

#### X-Lok Connector



- Push Lock Type
- Receptacle, Overmolded With Cable & Field Installable available
- 3 contacts
- 20A
- UV Resistant
- IP67 waterproof mated or unmated
- Operating temperature
   Overmolded with Cable: -20°C~80°C
   Field installable: -40°C~105°C
   Receptacle: -40°C~105°C
- Customizations are possible



P 20-1

\* Middle Size

<sup>\*</sup> Design and specification are subject to change without notice.

X-Lok Connector

## **Shortcut by Markets**

Renewable Energy			
> Photovoltaic solar (PV) : Micro Inverter,	Inverter, Solar tracke	<u>r</u>	
Circular Connector	P. 1-1	RJ Connector	P. 8-1
Power Connector   25A(PWH) & 30A (PWJ)	P. 2-1	PV AC Connectors / T-Junction Connector	P. 15-1
M Series Sensor Connector	P. 3-1	Cable Joiner	P. 16-1
USB Connector	P. 4-1		
* More to know: Safetly Locking & Touch Safe available			

Concentrated solar power (CSP) : Heliostat	parabolic trough		
Circular Connector	P. 1-1	RJ Connector	P. 8-1
M Series Sensor Connector	P. 3-1	RBL Connector	P.19-1

P. 20-1

<sup>\*</sup> More available: Y-Connector, T-Connectors, Distribution Boxes, T & Y-Splitters

> Wir	nd : Turbine			
Pow	er Connector   8A(PWF) & 25A (PWH)	P. 2-1	D- SUB Connector	P. 6-1
M S	eries Sensor Connector	P. 3-1	RJ Connector	P. 8-1

<sup>\*</sup> More available: Y-Connectors, Distribution Boxes, T&Y Splitters

1	ndustrial Automation			
>	Industrial robots, Industrial lifts, Communica	tion panels, Pac	kaging, Conveyors, Sensors, Switches	
	M Series Sensor Connector	P. 3-1	D- SUB Connector	P. 6-1
	USB Connector	P. 4-1	RJ Connector	P. 8-1

<sup>\*</sup> More available: M12-RJ45 Ethernet Adaptor, Passive Distribution boxes, T & Y splitters

LED						
Outdoor Displays and Billboards, Outdoor Signs & Signage, Architectural Lighting, AV and Entertainment Systems						
Tunnel Lighting, General Lighting, Aircraft Cabin L	Tunnel Lighting, General Lighting, Aircraft Cabin Lighting, Automotive Lighting, Train Wagon Lighting, Ships and Cargo					
Lighting, Bus Interior Lighting						
Circular Connector	P. 1-1	RJ Connector	P. 8-1			
Power Connector   20A(PWC), 25A(PWH) & 30A (PWJ/PWL)	P. 2-1	PV AC Connectors / T-Junction Connector	P.15-1			
M Series Sensor Connector	P. 3-1	SSL Connector	P. 9-1			
RBL Connector	P.19-1	X-Lok Connector	P. 20-1			

<sup>\*</sup> More available: Hybrid Connecto

Marine						
> Radar, Communications, Audio entertainm	ent, Navigation sy	vstem & GPS, Fish finders, Instruments / Gaug	ges, Autopilot			
Circular Connector	P. 1-1	NMEA 2000 Connector	P. 14-1			
USB Connector	P. 4-1	PV AC Connectors / T-Junction Connector	P. 15-1			
D- SUB Connector	P. 6-1	Cable Joiner	P. 16-1			
RJ Connector	P. 8-1					

<sup>\*</sup> More available: Adapter, Pre-Cabling Systems & Solutions

<b>Broadband Wireless Access</b>			
> Outdoor Access Points, Outdoor Bridge and Transmitter, Antennas	es, Outdoor Backhaul ,	Outdoor Repeater, Outdoor Base	Stations, Satellite Receiver
Circular Connector	P. 1-1	RJ Connector	P. 8-1
M Series Sensor Connector	P. 3-1	Cable Joiner	P. 16-1
USB Connector	P. 4-1	Vent Connector	P. 18-1
D- SUB Connector	P. 6-1		

Smart Grids / Advanced Metering Infrastruc	ture (AMI)		
> Smart meters : Water meter, Electricity meter	r, Gas meter		
Circular Connector	P. 1-1	PV AC Connectors / T-Junction Connector	P. 15-1
Power Connector	P. 2-1	Cable Joiner	P. 16-1
USB Connector	P. 4-1	Vent Connector	P. 18-1
RJ Connector	P. 8-1		
<b>Construction Machineries / Heavy Vehicles</b>			
> Bus, Trucks, RV, Utilities vehicles, Excavator,	Backhoe loade	r, Crane, Forklift, Bulldozer, Tractors	
Circular Connector	P. 1-1	D- SUB Connector	P. 6-1
Power Connector	P. 2-1	RJ Connector	P. 8-1
M Series Sensor Connector	P. 3-1	Cable Joiner	P. 16-1
USB Connector	P. 4-1	Vent Connector	P. 18-1
RBL Connector	P.19-1	X-Lok Connector	P. 20-1
* More available: T&Y Connector, T&Y Splitters, Hybrid Connector	or, Distribution box		
IP Closed-circuit Television (IP CCTV)			
> Speed Dome Cameras, Outdoor Dome Camer	ras, Remote Vid	eo Remote Control Device, IP Traffic Control	, Homeland
Security Prevention and Protection Equipmen	t, IR Sensor, Ch	emical & Radioactive, Detection Device, Cor	ntainer Security
<u>Devices</u>			
Circular Connector   Mini (A) & Standard (B)	P. 1-1	RJ Connector	P. 8-1
Power Connector   8A(PWF) & 25A (PWH)	P. 2-1	Cable Joiner	P. 16-1
M Series Sensor Connector	P. 3-1	Vent Connector	P. 18-1
D- SUB Connector	P. 6-1		
Medical Devices			
> Electrical beds, Wheelchair controller			
Circular Connector	P. 1-1	Micro-USB	Available soon
Breakaway Connector	Upon req		
RBL Connector	P.19-1	X-Lok Connector	P. 20-1
Hybrid Electric Vehicle (HEV) / Electric Veh	icle (EV)		
> Scooters, Bikes, Golf Carts, Utilities Vehicles	<u>i</u>		
Circular Connector	P. 1-1	USB Connector	P. 4-1
Power Connector	P. 2-1	D- SUB Connector	P. 6-1
M Series Sensor Connector	P. 3-1	RJ Connector	P. 8-1
RBL Connector	P.19-1	X-Lok Connector	P. 20-1
* More available: BMC Series			
MRT / Railway			
> Traffic System, Sign and Lighting System, Se			
Power Connector   8A(PWF) & 12A (PWE)	P. 2-1	RJ Connector	P. 8-1
M Series Sensor Connector	P. 3-1	PV AC Connectors / T-Junction Connector	P. 15-1
USB Connector	P. 4-1	Cable Joiner	P. 16-1
D- SUB Connector RBL Connector	P. 6-1 P.19-1	X-Lok Connector	P. 20-1
* More available: BMC Series	P.19-1	A-LOR COIIIIECTOI	P. ZU-1
Testing and Measurement Equipment			

P. 1-1

P. 3-1

P. 20-1

USB Connector

RJ Connector

Circular Connector

X-Lok Connector

M Series Sensor Connector

P. 4-1

P. 8-1

<sup>\*</sup> Design and specification are subject to change without notice.

Sa	Safety Detection and Warning System						
>	> Tsunamy Warning Devices, Landslide Detection and Warning						
	Circular Connector	P. 1-1	RJ Connector	P. 8-1			
	M Series Sensor Connector	P. 3-1	Cable Joiner	P. 16-1			
	JSB Connector	P. 4-1	Vent Connector	P. 18-1			
	RBL Connector	P.19-1	X-Lok Connector	P. 20-1			

<sup>\*</sup> More available: T&Y Connectors, T&Y Splitters, Distribution Box

<b>Agricultural and Farming</b>	Electronic System			
> Electric Fence System, I	Electronic Tags and Tracking, D	Device,	Agriculture Weighting Scale, Measuring D	Devices, Diary Farming
Devices				
Circular Connector	P.	. 1-1	RJ Connector	P. 8-1
M Series Sensor Connector	P.	. 3-1	PV AC Connectors / T-Junction Connector	P. 15-1
USB Connector	P.	. 4-1	Cable Joiner	P. 16-1
D-Sub Connector	P.	. 6-1	RBL Connector	P.19-1
X-Lok Connector	P.	. 20-1		

<sup>\*</sup> More available: T&Y Connectors, T&Y Splitters, Distribution Box

C	Commercial Military Devices							
>	> Rugged Notebook, Night Vision Google, Miniature Rugged Camera, Rugged Tablet, Rugged Communication Devices							
	Circular Connector	P. 1-1	USB, Mini and Micro-USB Connector	P. 4-1				
	Power Connector   8A(PWF) & 25A (PWH)	P. 2-1	D- SUB Connector	P. 6-1				
	M Series Sensor Connector	P. 3-1	RJ Connector	P. 8-1				
	X-Lok Connector	P. 20-1						

<sup>\*</sup>More available: Breakway connector

Spa Controller			
Circular Connector	P. 1-1	LED Connector	P. 10-1
M Series Sensor Connector   M8 & M12	P. 3-1	PPC Connector	Upon request

Metal D	Metal Detectors						
> Porta	> Portable Metal Detectors, Airport & Port Security Detection Devices						
Circula	r Connector	P. 1-1	RJ Connector	P. 8-1			
M Serie	es Sensor Connector   M12	P. 3-1					

Fuel Cell Technologies			
Circular Connector	P. 1-1	RJ Connector	P. 8-1
USB Connector	P. 4-1	PV AC Connectors / T-Junction Connector	P. 15-1
RBL Connector	P.19-1		

<sup>\*</sup> More available: BMC Series

UV Water Filtering			
Circular Connector	P. 1-1	D- SUB Connector	P. 6-1
Power Connector	P. 2-1	RJ Connector	P. 8-1
USB Connector	P. 4-1	RBL Connector	P.19-1
X-Lok Connector	P. 20-1		

<sup>\*</sup> More available: T&Y Connectors, T&Y Splitters, Distribution Box

E	Electronic Faucets and Shower	
Γ	PPC Connector	Upon request

## **Circular Connector**









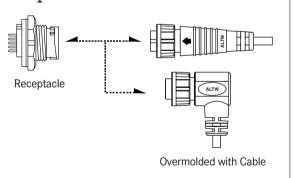


## **Circular Connector**

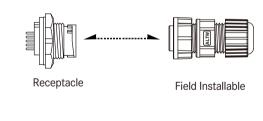


## **Range Overview**

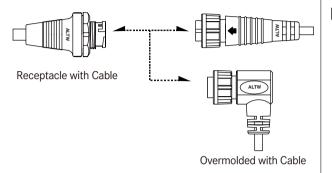




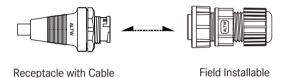
## $\triangle$ Receptacle To Overmolded with Cable $|\triangle|$ Receptacle To Field Installable

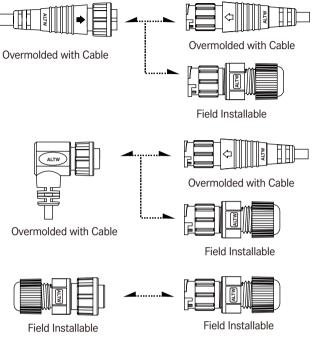


## $\triangle$ Receptacle with Cable to Overmolded $|\triangle|$ In Line with Cable

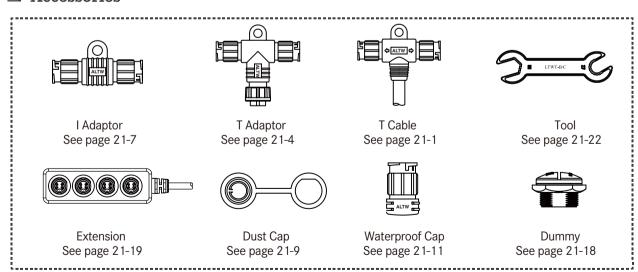


## **∠** Receptacle with Cable to Field Installable





### △ Accessories



<sup>\*</sup> Design and specification are subject to change without notice.

## **Specification**

Identifications	A Size (Mini Size: 7/16"-28 UNS) B Size (Standard Size: 5/8"-27 UNS) C Size (Middle Size: 13/16"-28 UNS) D Size (Large Size: 1"-20 UNEF) E Size (Macro Size: 1 3/16"-20 UNS)
Description	Receptacle Receptacle with cable Overmolded with Cable Field Installable
Current Rating / Data	2A, 5A, 10A, 20A, 5A+2A, 10A+2A, 10A+5A, 20A+2A, 20A+5A
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): Nylon+GF, UL Recognized
Waterproof Rating	IP66~68
Temperature Range	Receptacle: -40°C~105°C Receptacle with cable: -20°C~80°C Overmolded with Cable: -20°C~80°C Field installable: -40°C~105°C
Contact Resistance	$\leq 10 m\Omega$
Insulation Resistance	$\geq 100 M\Omega$ at DC500V
Durability	1000 cycles
Breakdown Voltage	≥ AC1000V / 1 minute
More to know	Salt Spray Corrosion Test: 48H Standard Cable Length: 01~99M

**Ordering Information** 1-2 3 4 5 6-7 8 Specification / Current Rating >Mini Size >Middle Size >Macro Size (AU) 2A (CU) 2A (ED) 5A (AD) 5A (CD) 5A (CB) 10A >Others >Mini Size Metal (CC) 20A (GBD) 10A+5A (Between Standard (ASU) 2A (CDU) 5A+2A Size & Middle Size) (ASD) 5A (CBU) 10A+2A (MAB) 10A (Equivalent to AMP) (CBD) 10A+5A (PLD) 5A (Size 12) >Standard Size (CGU) 16A+2A (BU) 2A (BD) 5A >Large Size **(BB)** 10A (DU) 2A (BDU) 5A+2A (**DD**) 5A (BBD) 10A+5A (DC) 20A (DCU) 20A+2A >Standard Size Metal (DCD) 20A+5A (**BSU**) 2A (BSD) 5A >Large Size Metal (BSB) 10A (DSD) 5A **Number of Contacts** 02, 03.... EX. (02) = 2 Contacts Connector Body (Style) > For Receptacle > For Overmolded with Cable > For Field installable (P) Front Fastened (B) Without Strain Relief (A) With Strain Relief (R) Rear Fastened (B) Without Strain Relief Connector (Housing) Gender (F) Female Connector (M) Male Connector **Contact Gender** (M) Male (D) Female (Power) + Male (Signal) (E) Male (Power) + Female (Signal) (F) Female Assemble Style > For Receptacle > For Overmolded with Cable (S) Solder Type (M) Overmolded with Cable (B) Screw in Type > For Field Installable (P) 180° PCB Type (A) Field installable (Solder) (R) 90° PCB Type (B) Screw in Type **Mating Style** (L) 2 Points Lock Bayonet (T) 3 Points Lock Bayonet (S) Screw Thread (Q) Push Lock Backshell > For Overmolded with Cable > For Field Installable > For Receptacle (C) Circular (L) Straight (L) Straight (S) Square (R) Right Angle **Waterproof Rating** (6) IP 66 (7) IP 67 (8) IP 68 More Information (C00) Similar Standard with > For Overmolded with Cable TC-ER Cable (□)+(■): Cable Type + Cable Length EX. (A01) = UL2464 Cable + 1M ( ): Cable Type ( ): Cable Length > For Receptacle

(A) UL2464 Cable

(B) UL2586 Cable

(C) Power Cable(TC-ER)

(001), (002).....

Versions

Without Cable : Different

From 1M to 99M

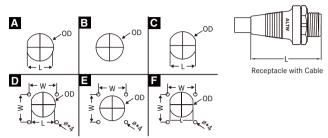
EX. (01) = 1M

<sup>\*</sup> Design and specification are subject to change without notice.

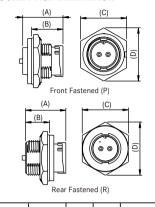
## **Physical Dimension**

### **∠** Receptacle

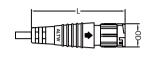
Panel Cut-Out



#### Connector Dimension



## ○ Overmolded with Cable



with Strain Relief / Straight

Female

15.2

S-20.0 L-18.0

Male

13.5

13.5

14.6

14.6

14.6

20.0

22.5

22.5

19.4

L-22.2 S-25.4

L-22.2 S-25.4

S-32.0 L-28.5

S:32.0 L:28.5

28.5

S:32.0 L:28.5

33.3

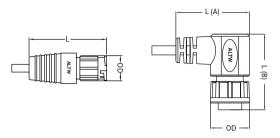
26.6

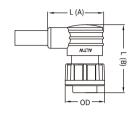
23.0

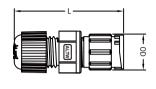
1							
Current Ratin	g	Dimension	Туре	L/W	OD	ø	L (Connector Body)
Size	Metal	Connector Gender			Male		
	-	2A(AU)	Α	10.4	10.9	-	40.5
	- Metal	2A(ASU)	D D	10.4 / 12.7 10.4/12.7	10.9	3.05	-
Mini Size	Wietai	5A(AD)	A			3.03	
		` '		10.4	10.9	-	40.5
	Metal	5A(ASD)	D	10.4 / 12.7	10.9	3.05	-
	-	2A(BU)	Α	14.8	15.6	-	42.6
	Metal	2A(BSU)	В	-	15.6	-	-
	Wetai	ZA(B30)	С	14.0	16.0	-	-
	-	5A(BD)	Α	14.8	15.6	-	42.6
Standard Size	Metal	5A(BSD)	B E	- 16.0	15.6 15.6	- 3.1	-
	-	5A+2A(BDU)	Α	14.8	15.6	-	42.6
	-	10A(BB)	А	14.8	1.8 15.6 -		42.6
	Metal	10A(BSB)	С	14.1	15.6	-	-
	-	10A+5A(BBD)	Α	14.8 15.6		-	42.6
	-	2A(CU)	А	19.4	20.8	1	-
	-	5A(CD)	Α	19.4	20.8	1	47.0
	-	5A+2A(CDU)	Α	19.4	20.8	1	-
Middle Size	- 10A(CB)		Α	19.4	20.8	-	47.0
	-	10A+2A(CBU)	Α	19.4	20.8	-	-
	-	10A+5A(CBD)	Α	19.4	20.8	-	59.5
	-	20A(CC)	Α	19.4	20.8	-	47.0
	-	2A(DU)	Α	23.6	25.6	-	-
	-	5A(DD)	Α	23.6	25.6	1	-
Larga Cin-	-	5A(DD)	D	23.6/24.4	25.6	3.1	-
Large Size	Metal	5A(DSD)	E F	24.8/24.5	24.8	3.1	-
	-	204(DC)		23.2/24.5	25.6	3.1	-
		20A(DC)	A D	23.6	25.6		
	-	20A(DC)		23.6/24.4	25.6	3.1	-
	-	20A+2A(DCU) 20A+5A(DCD)	A	23.6	25.6 25.6	-	-
Macro Size		5A(ED)	D	29.0/30.1	30.1	3.5	
IVI aci U Size	-	10+5A(GBD)	-	-	-	-	-
Others	-	10A(MAB)	-	-	-	-	-
	-	5A(PLD)	С	11.3	12.8	-	-
		07.(1.20)					

Α	В	С	D	Panel Thickness Max			L	-
				Lock Type	Screw Type		Female	Male
P:18.4 R:18.0	P:14.0 R:10.8	15.7	18.1	P:3.5 R:5.0	P:5.0 R:5.0		43.5	44.5
18.6	14.0	15.7	18.1	P:3.5	-	1	-	-
P:18.4 R:18.0	P:14.0 R:10.8	15.7	18.1	P:3.5 R:5.0	P:5.0 R:5.0		43.5	44.5
18.6	14.0	15.7	18.1	P:3.5	-	1	-	-
P:18.0 R:18.0	P:14.0 R:10.65	20.6	23.5	P:4.5 R:5.0	P:4.0 R:5.0		55.5	59.0
P:18.8 R19.8	P:16.3 R:11.3	22.0	25.4	-	P:5.0 R:7.0		-	-
P:18.0 R:18.0	P:14.0 R:10.65	20.6	25.4	P:4.5 R:5.0	P:4.0 R:5.0		55.5	59.0
P:18.0 R:19.8	P:14.0 R:11.3	P:21.0 R:22.0	P:23.9 R:25.4	-	P:4.4 R:7.0		-	-
P:18.0 R:18.0	P:14.0 R:10.65	20.6	23.5	P:4.5 R:5.0	P:4.0 R:5.0		55.5	-
P:18.0 R:18.0	P:14 R:10.65	20.6	23.5	P:4.5 R:5.0	P:4.0 R:5.0		55.5	59.0
19.8	11.3	22.0	25.4	-	R:7.0	I [	-	-
P:18.0 R:18.0	P:14.0 R10.65	20.6	23.8	P:4.5 R:5.0	P:4.0 R:5.0		43.0	59.0
17.0	14.0	25.4	29.3	P:4.0	P:3.0		60.0	-
P:17.0 R:18.0	P:14.0 R:10.0	25.4	29.3	P:4.0 R:4.0	P:3.0 R:4.0		60.0	60.0
18.0	14.0	25.4	29.3	P:4.0	P:3.0		60.5	-
P:17.0 R:18.0	P:14.0 R:10.0	25.4	29.3	P:4.0 R:4.0	P:3.0 R:4.0		60.0	-
18.0	15.0	25.4	29.3	P:4.0	-	1 [	60.3	-
19.5	F:15 R:11.5	25.4	29.3	P:4.0	P:3.0		60.0	-
P:17.0 R:18.0	P:14.0 R:10.0	25.4	29.3	P:4.0 R:4.0	P:3.0 R:4.0		60.0	-
18.0	14.8	28.5	33.0	P:4.0	-		59.5	-
P:18.0 R:18.0	P:14.9 R:10.3	28.5	33.0	P:4.0 R:4.0	P:4.0 R:4.0		59.5	59.5
17.9	14.6	29.0	33.5	-	P:3.5	ΙГ	-	-
18.0	14.6	29.0	33.4	-	P:3.5	1	-	-
P:18.0 R:18.0	P:14.9 R:10.3	28.5	33.0	P:4.0 R:4.0	P:4.0 R:4.0		59.5	-
18.8	14.8	28.5	33.0	P:4.0	_	1	63.5	69.7
19	P:14.9/R:10.8	28.5	33.0	P:4.0/R:3.5	P:4.0/R:3.5	1	59.5	59.5
17.6	14.9	34.9	4.0	P:3.5	,5.0	1	70.0	
-	- 14.7	-	-	-	-	۱ŀ	68.7	73.5
-	-	-	-	-	-	1	61.5	61.5
15.9	13.4	15.8	17.3	P:3.0	-	1	-	-
						ıL		

### → Field installable







without Strain Relief / Straight

with Strain Relief / Right Angle

without Strain Relief / Right Angle

without Strain Relief / Straight

	L	C	D		L	[A]	
Female	Male	Female	Male		Female	Male	Fer
34.0	35.3	15.2	13.5		-	-	
-	-	-	-		-	-	
34.0	35.3	15.2	13.5		-	-	
-	-	-	-		-	-	
43.0	45.0	S-20.0 L-18.0	14.6		34.0	-	3
37.8	-	19.0	-		-	-	
43.0	45.0	S-20.0 L-18.0	14.6		34.0	-	3
37.8	1	19.0	-		1	1	
43.0	-	S-20.0 L-18.0	-		34.0	1	3
43.0	45.0	S-20.0 L-18.0	14.6		34.0	1	3
-	-	-	-		-	-	
43.0	45.0	S-20.0 L-18.0	14.6		34.0	1	3
41.8	1	L-22.2 S-25.4	-		1	1	
41.8	41.8	L-22.2 S-25.4	20.0		42.5	1	3
41.8	1	L-22.2 S-25.4	-		1	1	
41.8	-	L-22.2 S-25.4	-		1	1	
-	-	-	-		-	-	
41.8	-	L-22.2 S-25.4	-		-	-	
41.8	-	L-22.2 S-25.4	-		-	1	
52.0	-	S-32.0 L-28.5	-		-	-	
52.0	52.0	S-32.0 L-28.5	22.5		44.1	-	4
49.3	-	30.0	-		40.0	-	4
49.3	-	30.0	-		40.0	-	4
52.0	-	S32.0 L-28.5	-		-	-	
-	-	-	-		-	-	
-	-	-	-		44.1	-	4
-	-	-	-		-	-	
60.2	65.0	26.6	25.0		-	-	
53.0	53.0	23.0	19.4	1	-	-	
-	-	-	-		-	-	Т

ı	_ [A]		[B]	"	טט
Female	Male	Female	Male	Female	Male
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
34.0	-	35.0	-	S-20.0 L-18.0	-
-	-	-	-	-	-
34.0	-	35.0	-	S-20.0 L-18.0	-
-	-	-	1	-	-
34.0	-	35.0	-	S-20.0 L-18.0	-
34.0	-	35.0	1	S-20.0 L-18.0	1
-	-	-	-	-	-
34.0	-	35.0	-	S-20.0 L-18.0	-
-	-	-	-	-	-
42.5	-	39.5	-	22.2	-
-	-	-	-	-	-
-	-	-	1	-	1
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
44.1	-	49.8	-	S-32.0 L-28.5	-
40.0	-	40.0	-	30.0	-
40.0	-	40.0	-	30.0	-
-	-	-	1	-	-
-	-	-	-	-	-
44.1	-	49.8	-	28.5	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-
-	-	-	-	-	-

L	[A]	L	[B]	c	D		L		0	D
Female	Male	Female	Male	Female	Male		Female	Male	Female	Male
24.0	-	29.4	-	15.2	-		41.5	41.5	15.2	13.5
-	-	-	-	-	-		-	-	-	-
24.0	-	29.4	-	15.2	-		41.5	41.5	15.2	13.5
-	-	-	-	-	-		-	-	-	-
-	-	-	-	-	-		44.0	43.0	S-20.0 L-18.0	14.6
30.0	-	33.6	-	19.0	-		-	-	-	-
25.5	1	31.0	1	S-20.0 L-18.0	1		43.0	43.0	S-20.0 L-18.0	14.6
30.0	1	33.6	1	19.0	1		-	1	-	-
-	1	-	-	-	1		43.0	-	S-20.0 L-18.0	-
25.5	1	31.0	-	S-20.0 L-18.0	1		43.0	43.0	S-20.0 L-18.0	14.6
-	-	-	-	-	-		-	-	-	-
25.5	-	31.0	-	S-20.0 L-18.0	-		43.0	43.0	S-20.0 L-18.0	14.6
-	-	-	-	-	-		48.2	-	L-22.2 S-25.4	-
-	1	-	1	1	ı		48.2	48.65	L-22.2 S-25.4	20.0
1	1	1	1	1	ı		-	1	1	-
	1	1	-	1	-		48.2	1	L-22.2 S-25.4	-
-	-	-	-	-	-		49.7	-	23.0	-
-	-	-	-	-	-		-	-	-	-
-	-	-	-	-	-		48.2	-	L-22.2 S-25.4	-
-	-	-	-	-	-		-	-	-	-
-	-	-	-	-	-		54.9	54.9	S-32.0 L-28.5	23.0
40.0	-	40.0	-	30.0	-		-	-	-	-
40.0	-	40.0	-	30.0	-		-	-	-	-
-	-	-	-	-	-		54.9	54.9	S-32.0 L-28.5	23.0
-	1	-	-	-	-		62.8	59.3	L-28.5	23.0
-	-	-	-	-	-		59.9	59.9	L-28.5	23.0
-	-	-	-	-	-		-	-	-	-
-	-	-	-	-	-			-	-	-
-	-	-	-	-	-		-	-	-	- 45.0
						١	39.2	35.3	15.0	15.0

Dimensions are shown in millimeters

<sup>\*</sup> Design and specification are subject to change without notice.

## **Contact Configuration**

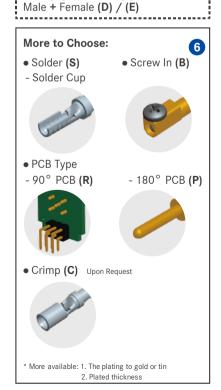
	Mini Size (A)						Standard Size (B)							
		J)(ASU)		AD)			2A <b>(BU</b>					BSD)	10A	<u> </u>
45	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FM	MF or FM
2 Pin			R C F		R				RICIE	RICIE	R C F		RICIE	RICIE
3 Pin			R C F						AA DIGIE	AA A	AA A		R C F	RCF
4 Pin	R C F		, 0  .						RICIE	RICIE	A A		RCF	<u> </u>
	0								RICIE	RICIE	R C F		K T O T T	
									RICIE	RCF	RICIE			
7 Pin	N   O   I								R C F	KĮOĮI	RCF			
8 Pin									RICIF		R C F			
9 Pin														
10 Pin							R C F							
12 Pin							R C F							
14 Pin														
18 Pin														
20 Pin														
21 Pin														
22 Pin														
31 Pin														

<sup>\*</sup> Standard Size Metal (BSU): 10 Contact

		Standaı	rd Size	(B)			Middle	Size (C)	)
10A <b>(</b>	BSB)	5A+2A	(BDU)	10A+5	A(BBD)	2A(	CU)		(CD)
MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM
RC									
RICI									
					R C F				
					R C F				
								R C F	RCF
								R C F	P C F
			(0.0)					(A)	A.A.
			4.54					R C F	(4.4.4)
			R C F					RCF	R C F
								R C F	
								RCF	
								R C F	
								RICIF	
								RCF	
						R C F			

R: Receptacle C: Overmolded with Cable F: Field Installable 2A (AU/ASU/BSU/BU/CU/DU) 1 5A (AD/ASD/BD/BSD/CD/DD/ DSD/ED/PLD) 10A (BB/BSB/MAB) ▲ ■ 5A+2A (BDU/CDU) 10A+2A(CBU) ■ 10A+5A(BBD/CBD/GBD) 20A+2A (**DCU**) ≥ **△** 20A+5A (**DCD**) Number of Contacts: Ex.2 contacts (02) Connector (Housing) Gender: Male (M) or Female (F) Contact Gender:

Male (M) or Female (F)



<sup>\*</sup> Design and specification are subject to change without notice.

## **Contact Configuration**

			Middle	Size (C)					Size (0			_arge S	ize (D)	
		(CB)		(CC)					10A+2					)(DSD)
45	MM or FF	MF or FM												
2 Pin														
3 Pin			R C F											
4 Pin	R C F	R C F												
5 Pin	RCF	R C F												
6 Pin	R C F													
7 Pin														
8 Pin							R C	R C	R C F	R C F				
9 Pin														
10 Pin														
12 Pin						R C F								
14 Pin						R C F								
18 Pin													R C F	R C
20 Pin											R C F			
21 Pin														
22 Pin											R C F			
31 Pin														

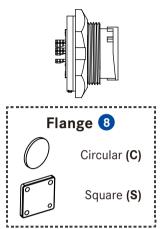
	La	rge Siz	e (D)			Marco	Size (E)			Other	Size		
	(DC)	20A+2A	(DCU)	20A+5A		5A <b>(</b>	ED)		A(GBD)	10A <b>(I</b>	MAB)	5A <b>(P</b>	
MM or FF	MF or FM	MM or FF	MF or FM	MMF or FFM	MFM or FMF	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM
													<b>(2)</b>
													R F
K   C   F													
												R C F	
RCF												R C F	R F
											$\odot$		€
R C F											R C F		R F
PICIE!													
R C F R C F R C F R C F R C F R C F													
RICIF													
								C					
R C F								С					
		R C F	( • • • • • • • • • • • • • • • • • • •										
		RICIF	RICIF										
					R C F								
				RICIF	RICIF								
							R C						

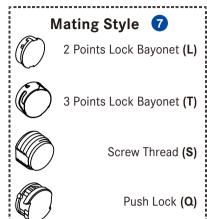
<sup>\*</sup> Design and specification are subject to change without notice.

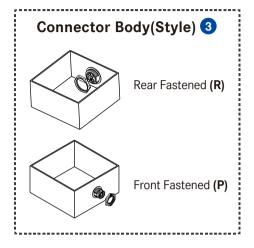


## **Product Features**

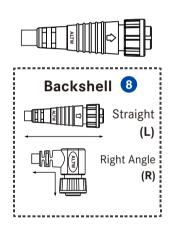
## **∠** Receptacle

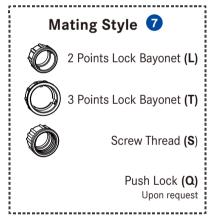


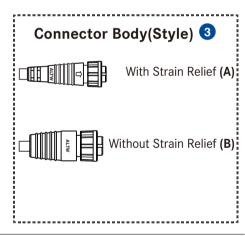




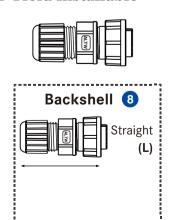
### □ Overmolded with Cable

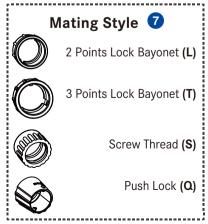


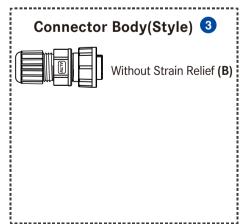




### **∠** Field Installable



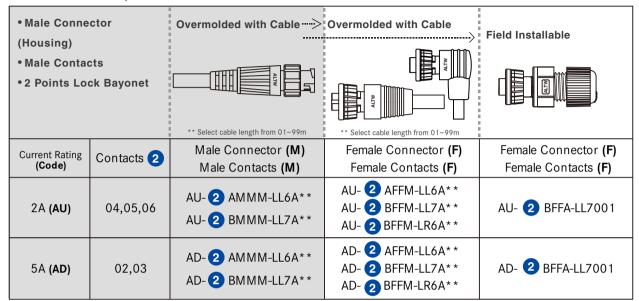




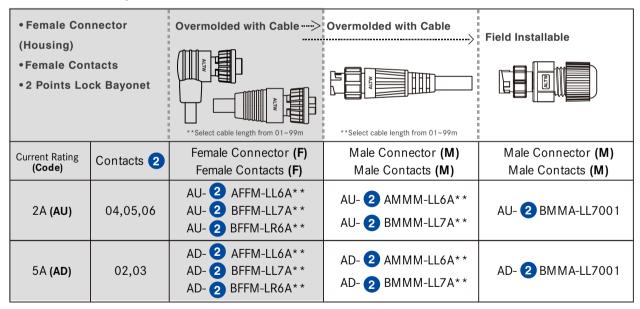
In-line 2 Points Lock Bayonet

## **Find Our Standard Products**

### $\triangle$ Mini Size: 7/16"-28 UNS > In-line



### Mini Size: 7/16"-28 UNS > In-line



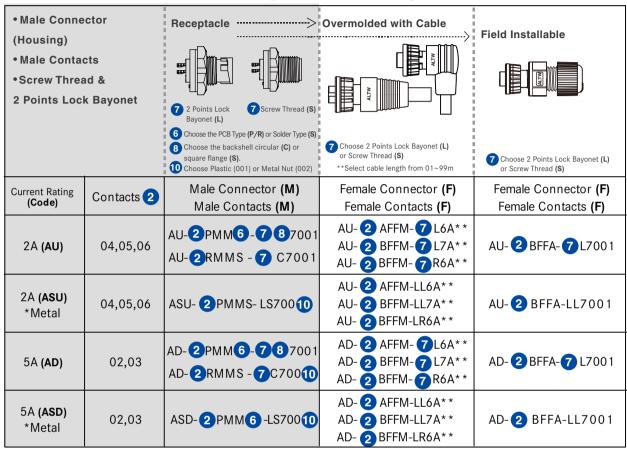
<sup>\*</sup> Design and specification are subject to change without notice.

Mini Size: 7/16"-28 UNS

Receptacle and Mating Pair I Receptacle with Overmolded Cable and Mating Pair Screw Thread & 2 Points Lock Bayonet

IP 66 ~ 68 9
Unmated or Mated

## ightharpoonup Mini Size: 7/16"-28 UNS > Receptacle and Mating Pair



## → Mini Size: 7/16"-28 UNS > Receptacle with Overmolded Cable and Mating Pair

Male Conne     (Housing)     Male Contac     Screw Threa     Points Lock	cts id &	Receptacle  7 2 Points Lock Bayonet (L)  7 Screw Thread (S)	Overmolded with Cable  Overmolded with Cable  Overmolded with Cable  Overmolded with Cable	Field Installable  Choose 2 Points Lock Bayonet (L)
Current Rating (Code)	Contacts 2	**Select cable length from 01~99m  Male Connector (M)  Male Contacts (M)	or Screw Thread (s)  **Select cable length from 01~99m  Female Connector (F)  Female Contacts (F)	Female Contacts (F) Female Contacts (F)
2A <b>(AU)</b>	04,05,06	AU- 2 PMMM-7L7A**	AU- 2 AFFM- 7 L6A** AU- 2 BFFM- 7 L7A** AU- 2 BFFM- 7 R6A**	AU- 2 BFFA- 7 L7001
5A <b>(AD)</b>	02,03	AD- <b>2</b> PMMM- <b>7</b> L7A**	AD- 2 AFFM- 7 L6A** AD- 2 BFFM- 7 L7A** AD- 2 BFFM- 7 R6A**	AD- 2 BFFA- 7 L7001

## Standard Size: 5/8"-27 UNS > In-line

Male Connot (Housing)     Male Conta     2 Points Lo	ıcts	Overmolded with Cable>	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
2A (BU)	10,12	BU- 2AMMM-LL6A** BU- 2BMMM-LL7A**	BU- 2 AFFM-LL6A** BU- 2 AFFM-LR7A** BU- 2 BFFM-LL7A** BU- 2 BFFM-LR6A**	BU- 2 BFFA-LL7001
5A <b>(BD)</b>	02,03,04, 05,06,07,08	BD- 2 AMMM-LL6A** BD- 2 BMMM-LL7A**	BD- 2 AFFM-LL6A** BD- 2 AFFM-LR7A** BD- 2 BFFM-LL7A** BD- 2 BFFM-LR6A**	BD- 2 BFFA-LL7001
10A <b>(BB)</b>	02,03,04	BB- 2 AMMM-LL6A** BB- 2 BMMM-LL7A**	BB- 2 AFFM-LL6A** BB- 2 AFFM-LR7A** BB- 2 BFFM-LL7A** BB- 2 BFFM-LR6A**	BB- 2 BFFA-LL7001

## Standard Size: 5/8"-27 UNS > In-line

Male Conn (Housing)     Male Conta     2 Points Lo	ncts	Field Installable	Overmolded with Cable	Field Installable
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
2A (BU)	10,12	BU- 2 BMMA-LL7001	BU- 2 AFFM-LL6A** BU- 2 AFFM-LR7A** BU- 2 BFFM-LL7A** BU- 2 BFFM-LR6A**	BU- 2 BFFA-LL7001
5A <b>(BD)</b>	02,03,04, 05,06,07,08	BD- 2 BMMA-LL7001	BD- 2 AFFM-LL6A** BD- 2 AFFM-LR7A** BD- 2 BFFM-LL7A** BD- 2 BFFM-LR6A**	BD-2 BFFA-LL7001
10A ( <b>BB)</b>	02,03,04	BB- 2 BMMA-LL7001	BB- 2 AFFM-LL6A** BB- 2 AFFM-LR7A** BB- 2 BFFM-LL7A** BB- 2 BFFM-LR6A**	BB- 2 BFFA-LL7001

Standard Size: 5/8"-27 UNS

In-line

2 Points Lock Bayonet

IP 66 ~ 68 9

## Standard Size: 5/8"-27 UNS > In-line

• Female Co (Housing) • Female Co • 2 Points Lo	ntacts	Overmolded with Cable>  ALTWICE SELECT CABLE length from 01~99m	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector (M) Male Contacts (M)	Male Connector (M) Male Contacts (M)
2A ( <b>BU)</b>	10,12	BU- 2 AFFM-LL6A** BU- 2 AFFM-LR7A** BU- 2 BFFM-LL7A** BU- 2 BFFM-LR6A**	BU- 2 AMMM-LL6A** BU- 2 BMMM-LL7A**	BU- 2 BMMA-LL7001
5A ( <b>BD</b> )	02,03,04, 05,06,07,08	BD- 2 AFFM-LL6A** BD- 2 AFFM-LR7A** BD- 2 BFFM-LL7A** BD- 2 BFFM-LR6A**	BD- 2 AMMM-LL6A** BD- 2 BMMM-LL7A**	BD- 2 BMMA-LL7001
10A <b>(BB)</b>	02,03,04	BB- 2 AFFM-LL6A** BB- 2 AFFM-LR7A** BB- 2 BFFM-LL7A** BB- 2 BFFM-LR6A**	BB- <b>2</b> AMMM-LL6A** BB- <b>2</b> BMMM-LL7A**	BB- <b>2</b> BMMA-LL7001

## Standard Size: 5/8"-27 UNS > In-line

• Female Co (Housing) • Female Co • 2 Points Lo	ntacts	Field Installable	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector (M) Male Contacts (M)	Male Connector <b>(M)</b> Male Contacts <b>(M)</b>
2A ( <b>BU</b> )	10,12	BU- 2 BFFA-LL7001	BU- 2 AMMM-LL6A** BU- 2 BMMM-LL7A**	BU- 2 BMMA-LL7001
5A <b>(BD)</b>	02,03,04, 05,06,07,08	BD- 2 BFFA-LL7001	BD- 2 AMMM-LL6A** BD- 2 BMMM-LL7A**	BD- 2 BMMA-LL7001
10A ( <b>BB</b> )	02,03,04	BB- 2 BFFA-LL7001	BB- 2 AMMM-LL6A** BB- 2 BMMM-LL7A**	BB- 2BMMA-LL7001

Standard Size: 5/8"-27 UNS

In-line 2 Points Lock Bayonet

## Standard Size: 5/8"-27 UNS > In-line

• Female Co	nnector	Overmolded with Cable>	Overmolded with Cable	Field Installable
• Male Conta				
		** Select cable length from 01~99m	** Select cable length from 01~99m	
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Male Connector <b>(M)</b> Female Contacts <b>(F)</b>	Male Connector <b>(M)</b> Female Contacts <b>(F)</b>
5A <b>(BD)</b>	02,03,04, 05,06	BD- 2 AFMM-LL6A** BD- 2 AFMM-LR7A** BD- 2 BFMM-LL7A** BD- 2 BFMM-LR6A**	BD- 2 AMFM-LL6A** BD- 2 BMFM-LL7A**	BD- 2 BMFA-LL7001
10A <b>(BB)</b>	02,03	BB- 2 AFMM-LL6A** BB- 2 AFMM-LR7A** BB- 2 BFMM-LL7A** BB- 2 BFMM-LR6A**	BB-02AMFM-LL6AXX BB-02BMFM-LL7AXX BB-03AMFM-LL6AXX BB-03BMFM-LL7AXX	BB-02BMFA-LL7001 BB-03BMFA-LL7001
5A+2A (BDU)	08 (2+6)	BDU-08AFMM-LL6A** BDU-08AFMM-LR7A** BDU-08BFMM-LL7A**	BDU-08AMFM-LL6AXX* BDU-08BMFM-LL7AXX*	BDU-08BMFA-LL7001
10A+5A (BBD)	06 (2+4)	BBD-2 AFMM-LL6A** BBD-2 AFMM-LR7A** BBD-2 BFMM-LL7A** BBD-2 BFMM-LR6A**	BBD-06AMFM-LL6A** BBD-06BMFM-LL7A**	BBD-06BMFA-LL7001

<sup>★</sup> Upon request

<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle and Mating Pair Screw Thread & 2 Points Lock Bayonet



## Standard Size: 5/8"-27 UNS > Receptacle and Mating Pair ■ Compare the comparison of the compari

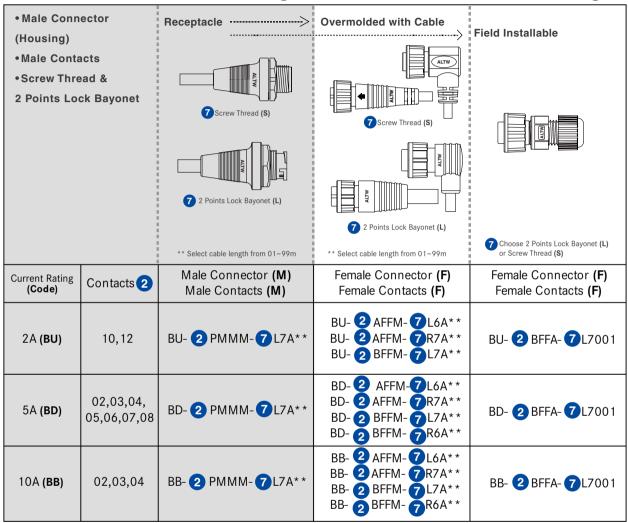
Male Connector  (Housing)		Receptacle		
Male Contacts     Screw Thread &     Points Lock Bayonet		7 Screw Thread (S)	7 Screw Thread (S)	
		7 2 Points Lock Bayonet (L) 6 Choose the PCB Type (P/R) or Solder Type (S)	7 2 Points Lock Bayonet (L)  ** Select cable length from 01~99m	7 Choose 2 Points Lock Bayonet (L) or Screw Thread (S)
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
2A ( <b>BU</b> )	10,12	BU- 2 PMM 6 - 7 C7001 BU- 2 RMMS - 7 C7001	BU- 2 AFFM- 7 L6A** BU- 2 AFFM- 7 R7A** BU- 2 BFFM- 7 L7A** BU- 2 BFFM-LR6A**	BU- <b>2</b> BFFA- <b>7</b> L7001
2A (BSU) *Metal	10	BSU- 2 PMM6 -SC7001 BSU- 2 RMMS-SC7001	BSU-10BFFM-SL7A** BSU-10BFFM-SR6A**	BSU-10BFFA-SL7001
5A ( <b>BD</b> )	02,03,04, 05,06,07,08	BD-2 PMM 6-7C7001 BD-2 RMMS-7C7001 BD-2 RMM 6-LC7001	BD- 2 AFFM-7 L6A** BD- 2 AFFM-7 R7A** BD- 2 BFFM-7 L7A** BD- 2 BFFM-7 R6A**	BD- <b>2</b> BFFA- <b>7</b> L7001
5A ( <b>BSD</b> )	04,05,06, 07.08	BSD- 2 PMM 6 -SC7001 BSD- 06RMMS-SC7001 BSD- 08RMMS-SC7001	BSD- 2 BFFM-SL6A** BSD- 2 BFFM-SR6A**	-
10A <b>(BB)</b>	02,03,04	BB- 2 PMM 6 - 7 C7001 BB- 2 RMMS- 7 C7001 BB- 2 RMM 6 -LC7001	BB- 2 AFFM- 7 L6A** BB- 2 AFFM- 7 R7A** BB- 2 BFFM- 7 L7A** BB- 2 BFFM- 7 R6A**	BB- <b>2</b> BFFA- <b>7</b> L7001
10A (BSB) *Metal	- 04	BSB-04RMMS-SC7001	BSB-04BFFM-SL7A**	-

### Circular Connector I Find Our Standard Products

Standard Size: 5/8"-27 UNS

Receptacle with Overmolded Cable and Mating Pair Screw Thread & 2 Points Lock Bayonet

### Standard Size: 5/8"-27 UNS > Receptacle with Overmolded Cable and Mating Pair

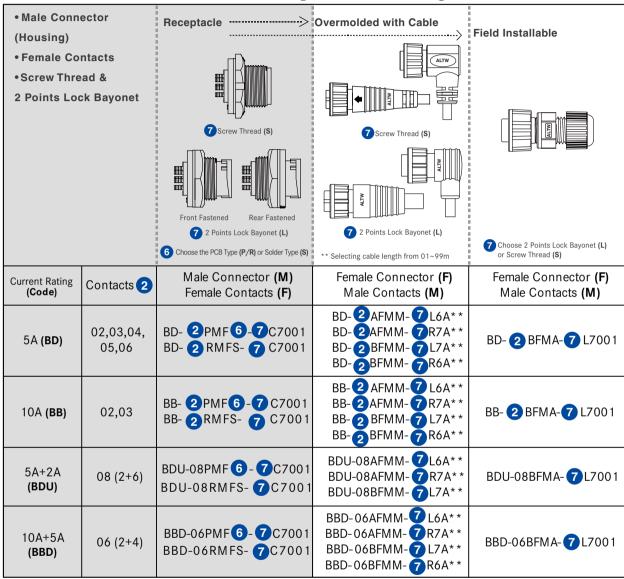


<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle and Mating Pair Screw Thread & 2 Points Lock Bayonet



## Standard Size: 5/8"-27 UNS > Receptacle and Mating Pair → Standard Size: 5/8"-27 UNS > Recep



2 Points Lock Bayonet

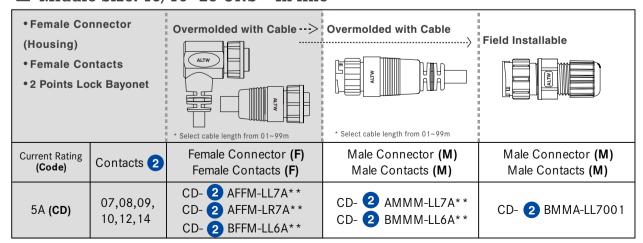
#### Middle Size: 13/16"-28 UNS > In-line

<ul> <li>Male Connector</li> <li>(Housing)</li> <li>Male Contacts</li> <li>2 Points Lock Bayonet</li> </ul>		Overmolded with Cable>	Overmolded with Cable  ALTW  ALTW  Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
5A <b>(CD)</b>	07,08,09, 10,12,14	CD- 2 AMMM-LL7A** CD- 2 BMMM-LL6A**	CD- 2 AFFM-LL7A** CD- 2 BFFM-LL6A** CD- 2 AFFM-LR7A**	CD- 2 BFFA-LL7001

## $\triangle$ Middle Size: 13/16"-28 UNS > In-line

Male Conn     (Housing)     Male Conta     2 Points Lo	acts	Field Installable	Overmolded with Cable  ALTW  ALTW  * Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
5A ( <b>CD</b> )	07,08,09, 10,12,14	CD- 2 BMMA-LL7001	CD- 2 AFFM-LL7A** CD- 2 AFFM-LR7A** CD- 2 BFFM-LL6A**	CD- 2 BFFA-LL7001

## Middle Size: 13/16"-28 UNS > In-line



In-line

2 Points Lock Bayonet

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## Middle Size: 13/16"-28 UNS > In-line

• Female Con (Housing) • Female Con • 2 Points Lo	ntacts	Field Installable	Overmolded with Cable  *** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector (M) Male Contacts (M)	Male Connector <b>(M)</b> Male Contacts <b>(M)</b>
5A (CD)	07,08,09, 10,12,14	CD- 2 BFFA-LL7001	CD- 2 AM MM-LL7A** CD- 2 BM MM-LL6A**	CD- 2 BMMA-LL7001

## Middle Size: 13/16"-28 UNS > In Line

Male Conne (Housing)     Female Con     2 Points Lo	ntacts	Overmolded with Cable>	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts 2	Male Connector <b>(M)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>
5A (CD)	07,08,09	CD-2 AMFM-LL7A** CD-2 BMFM-LL6A**	CD- 2 AFMM-LL7A** CD- 2 BFMM-LL6A**	CD- 2 BFMA-LL7001

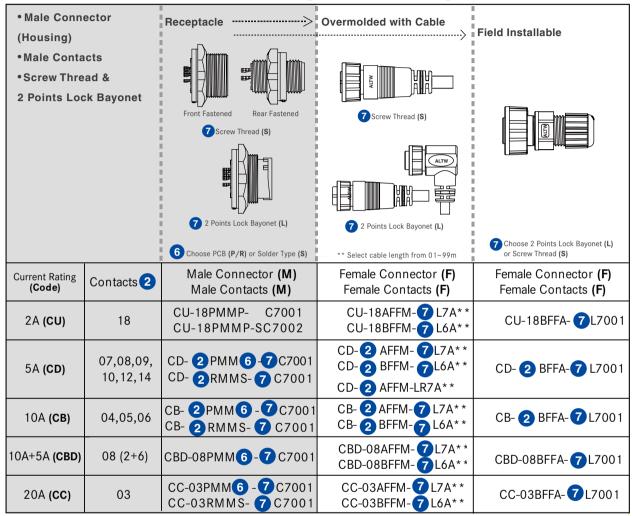
## Middle Size: 13/16"-28 UNS > In Line

<ul> <li>Female Connector</li> <li>(Housing)</li> <li>Male Contacts</li> <li>2 Points Lock Bayonet</li> </ul>		Overmolded with Cable>	Overmolded with Cable	Field Installable
		** Select cable length from 01~99m	** Select cable length from 01~99m	
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Male Connector <b>(M)</b> Female Contacts <b>(F)</b>	Male Connector (M) Female Contacts (F)
5A (CD)	07,08,09	CD-2 AFMM-LL7A** CD-2 BFMM-LL6A**	CD- 2 AMFM-LL7A** CD- 2 BMFM-LL6A**	CD- 2 BMFA-LL7001

Middle Size: 13/16"-28 UNS

Receptacle and Mating Pair Screw Thread & 2 Points Lock Bayonet

#### ightharpoonup Middle Size: 13/16"-28 UNS > Receptacle and Mating Pair

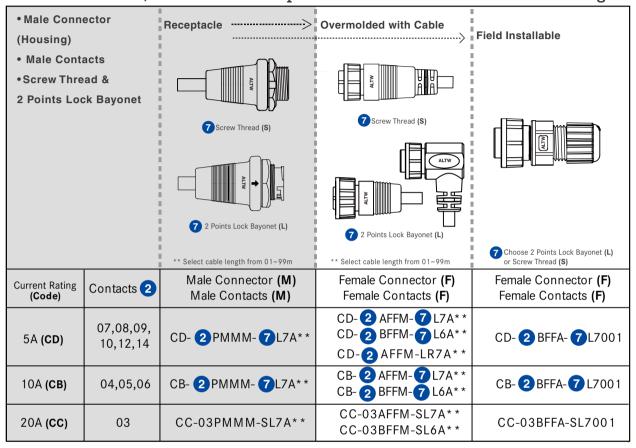


<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle with Overmolded Cable and Mating Pair Screw Thread & 2 Points Lock Bayonet

IP 66 ~ 68 9

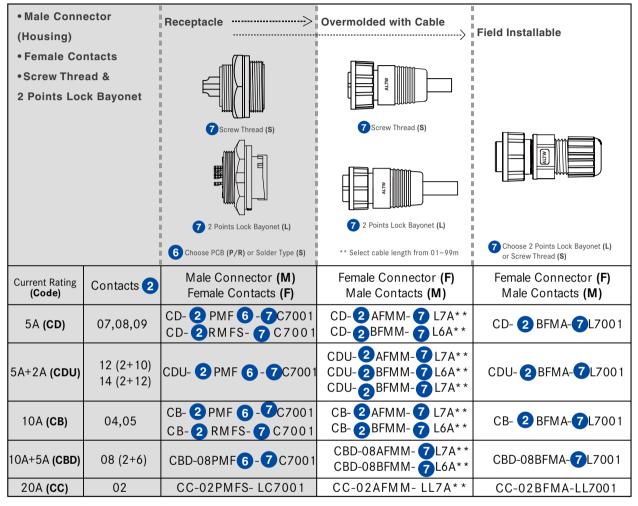
## Middle Size: 13/16"-28 UNS > Receptacle with Overmolded Cable and Mating Pair



Receptacle and Mating Pair

Screw Thread & 2 Points Lock Bayonet

## Middle Size: 13/16"-28 UNS > Receptacle and Mating Pair



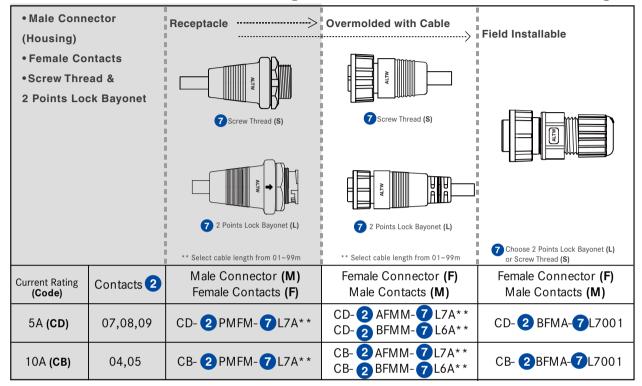
<sup>\*</sup> Design and specification are subject to change without notice.

Middle Size: 13/16"-28 UNS

Receptacle with Overmolded Cable and Mating Pair Screw Thread & 2 Points Lock Bayonet

IP 66 ~ 68 9

#### Middle Size: 13/16"-28 UNS > Receptacle with Overmolded Cable and Mating Pair



Receptacle and Mating Pair 3 Points Lock Bayonet

## Middle Size: 13/16"-28 UNS > Receptacle and Mating Pair

• Male Connect (Housing) • Female Power • 3 Points Lock	r+Male Signal	Receptacle>	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Female Power+Male Signal (D)	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>
10A+2A (CBU)	(3+5)	CBU-08PMDS-TC7001	CBU-08AFEM-TL7A**	CBU-08BFEA-TL7001

## 

Male Connector  (Housing)		Receptacle	Overmolded with Cable	Field Installable
<ul><li>(Housing)</li><li>•Male Power+Female Signal</li><li>•3 Points Lock Bayonet</li></ul>				
			** Select cable length from 01~99m	
Current Rating (Code)	Contacts	Male Connector (M) Male Power+Female Signal (E)	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>
10A+2A (CBU)	(3+5)	CBU-08PMES-TC7001	CBU-08AFDM-TL7A**	CBU-08BFDA-TL7001

<sup>\*</sup> Design and specification are subject to change without notice.

2 Points Lock Bayonet

IP 66 ~ 68 9

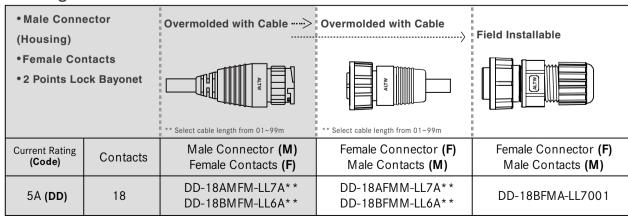
## □ Large Size: 1"-20 UNEF > In-line

Male Connector     (Housing)     Male Contacts     2 Points Lock Bayonet		Overmolded with Cable>		Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
5A <b>(DD)</b>	18	DD-18AMMM-LL7A** DD-18BMMM-LL6A**	DD-18AFFM-LL7A** DD-18AFFM-LR7A** DD-18BFFM-LL6A**	DD-18BFFA-LL7001

## □ Large Size: 1"-20 UNEF > In-line

• Female Connector (Housing) • Female Contacts • 2 Points Lock Bayonet		Overmolded with Cable>	Overmolded with Cable	Field Installable
		** Select cable length from 01~99m	** Select cable length from 01~99m	M 1 0 1 (M)
Current Rating (Code)	Contacts	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector <b>(M)</b> Male Contacts <b>(M)</b>	Male Connector <b>(M)</b> Male Contacts <b>(M)</b>
5A ( <b>DD</b> )	18	DD-18AFFM-LL7A** DD-18AFFM-LR7A** DD-18BFFM-LL6A**	DD-18AMMM-LL7A** DD-18BMMM-LL6A**	DD-18BMMA-LL7001

## □ Large Size: 1"-20 UNEF > In-line



In-line 2 Points Lock Bayonet

## □ Large Size: 1"-20 UNEF > In-line

Female Connector     (Housing)     Male Contacts     2 Points Lock Bayonet		Overmolded with Cable>	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Female Connector (F) Male Contacts (M)	Male Connector (M) Female Contacts (F)	Male Connector <b>(M)</b> Female Contacts <b>(F)</b>
5A <b>(DD)</b>	18	DD-18AFMM-LL7A** DD-18BFMM-LL6A**	DD-18AMFM-LL7A** DD-18BMFM-LL6A**	DD-18BMFA-LL7001

## □ Large Size: 1"-20 UNEF > In-line

Male Connector     (Housing)     Female Power+Male Signal     2 Points Lock Bayonet		Overmolded with Cable   ** Select cable length from 01~99m	Overmolded with Cable  A THE Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Female Power+Male Signal (D)	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>
20A+2A ( <b>DCU</b> )	(3+5)	DCU-08AMDM-LL7B**	DCU-08AFEM-LL7B**	DCU-08BFEA-LL7001
20A+5A <b>(DCD)</b>	(3+9)	DCD-12AMDM-LL7A**	DCD-12AFEM-LL7A** DCD-12AFEM-LR7A**	DCD-12BFEA-LL7001

## $\triangle$ Large Size: 1"-20 UNEF > In-line

Male Conne     (Housing)     Female Pow     2 Points Loc	er+Male Signal	Field Installable>	Overmolded with Cable  **Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Female Power+Male Signal (D)	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>
20A+2A ( <b>DCU</b> )	(3+5)	DCU-08BMDA-LL7001	DCU-08AFEM-LL7B**	DCU-08BFEA-LL7001
20A+5A ( <b>DCD</b> )	(3+9)	DCD-12BMDA-LL7001	DCD-12AFEM-LL7A** DCD-12AFEM-LR7A**	DCD-12BFEA-LL7001

<sup>\*</sup> Design and specification are subject to change without notice.

Large Size: 1"-20 UNEF

In-line
2 Points Lock Bayonet

## □ Large Size: 1"-20 UNEF > In-line

Male Connector     (Housing)     Male Power+Fmale Signal     2 Points Lock Bayonet		Overmolded with Cable>  *** Select cable length from 01~99m	Overmolded with Cable  *** Select cable length from 01~99m	Field Installable
Current Rating (Code) Contacts		Male Connector (M) Male Power+Fmale Signal(E)	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>
20A+2A ( <b>DCU</b> )	(3+5)	DCU-08AMEM-LL7B**	DCU-08AFDM-LL7B**	DCU-08BFDA-LL7001
20A+5A <b>(DCD)</b>	(3+9)	DCD-12AMEM-LL7A**	DCD-12AFDM-LL7A** DCD-12AFDM-LR7A**	DCD-12BFDA-LL7001

## □ Large Size: 1"-20 UNEF > In-line

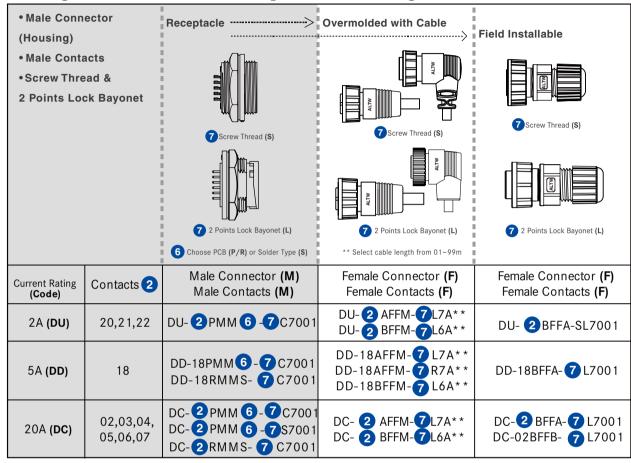
Male Connector     (Housing)     Male Power+Female Signal     2 Points Lock Bayonet		Field Installable	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Male Power+Female Signal (E)	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>
20A+2A (DCU)	(3+5)	DCU-08BMEA-LL7001	DCU-08AFDM-LL7B**	DCU-08BFDA-LL7001
20A+5A <b>(DCD)</b>	(3+9)	DCD-12BMEA-LL7001	DCD-12AFDM-LL7A** DCD-12AFDM-LR7A**	DCD-12BFDA-LL7001

#### Circular Connector I Find Our Standard Products

Large Size: 1"-20 UNEF

Receptacle and Mating Pair Screw Thread & 2 Points Lock Bayonet

## □ Large Size: 1"-20 UNEF > Receptacle and Mating Pair

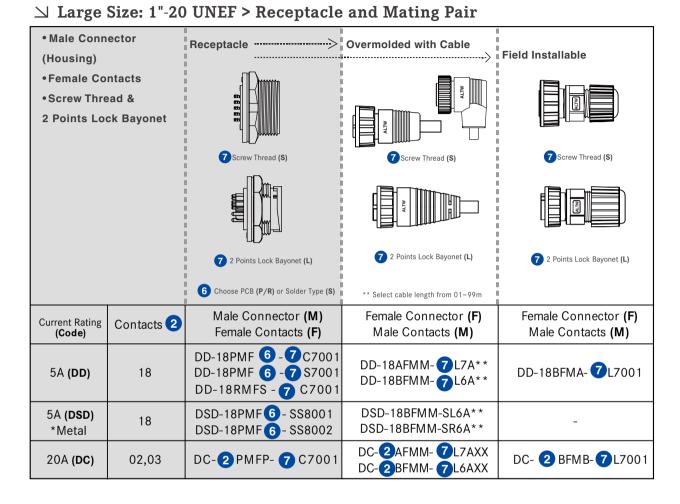


<sup>\*</sup> Design and specification are subject to change without notice.

Screw Thread & 2 Points Lock Bayonet

Unmated or Mated





Receptacle and Mating Pair Screw Thread & 2 Points Lock Bayonet

## □ Large Size: 1"-20UNEF> Receptacle and Mating Pair

Male Connector		Receptacle	>	Overmolded with Cable	Field Installable
(Housing) •Female Power+Male Signal				Y VIEW NOTES	
• 2 Points Lock Bayonet		PCB (P/R) Type	Solder Type (S)		
			B (P/R) or Solder Type (S)	** Select cable length from 01~99m	
Current Rating (Code)	Contacts	Male Connector (M) Female Power+Male Signal (D)		Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>	Female Connector <b>(F)</b> Male Power+Female Signal <b>(E)</b>
20A+2A ( <b>DCU</b> )	(3+5)	DCU-08P	MDS-LC7001	DCU-08AFEM-LL7B**	DCU-08BFEA-LL7001
20A+5A ( <b>DCD</b> )	(3+9)	DCD-12PM	D 6 -LC7001	DCD-12AFEM-LL7A** DCD-12AFEM-LR7A**	DCD-12BFEA-LL7001

## □ Large Size: 1"-20 UNEF > Receptacle and Mating Pair

<ul> <li>Male Connector</li> <li>(Housing)</li> <li>Male Power+Female Signal</li> <li>2 Points Lock Bayonet</li> </ul>			Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Male Power+Female Signal (E)	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>	Female Connector <b>(F)</b> Female Power+Male Signal <b>(D)</b>
20A+2A ( <b>DCU</b> )	(3+5)	DCU-08PMES-LC7001	DCU-08AFDM-LL7B**	DCU-08BFDA-LL7001
20A+5A <b>(DCD)</b>	(3+9)	DCD-12PMES-LC7001	DCD-12AFDM-LL7A** DCD-12AFDM-LR7A**	DCD-12BFDA-LL7001

## △ Macro Size: 1 3/16"-20 UNS > Receptacle and Mating pair

• Male Conn (Housing) • Female Con • 2 Points Lo	ntacts	Receptacle  6 Choose PCB (P) or Solder Type (S)	Overmolded with Cable  *** Select cable length from 01~99m	Field Installable
Current Rating (Code) Contacts		Male Connector (M) Female Contacts (F)	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>
5A <b>(ED)</b>	31	ED-31PMF 6 -LS7001	ED-31AFMM-LL7A**	-

<sup>\*</sup> Design and specification are subject to change without notice.

In-line 2 & 3 Points Lock Bayonet IP 66 ~ 68 9
Unmated or Mated

## □ Other Size > In-line

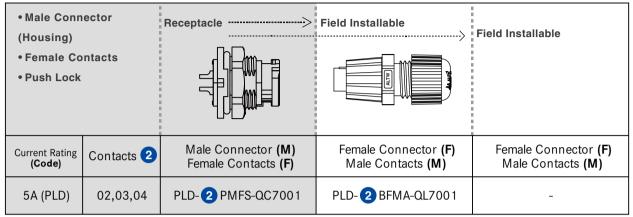
Male Connector     (Housing)		Receptacle	Overmolded with Cable	Field Installable
Female Power+Male Signal     3 Points Lock Bayonet		** Select cable length from 01~99m	** Select cable length from 01~99m	
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
5A (GBD)	08	GBD-08AMMM-TL8A** GBD-08BMMM-TL7A**	GBD-08AFFM-TL8A** GBD-08BFFM-TL7A**	-

## Other Size > In-line

Male Connector     (Housing)     Female Power+Male Signal     2 Points Lock Bayonet		Receptacle	Overmolded with Cable	Field Installable
		** Select cable length from 01~99m	** Select cable length from 01~99m	
Current Rating (Code)	Contacts	Male Connector (M) Female Contacts (F)	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>
10A (MAB)	04	MAB-04AMFM-LL7A** MAB-04BMFM-LL6A**	MAB-04AFMM-LL7A** MAB-04BFMM-LL6A**	-

Receptacle and Mating Pair I In-line Push Lock

## ○ Other Size > Receptacle and Mating Pair



#### Other Size > In-line

• Male Connector (Housing) • Female Contacts		Field Installable ······		Field Installable
Push Lock				
Current Rating (Code)	Contacts 2	Male Connector (M) Female Contacts (F)	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>
5A (PLD)	02,03,04	PLD- 2 BMFA-QL7001	PLD- 2 BFMA-QL7001	-

<sup>\*</sup> Design and specification are subject to change without notice.

# **Power Connector**



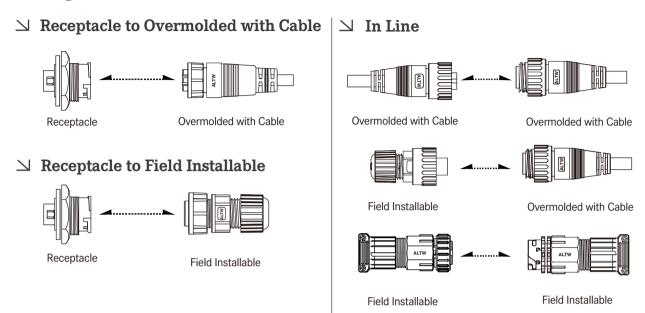




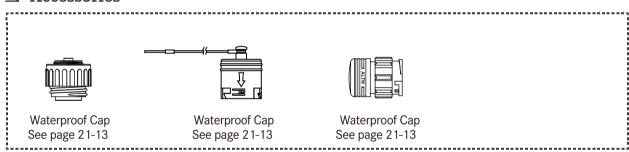




# **Range Overview**



#### □ Accessories

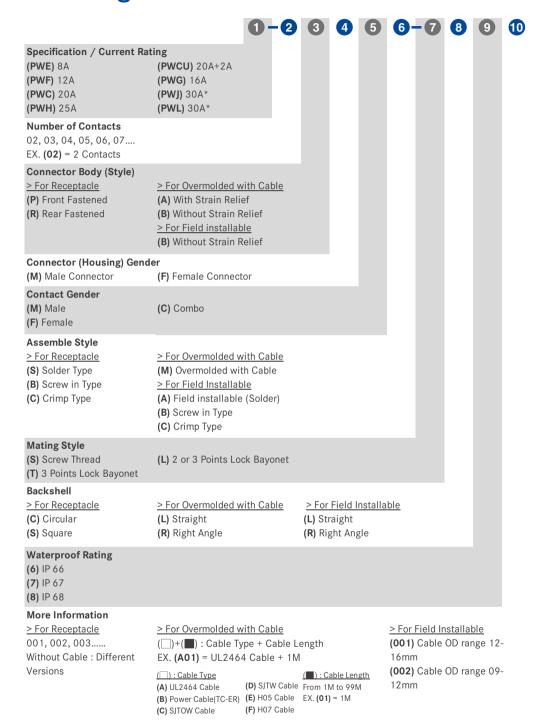


<sup>\*</sup> Design and specification are subject to change without notice.

# **Specification**

Identifications	Power Connector
Description	Receptacle Overmolded with Cable Field Installable
Current Rating / Data	8A, 12A, 16A, 20A, 25A, 30A, 10A+2A, 20A+2A
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): Nylon+GF, UL Recognized, PPE
Waterproof Rating	IP66~68
Temperature Range	Receptacle : $-40^{\circ}$ C ~ $+105^{\circ}$ C Overmolded with Cable : $-20^{\circ}$ C ~ $+80^{\circ}$ C Field Installable : $-40^{\circ}$ C~105 $^{\circ}$ C
Contact Resistance	$\leq 5 \text{m}\Omega$
Insulation Resistance	$\geq 100 M\Omega$ at DC500V
Durability	500 cycles
Breakdown Voltage	≥ AC1000V / 1 minute
More to know	Standard Cable Length: 01~99M

## **Ordering Information**



<sup>\* 30</sup>A (PWJ) Recommended For Inverter Application

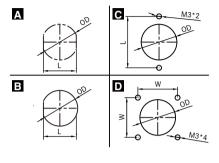
<sup>\* 30</sup>A (PWL) Recommended For LED Application

<sup>\*</sup> Design and specification are subject to change without notice.

# **Physical Dimension**

## **△** Receptacle Cut-Out

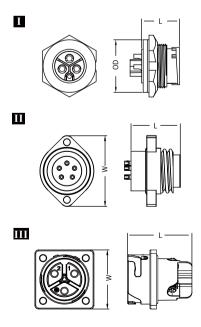
Panel Cut-Out



Connector(Housing) Gender Current Rating	_	L/W	OD	L/W	OD	
Connector Gender	Туре	Ma	Male		Female	
8A <b>(PWE)</b>	С	31.1	21.55	31.1	21.55	
12A <b>(PWF)</b>	С	31.1	21.55	31.1	21.55	
16A <b>(PWG)</b>	С	31.1	21.60	31.1	21.60	
20A <b>(PWC)</b>	В	19.4	20.80	-	-	
054 (8)4(1)	В	30.2	32.00	-	-	
25A <b>(PWH)</b>	А	23.2	25.20	-	-	
20A+2A <b>(PWCU)</b>	В	19.4	20.80	-	-	
30A <b>(PWL)</b>	D	23.0	23.00	-	-	
30A <b>(PWJ)</b>	А	23.2	25.20	_	-	

Dimensions are shown in millimeters

#### **Connector Dimension**

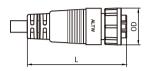


Connector(Housing) Gender Current Rating	Туре	L		OD / W		Recommend Panel Thickness
Connector Gender		Female	Male	Female	Male	Female & Male
8A <b>(PWE)</b>	II	27.50	26.50	38.00	38.00	-
12A <b>(PWF)</b>	II	27.50	26.50	38.00	38.00	-
16A <b>(PWG)</b>	II	32.40	31.00	38.00	38.00	-
20A <b>(PWC)</b>	I	-	18.00	-	25.00	4.5 mm Max.
25 A (DWII)	ī	-	55.00	-	40.00	5.0 mm Max
25A <b>(PWH)</b>	I	-	47.00	-	35.00	0.5~8 mm
20A+2A <b>(PWCU)</b>	I	-	18.00	-	25.00	4.5 mm Max.
30A <b>(PWL)</b>	III	-	34.60	-	31.80	-
30A <b>(PWJ)</b>	I	-	47.00	-	35.00	0.5~8 mm

Dimensions are shown in millimeters

## Receptacle I Overmolded with Cable I Field Installable

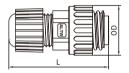
## □ Overmolded with Cable



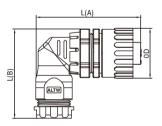
Connector(Housing) Gender	L	L		)
Current Ranting	Female	Male	Female	Male
8A <b>(PWE)</b>	70.3	72.0	30.2	30.2
12A <b>(PWF)</b>	70.3	72.0	30.2	30.2
20A <b>(PWC)</b>	60.0	65.5	22.2 (L) 23.0 (T)	18.0
25A <b>(PWH)</b>	91.55	100.4	40.0	31.75
20A+2A (PWCU)	60.0	65.5	22.2	18.0

\* (L) 2 Points Lock Bayonet | (T) 3 Points Lock Bayonet

## **∠** Field Installable



(See 3rd top-right hand chart)



(See bottom right hand chart)

Connector(Housing)	L	-	10	)
Gender Current Ranting	Female	Male	Female	Male
8A <b>(PWE)</b>	60.7	60.4	30.2	30.2
12A <b>(PWF)</b>	60.7	60.4	30.2	30.2
16A <b>(PWG)</b>	67.0	67.0	30.2	30.2
20A <b>(PWC)</b>	48.15	-	22.2	-
20A+2A ( <b>PWCU</b> )	88.4	91.0	33.0	26.9
20A12A (FWCO)	48.15	-	22.2	-
25A <b>(PWH)</b>	87.4	84.1	38.0	38.0
30A (PWL)	92.14	-	35.2	-
30A (PWJ)	87.4	84.1	38.0	38.0

Connector(Housing) Gender	L [A]	L [B]	OD
Current Ranting	Female / Male	Female / Male	Female / Male
16A <b>(PWG)</b>	62.0	54.0	30.2

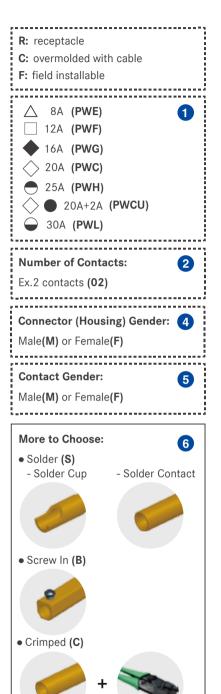
Dimensions are shown in millimeters

<sup>\*</sup> Design and specification are subject to change without notice.

# **Contact Configuration**

	8 <b>(PV</b>	A VE)	12 <b>(PV</b>	2A <b>VF)</b>		6A <b>VG)</b>	20 <b>(PV</b>	OA VC)
45	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM
2Contacts (02)			R C F					
3Contacts (03)			R C F				R C	R C
4Contacts (04)			R C F		( )   F			
5Contacts (05)	A A A A A B C F							
6Contacts (06)	$ \begin{pmatrix} \Delta & \Delta \\ \Delta & \Delta \end{pmatrix} $ R   C   F							
7Contacts (07)	$ \begin{pmatrix} \Delta & \Delta \\ \Delta & \Delta & \Delta \\ \Delta & \Delta \end{pmatrix} $ R C F							
12Contacts (12)								

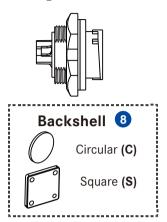
25 (PW	5A <b>/H)</b>		x+2A <b>/CU)</b>	30 ( <b>PWL</b> ),	A /(PWJ)
MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM
R C				R F	R F
		R C F	R C F		
( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	R   F				
		(\$\displays{0}\din			

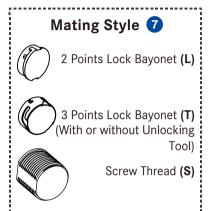


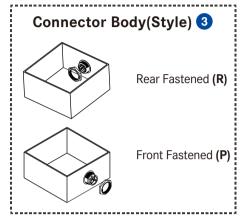
<sup>\*</sup> Design and specification are subject to change without notice.

## **Product Features**

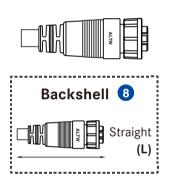
#### **∠** Receptacle



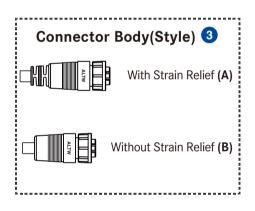




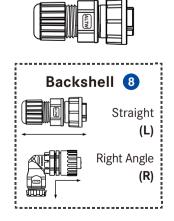
#### □ Overmolded with Cable

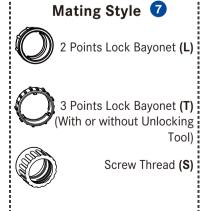


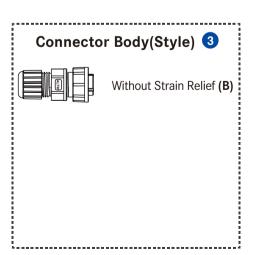




#### **∠** Field Installable







## **Find Our Standard Products**

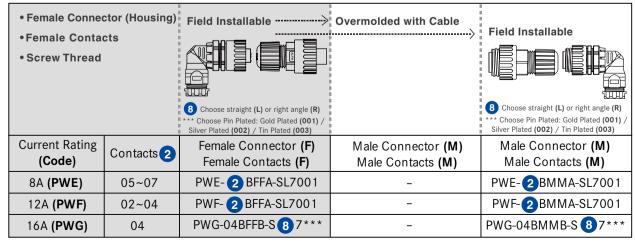
#### ☑ In-line

Male Connec     Male Contact	( 0,	Overmolded with Cable>	Overmolded with Cable	Field Installable
Screw Thread	d			
		** Selecting the proper cable length from 1~99m for your connector	** Selecting the proper cable length from 1~99m for your connector	
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
8A <b>(PWE)</b>	05,06,07	PWE- 2 AMMM-SL7A**	PWE- 2 AFFM-SL7A**	PWE- 2 BFFA-SL7001
12A <b>(PWF)</b>	02,03,04	PWF- 2 AMMM-SL7A**	PWF- 2 AFFM-SL7A**	PWF- 2 BFFA-SL7001
25A <b>(PWH)</b>	03	PWH-03AMMM-SL7A**	PWH-03AFFM-SL7A**	-

#### ☑ In-line

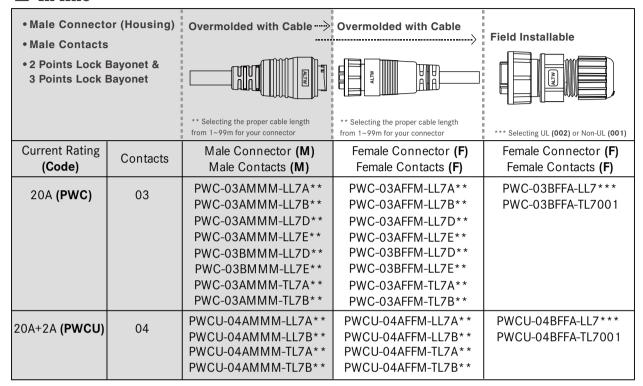
• Female Conne	` j	Overmolded with Cable>	Overmolded with Cable	Field Installable
Screw Thread				
		** Selecting the proper cable length from 1~99m for your connector	** Selecting the proper cable length from 1~99m for your connector	
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector (M) Male Contacts (M)	Male Connector (M) Male Contacts (M)
8A <b>(PWE)</b>	05,06,07	PWE- 2 AFFM-SL7A**	PWE- 2 AMMM-SL7A**	PWE- 2 BMMA-SL7001
12A <b>(PWF)</b>	02,03,04	PWF- 2 AFFM-SL7A**	PWF- 2 AMMM-SL7A**	PWF- 2 BMMA-SL7001
25A <b>(PWH)</b>	03	PWH-03AFFM-SL7A**	PWH-03AMMM-SL7A**	-

#### ☑ In-line

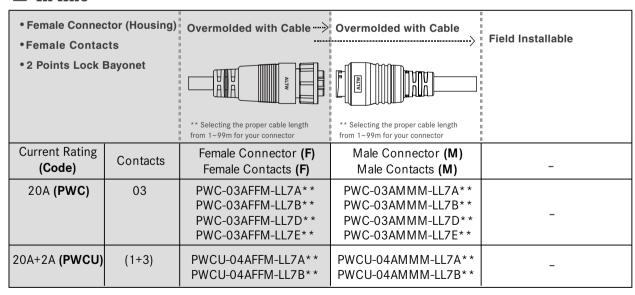


<sup>\*</sup> Design and specification are subject to change without notice.

#### ∨ In-line



#### 



## ☑ In-line

• Female Connect • Female Contact • 3 Points Lock E	ets	Field Installable ALTW	Overmolded with Cable	Field Installable
Current Rating (Code)	Contacts	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector (M) Male Contacts (M)	Male Connector (M) Male Contacts (M)
20A+2A <b>(PWCU)</b>	(6+6)	PWCU-12BFFA-TL7001	-	PWCU-12BMMA-TL7001

## ☑ In-line

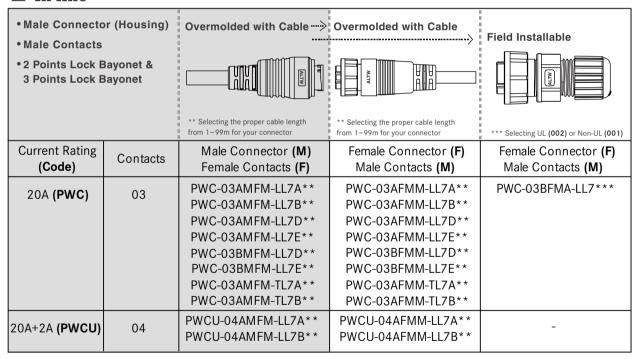
Male Connects     Male Contacts	`	Field Installable	Overmolded with Cable	Field Installable
• 3 Points Lock I • Unlock Tool Ne (Part Number: AN	eded	***Selecting the cable OD range 12~16mm (001) or OD 09~12mm (002)		***Selecting the cable OD range12~16mm (001) or OD 09~12mm (002)
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>
25A <b>(PWH)</b>	05	PWH-05BMMC-LL8***	-	PWH-05BFFC-LL8***
30A <b>(PWJ)</b>	03	PWJ-03BMMB-LL8***	-	PWJ-03BFFB-LL8***

<sup>\*</sup> Design and specification are subject to change without notice.

#### 

Male Connecto     Female Contact	`	Field Installable	Overmolded with Cable	Field Installable
• 3 Points Lock Bayonet • Unlock Tool Needed (Part Number: ANB00010649)				
		***Selecting the cable OD range 12~16mm (001) or OD 09~12mm (002)		***Selecting the cable OD range 12~16mm (001) or OD 09~12mm (002)
Current Rating (Code)	Contacts	Male Connector <b>(M)</b> Female Contacts <b>(F)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>	Female Connector <b>(F)</b> Male Contacts <b>(M)</b>
25A <b>(PWH)</b>	05	PWH-05BMFC-LL8***	-	PWH-05BFMC-LL8***
30A <b>(PWJ)</b>	03	PWJ-03BMFB-LL8***	-	PWJ-03BFMB-LL8***

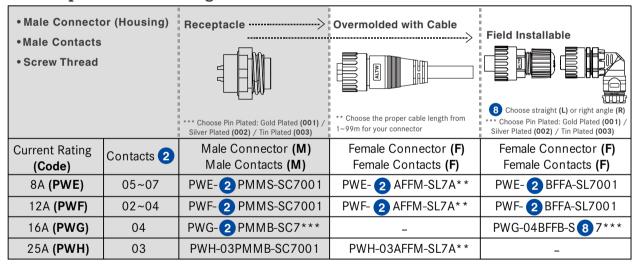
#### **∨** In-line



#### □ Receptacle and Mating Pair

• Female Contac • Female Contac • Screw Thread	-	Receptacle	Overmolded with Cable	Field Installable
		*** Choose Pin Plated: Gold Plated (001) / Silver Plated (002) / Tin Plated (003)	** Choose the proper cable length from 1~99m for your connector	8 Choose straight (L) or right angle (R)  *** Choose Pin Plated: Gold Plated (001) / Silver Plated (002) / Tin Plated (003)
Current Rating (Code)	Contacts 2	Female Connector <b>(F)</b> Female Contacts <b>(F)</b>	Male Connector (M) Male Contacts (M)	Male Connector (M) Male Contacts (M)
8A <b>(PWE)</b>	05~07	PWE- 2 PFFS-SC7001	PWE- 2 AMMM-SL7A**	PWE-2BMMA-SL7001
12A <b>(PWF)</b>	02~04	PWF- 2 PFFS-SC7001	PWF- 2 AMMM-SL7A**	PWF-2BMMA-SL7001
16A <b>(PWG)</b>	04	PWG-04PFFB-SC7***	-	PWG-04BMMB-S 8 7***

## □ Receptacle and Mating Pair



<sup>\*</sup> Design and specification are subject to change without notice.

## ightharpoonup Receptacle and Mating Pair

Male Connecto     Male Contacts	r (Housing)	Receptacle	Overmolded with Cable	Field Installable
• 2 Points Lock Bayonet				
			** Selecting the proper cable length from 1~99m for your connector	*** Selecting UL (002) or Non-UL (001)
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector (F) Female Contacts (F)	Female Connector (F) Female Contacts (F)
20A (PWC)	03	PWC-03PMMS-LC7001 (UL) PWC-03RMMS-LC7001 (Non UL) PWC-03RMMS-LC7002 (UL)	PWC-03AFFM-LL7A** PWC-03AFFM-LL7B** PWC-03AFFM-LL7D** PWC-03AFFM-LL7E** PWC-03BFFM-LL7D**	PWC-03BFFA-LL7***
20A+2A (PWCU)	(3+1)	PWCU-04RMMS-LC7001 (Non UL) PWCU-04RMMS-LC7002 (UL)	PWCU-04AFFM-LL7A** PWCU-04AFFM-LL7B**	-

## □ Receptacle and Mating Pair

Male Connector (Housing)     Male Contacts     3 Points Lock Bayonet		Receptacle	Overmolded with Cable	Field Installable
		<b>""</b> (_]]/-a	** Cable length from 1~99m for your connector	***Selecting UL(002) or Non-UL (001)
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector (F) Female Contacts (F)	Female Connector (F) Female Contacts (F)
20A (PWC)	03	PWC-03RMMS-TC7001	PWC-03AFFM-TL7A** PWC-03AFFM-TL7B**	-
30A (PWL)	03	PWL-03PMMB-TS7001	-	PWL-03BFFA-TL7***

## □ Receptacle and Mating Pair

<ul> <li>Male Connector (Housing)</li> <li>Male Contacts</li> <li>3 Points Lock Bayonet</li> <li>PWH For Inverter Application</li> <li>Unlock Tool Needed (Part Number: ANB00010649)</li> </ul>		Receptacle	Overmolded with Cable	Field Installable  UL 6703A Certification (E-Number 346280)  ***Selecting the cable OD range 12~16mm (001) or OD 09~12mm (002)
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector (F) Female Contacts (F)	Female Connector (F) Female Contacts (F)
25A (PWH)	05	PWH-05PMMC-LC8001	-	PWH-05BFFC-LL8***
30A (PWJ)	03	PWJ-03PMMB-LC8001	-	PWJ-03BFFB-LL8***

<sup>\*</sup> Design and specification are subject to change without notice.

## □ Receptacle and Mating Pair

Male Connector (Housing)     Female Contacts     2 Points Lock Bayonet &     3 Points Lock Bayonet		Receptacle	Overmolded with Cable	Field Installable
		***Selecting UL (002) or Non-UL (001)	** Cable length from 1~99m for your connector	***Selecting UL(002) or Non-UL (001)
Current Rating (Code)	Contacts	Male Connector (M) Feale Contacts (F)	Female Connector (M) Male Contacts (F)	Female Connector (M) Male Contacts (F)
20A (PWC)	03	PWC-03PMFS-LC7001 PWC-03RMFS-LC7*** PWC-03RMFS-TC7001	PWC-03AFMM-LL7A** PWC-03AFMM-LL7B** PWC-03AFMM-LL7D** PWC-03AFMM-LL7E** PWC-03AFMM-TL7A** PWC-03AFMM-TL7B**	PWC-03BFMA-LL7*** PWC-03BFMA-TL7001
20A+2A (PWCU)	(3+1)	PWCU-04RMFS-LC7***	PWCU-04AFMM-LL7A** PWCU-04AFMM-LL7B**	PWCU-04BFMA-LL7002

## □ Receptacle and Mating Pair

Male Connector (Housing)     Female Contacts     3 Points Lock Bayonet		Receptacle		Field Installable  ALTW UL(001)  UL(002)  ***Selecting UL(002) or Non-UL (001)
Current Rating (Code)	Contacts	Male Connector (M) Feale Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
30A (PWL)	03	PWL-03PMFB-TS7001	-	PWL-03BFMA-TL7***

Male Connector (Housing)		Receptacle	Overmolded with Cable	Field Installable
• Female Contacts • 3 Points Lock Bayonet			,	
PWJ & PWH For Inverter     Application				
Unlock Tool Needed (Part Number: ANB00010649)				UL 6703A Certification (E-Number 346280)  ***Selecting the cable OD range 12~16mm  (001) or OD 09~12mm (002)
Current Rating (Code)	Contacts	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
25A (PWH)	05	PWH-05PMFC-LC8001	-	PWH-05BFMC-LL8***
30A (PWJ)	03	PWJ-03PMFB-LC8001	-	PWJ-03BFMB-LL8***

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	Scan to visit our website

Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

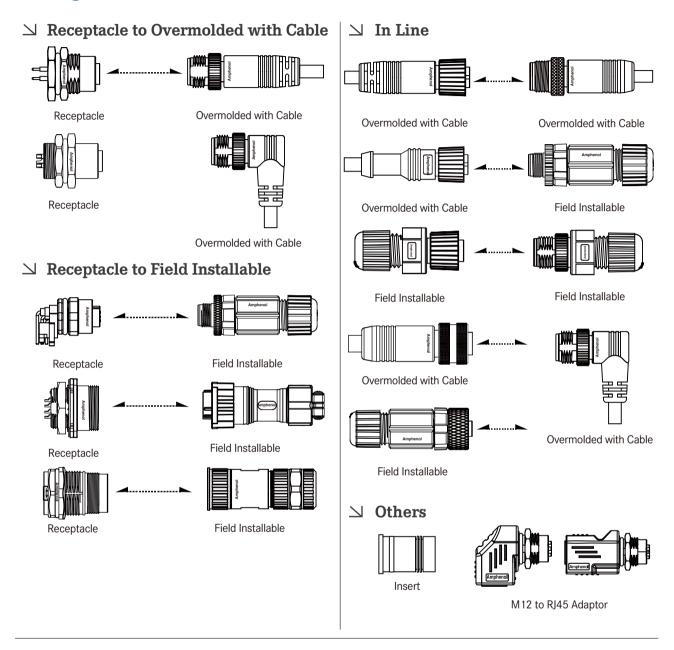
# **M Series Sensor Connector**



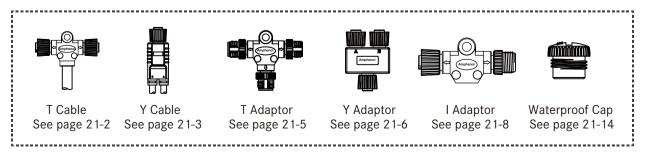




# **Range Overview**



#### □ Accessories



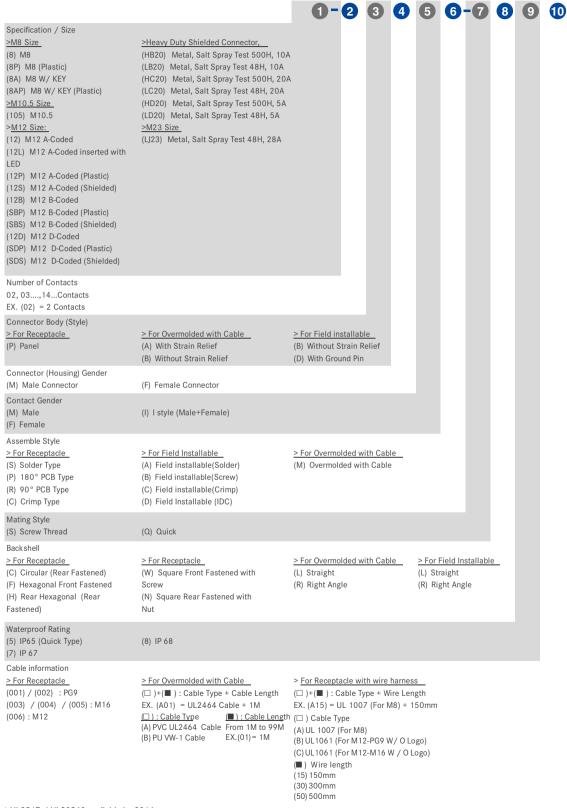
Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

# **Specification**

Identifications	M8, M10.5, M12 (A, B, D code), Heavy Duty Shielded Connector, M23	
Description	Receptacle Overmolded with Cable Field Installable	
Current Rating / Data	1.5A~28A	
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): Nylon+GF or PU, UL Recognized Metal Screw Nut: Zinc Alloy or Copper Ally, Nickel Plated	
Waterproof Rating	IP65, IP67~68	
Temperature Range	Receptacle: -40°C~105°C  Overmolded with Cable: PVC Cable: -20°C~80°C  PU Cable: -20°C~85°C  Field Installable: -40°C~105°C  * Higher working temperature upon request.	
Contact Resistance	≤ 10mΩ	
Standard Cable Length	01~99M	
Mating Cycle	100*Minimum	
Vibration	10 ~ 500 Hz and 0.35 mm	
Standards	IEC 61076-2-101 IEC 61076-2-104	

<sup>\*</sup> Design and specification are subject to change without notice.

## **Ordering Information**



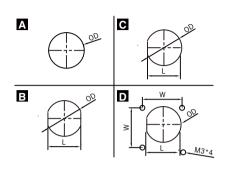
<sup>\*</sup> UL2517 / UL20549 available by 2014

Overmolded with Cable I Mated
Field Installable I Mated

## **Physical Dimension**

### **∠** Receptacle

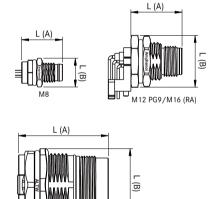
Panel Cut-Out



Size	Dimension	Туре	L/W	OD	Туре	L/W	OD
Size	Thread Description		Female			Male	
M105	M10.5 X 0.75	-	-	-	Α	-	10.9
M8	M8 X 1.0	В	7.1	8.1	В	7.1	8.1
IVIO	W8 X 1.0	-	-	-	Α	-	8.1
	M12 X 1.0 - PG9	В	13.6	15.4	В	13.6	15.4
M12	M12 X 1.0 - M16.0 X 1.5	В	13.6	16.1	В	13.6	16.1
	M12.0 X 1.0	В	10.5	12.2	В	10.5	12.2
HDSC*	M22 X 1.0	-	-	-	С	19.2	20.2
HD3C	WIZZ X 1.U	-	-	-	D	19.2 / 23.0	20.2
M23	M23 X 1.0	-	-	-	С	24.4	25.1

<sup>\*</sup>HDSC: Heavy Duty Shielded Connector

#### **Connector Dimension**

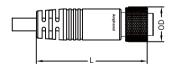


	Series		Rec	eptacle	!	Panel Thickness			
Conn. Gender		Type	Female		Male		Failer Hillokiless		
Coll	ii. Gerider	туре	L (A)	L (B)	L (A)	L (B)	Front Fastened	Rear Fastened	
	M8	Straight	18.0	13.8	16.4	11.5	3.0 mm Max.	3.5 mm Max.	
	M 105	Straight	1	-	18.0	15.0	-	6.0 mm Max.	
	PG9/M16	Straight	20.0	20.8	20.5	20.8	4.5mm Max.	4.5mm Max.	
M12	FG9/ WITO	Right Angle	20.0	20.8	20.5	20.8	4.0mm Max.(Plastic)	4.JIIIII Wax.	
	M12*1.0	Right Angle	16.9	15.0	16.2	15.0	3.0mm	Max.	
	HDSC*	Straight	-	-	23.5	29.0	9.0mm Min.	5.0 mm Max.	
	M23	Straight	-	-	36.0	29.0	6.0 mm Max.	-	

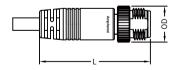
<sup>\*</sup>HDSC: Heavy Duty Shielded Connector

#### □ Overmolded with Cable

M23



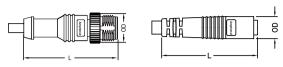
Size	Dimension	L	OD
Size	Thread Description	Fer	nale
M105	M10.5 X 0.75	36.5	8.4



Size	Dimension	L		OD	
Size	Thread Description	Female	Male	Female	Male
M105	M10.5 X 0.75	41.5	1	12.0	-
M8	M8 X 1.0	38.1	42.7	10.1	10.5
M12	M12.0 X 1.0	43.3	44.4	14.5	14.4

Dimensions are shown in millimeters

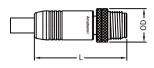
### Receptacle I Overmolded with Cable I Field Installable



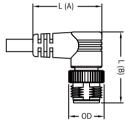


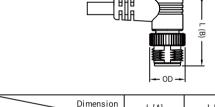
\* Snap-In type

Size	Dimension	L	-	OD		
Size	Туре	Female	Male	Female	Male	
M8	Screw Thread M8 X 1.0	36.0	40.5	10.1	10.5	
M8	Snap-In M8 X 1.0	36.5	1	8.4	ı	
M105	Screw Thread M10.5 X 0.75	37.2	1	12.0	1	
M12	Screw Thread M12.0 X 1.0	43.3	44.4	14.5	14.4	

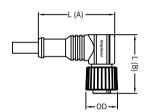


Size	Dimension	L	-	OD		
Size	Thread Description	Female	Male	Female	Male	
M12	M12.0 X 1.0	39.2	40.1	14.5	14.5	



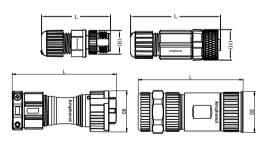


Size	Dimension	L [A]		L [B}		0	D
Size	Thread Description	Female	Male	Female	Male	Female	Male
M105	M10.5 X 0.75	24.0	-	24.0	-	12.0	-
M8	M8 X 1.0	20.7	20.7	20.0	25.5	10.1	10.5
M12	M12.0 X 1.0	28.0	28.0	27.9	28.9	14.5	14.4

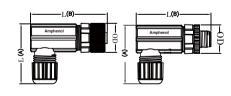


Size	Dimension	L [A]		L	[B}	OD	
Size	Thread Description	Female	Male	Female	Male	Female	Male
M105	M10.5 X 0.75	19.0	-	24.0	ı	12.0	-
М8	M8 X 1.0	25.0	25.0	21.0	25.6	10.1	10.5
M12	M12.0 X 1.0	35.0	35.0	26.9	27.9	14.5	14.4

#### **∠** Field Installable



Size		Pin Type	L	-	OD		
Size	Туре		Female	Male	Female	Male	
M8	M8 X 1.0	Screw In	55.4	59.1	16.7	16.7	
	M40 0 V 4 0	Solder	40.5	41.8	14.5	14.4	
M12	M12.0 X 1.0	Screw In	61.3	61.3	20.8	20.8	
M12	M10.0 V 1.0	Solder	40.5	41.8	14.8	13.8	
Plastic	M12.0 X 1.0	Screw In	61.3	61.3	20.8	20.4	
HDSC*	M22 X 1.0		72.5	-	27.7	-	
M23	M23 X 1.0		73.0	-	28.5	-	



l	Size		Pin Type	L [A]		L [B]		OD	
l	Size	Thread Description		Female	Male	Female	Male	Female	Male
	M12	M12.0 X 1.0	Screw In	38.9	38.9	52.3	52.3	20.8	20.8
l	M12 Plastic		ociew iii	38.9	38.9	52.3	52.3	20.8	20.8

Dimensions are shown in millimeters

<sup>\*</sup>HDSC: Heavy Duty Shielded Connector

<sup>\*</sup> Design and specification are subject to change without notice.

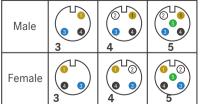
Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

## **Contact Configuration**

		M8		M105	M12 A	Code	M12 B	Code	M12 D	Code	M12 I	Style
	(1.5A)	,	A)	, ,	(3~5P: 4 <i>A</i>	-	(4)	•	(4	·	(4)	•
4 5	MM or FF	MM or FF	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MMF or FFM	MF or FM
2Pin ( <b>02</b> )		R C F		R C								
3Pin ( <b>03</b> )		R C F	R C F	R C	R C F		R F		R F			
4Pin ( <b>04</b> )		R C F	R C F	R C	R C F		R C F		R C F			
5Pin ( <b>05</b> )	R C F			R C	R C F		R C F		R C F		R C F	
6Pin ( <b>06</b> )	R C F											
7Pin ( <b>07</b> )												
8Pin ( <b>08</b> )					R C F							
10Pin (10)												
12Pin (12)												
14Pin ( <b>14</b> )												

#### More to know:

No. of Poles & Contact Configuration (Connection side view)



Male 8

Color Identification:

1 = Brown, 2 = White, 3 = Blue, 4 = Black, 5 = Green

Color Identification:

1 = White, 2 = Brown, 3 = Green, 4 = Yellow, 5 = Gray, 6 = Pink, 7 = Blue, 8 = Red

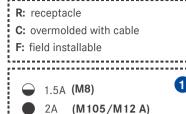
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HD (5	SC* A)	HD (10	SC* DA)		SC* DA)	M2 (28	
MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM	MM or FF	MF or FM
					$(\diamond \diamond)$		
					R F		
					( , )		
					R F		
			R F				
			RIF				
			K I IF			(9.9)	
						000	000
						R F	R F
			R F				
	RF						
	R F						
	RF						
*!!000 !!	·	ded Connecti		•	•		

\*HDSC: Heavy Duty Shielded Connector

M12 Panel Version	Screw Thread Size	Logo
001	M12XPG9	With Logo
002	M12XPG9	Without Logo
003	M12XM16.0X1.5	With Logo
004	M12XM16.0X1.5	Without Logo
005	M12XM16.0X1.5	Without Logo
006	M12X1.0	With Logo
007	M12X1.0	Without Logo

<sup>\*</sup> Design and specification are subject to change without notice.



(M8) 3A (M12 A/M12 B/M12 D/ M12 I Style)

10A (HDSC\*) 20A (HDSC\*)

28A (M23)

**Contact Number:** 

2

Ex.2 contacts (02)

Connector (Housing) Gender: 4

Male(M) or Female(F)

**Contact Gender:** 

Male(M) or Female(F) Male + Female (I)

5

6

More to Choose: • Solder (S)



 PCB Type - 90° PCB (R)

- 180° PCB (P)





More to know:

A-Code B-Code D-Code I-Style







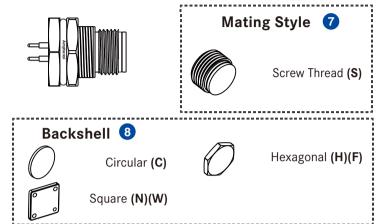


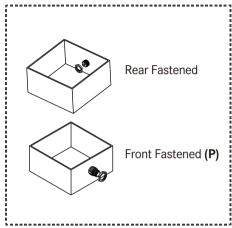
IP 65 . 67 . 68 •

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

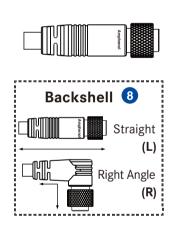
### **Product Features**

#### **∠** Receptacle

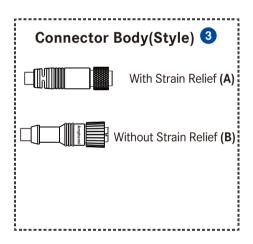




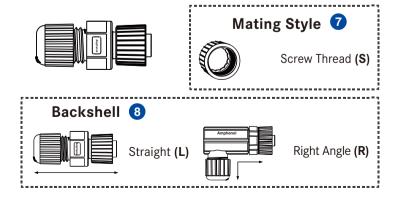
#### □ Overmolded with Cable

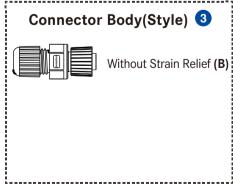






#### **∠** Field Installable





### **Find Our Standard Products**

### ∠ M8 (Metal) > Receptacle > Male Connector > Front Fastened

> IEC 61076-2-104						
Backshell: Hexagonal			000			
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
PCB Pin	-	8-03PMMP-SF7001	8-04PMMP-SF7001	-	-	
Solder Pin	-	8-03PMMS-SF7001	8-04PMMS-SF7001	-	-	
Wire Leads (150mm)	-	8-03PMMS-SF715	8-04PMMS-SF715	-	-	
Wire Leads (300mm)	-	8-03PMMS-SF730	8-04PMMS-SF730	-	-	
Wire Leads (500mm)	-	8-03PMMS-SF750	8-04PMMS-SF750	-	-	
> with alignment Key	•		•			
Backshell: Hexagonal						
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
PCB Pin	8A-02PMMP-SF7001	8A-03PMMP-SF7001	8A-04PMMP-SF7001	8A-05PMMP-SF7001	8A-06PMMP-SF7001	
Solder Pin	8A-02PMMS-SF7001	8A-03PMMS-SF7001	8A-04PMMS-SF7001	8A-05PMMS-SF7001	8A-06PMMS-SF7001	

### ∠ M8 (Metal) > Receptacle > Male Connector > Rear Fastened

> IEC 61076-2-104					
Backshell: Hexagonal			000		
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
PCB Pin	-	8-03PMMP-SH7001	8-04PMMP-SH7001	-	=
Solder Pin	-	8-03PMMS-SH7001	8-04PMMS-SH7001	-	-
Wire Leads (150mm)	-	8-03PMMS-SH715	8-04PMMS-SH715	-	-
Wire Leads (300mm)	-	8-03PMMS-SH730	8-04PMMS-SH730	-	-
Wire Leads (500mm)	-	8-03PMMS-SH750	8-04PMMS-SH750	-	-
> with alignment Key					
Backshell: Hexagonal					
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
Solder Pin	8A-02PMMS-SH7001	8A-03PMMS-SH7001	8A-04PMMS-SH7001	8A-05PMMS-SH7002	8A-06PMMS-SH7002

<sup>\*</sup> Design and specification are subject to change without notice.

## M Series Sensor Connector I Find Our Standard Products M8 (Metal)

Receptacle > Female Connector Overmolded with Cable > Male Connector IP 65 . 67 9

Receptacle I Unmated
Overmolded with Cable I Mated

Field Installable I Mated

### ∠ M8 (Metal) Receptacle > Female Connector > Rear Fastened

> IEC 61076-2-104	> IEC 61076-2-104							
		000	000					
Backshell: Hexagonal								
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts			
Solder Pin	-	8-03PFFS-SH7001	8-04PFFS-SH7001	-	-			
Wire Leads (150mm)	-	8-03PFFS-SH715	8-04PFFS-SH715	-	-			
Wire Leads (300mm)	-	8-03PFFS-SH730	8-04PFFS-SH730	-	-			
Wire Leads (500mm)	-	8-03PFFS-SH750	8-04PFFS-SH750	-	-			
> with alignment Key		•		•				
Backshell: Hexagonal								
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts			
Solder Pin	8A-02PFFS-SH7001	8A-03PFFS-SH7001	8A-04PFFS-SH7001	8A-05PFFS-SH7002	8A-06PFFS-SH7002			

### ∠ M8 (Metal) > Overmolded with cable > Male Connector > Right Angle

> IEC 61076-2-104	> IEC 61076-2-104						
			000				
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts		
With Strain Relief	-	8-03AMMM-SR7	8-04AMMM-SR7	-	-		
Without Strain Relief	-	8-03BMMM-SR7	8-04BMMM-SR7	-	-		
> with alignment Key				•			
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts		
With Strain Relief	8A-02AMMM-SR7	8A-03AMMM-SR7	8A-04AMMM-SR7	8A-05AMMM-SR7	8A-06AMMM-SR7		

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

### 

> IEC 61076-2-104						
		000				
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
With Strain Relief	-	8-03AMMM-SL7	8-04AMMM-SL7	-	-	
Without Strain Relief	-	8-03BMMM-SL7	8-04BMMM-SL7	-	-	
> with alignment Key					•	
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
With Strain Relief	8A-02AMMM-SL7	8A-03AMMM-SL7	8A-04AMMM-SL7	8A-05AMMM-SL7	8A-06AMMM-SL7	

> IEC 61076-2-104					
			000		
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	-	8-03AFFM-SR7	8-04AFFM-SR7	-	-
Without Strain Relief	-	8-03BFFM-SR7	8-04BFFM-SR7	-	-
> with alignment Key					
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	8A-02AFFM-SR7	8A-03AFFM-SR7	8A-04AFFM-SR7	8A-05AFFM-SR7	8A-06AFFM-SR7

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

<sup>\*</sup> Design and specification are subject to change without notice.

# M Series Sensor Connector I Find Our Standard Products M8 (Metal)

Overmolded with Cable > Female Connector

IP 67 . 68 9

Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

### ∠ M8 (Metal) > Overmolded with cable > Female Connector > Straight

> IEC 61076-2-104						
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
With Strain Relief	-	8-03AFFM-SL7	8-04AFFM-SL7	-	-	
Without Strain Relief	-	8-03BFFM-SL7	8-04BFFM-SL7	-	-	
> with alignment Key						
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
With Strain Relief	8A-02AFFM-SL7	8A-03AFFM-SL7	8A-04AFFM-SL7	8A-05AFFM-SL7	8A-06AFFM-SL7	

Cable Type	1M	3M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

Receptacle > Male Connector Overmolded with Cable > Male Connector

### ∠ M8 (Plastic) > Receptacle > Male Connector > Front Fastened

> IEC 61076-2-104						
Backshell: Hexagonal						
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
PCB Pin	-	8P-03PMMP-SF7001	8P-04PMMP-SF7001	-	-	
Solder Pin	-	8P-03PMMS-SF7001	8P-04PMMS-SF7001	-	-	
> with alignment Key	,					
Backshell: Hexagonal						
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts	
PCB Pin	8AP-02PMMP-SF7001	8AP-03PMMP-SF7001	8AP-04PMMP-SF7001	8AP-05PMMP-SF7001	8AP-06PMMP-SF7001	
Solder Pin	8AP-02PMMS-SF7001	8AP-03PMMS-SF7001	8AP-04PMMS-SF7001	8AP-05PMMS-SF7001	8AP-06PMMS-SF7001	

> IEC 61076-2-104					
			000		
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	-	8P-03AMMM-SR7	8P-04AMMM-SR7	-	-
Without Strain Relief	-	8P-03BMMM-SR7	8P-04BMMM-SR7	-	-
> with alignment Key					
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	8AP-02AMMM-SR7	8AP-03AMMM-SR7	8AP-04AMMM-SR7	8AP-05AMMM-SR7	8AP-06AMMM-SR7

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

<sup>\*</sup> Design and specification are subject to change without notice.

Overmolded with Cable > Male / Female Connector

IP 67.68 9

Receptacle I Unmated

Overmolded with Cable I Mated

Field Installable I Mated

### 

> IEC 61076-2-104					
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	-	8P-03AMMM-SL7	8P-04AMMM-SL7	-	-
Without Strain Relief	-	8P-03BMMM-SL7	8P-04BMMM-SL7	-	-
> with alignment Key		•		•	
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	8AP-02AMMM-SL7	8AP-03AMMM-SL7	8AP-04AMMM-SL7	8AP-05AMMM-SL7	8AP-06AMMM-SL7

### ☑ M8 (Plastic) > Overmolded with cable > Female Connector > Right Angle

> IEC 61076-2-104					
			000		
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	-	8P-03AFFM-SR7	8P-04AFFM-SR7	-	-
Without Strain Relief	-	8P-03BFFM-SR7	8P-04BFFM-SR7	-	-
> with alignment Key	•	•	•	•	
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Relief	8AP-02AFFM-SR7	8AP-03AFFM-SR7	8AP-04AFFM-SR7	8AP-05AFFM-SR7	8AP-06AFFM-SR7

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

### 

> IEC 61076	5-2-104								
Ту	ре		2 C	ontacts		3 Contacts	4 Contacts	5 Contacts	6 Contacts
With Strain Re	lief			-		8P-03AFFM-SL7	8P-04AFFM-SL7	-	-
Without Strain	Relief		- 8P-03BFFM-SL7 8P-04BFFM-SL7 -						
	* Mating style (Quick) also avaliable for 3 & 4 contacts								
> with alignmer	nt Key								
Ту	ре	e 2 Contacts			3 Contacts	4 Contacts	5 Contacts	6 Contacts	
With Strain Re	lief		8AP-02	AFFM-SL7	M-SL7 8AP-03AFFM-SL7 8AP-04AFFM-SL7 8AP-05AFFM-SL7 8AP-06AFFM			8AP-06AFFM-SL7	
Cable Type PVC	1M A01	3M A02	5M A05	10M A10		* Mating style (Quick	a) also avaliable for 3	& 4 contacts	

PU B01 B02 B05 B10

### 

			000		
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	6 Contacts
Without Strain Relief	Solder	-	-	-	-
Without Strain Refrei	Screw-in	8P-03BMMB-SL7001	8P-04BMMB-SL7001		

### ∠ M8 (Plastic) > Field Installable > Female Connector > Straight

Type Contact Type		000	000		
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	6 Contacts
Without Strain Relief	Solder	-	-	-	-
Without Strain Reffer	Screw-in	-	8P-04BFFB-SL7001	-	-

<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle > Male Connector
Overmolded with Cable > Male Connector

IP 67.68

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

### → M10.5 (Metal) > Receptacle > Male Connector > Rear Fastened

Backshell: Hexagonal Backshell: Circular			(0°0)	000
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts
Backshell: Hexagonal Solder Pin (180°)	105-02PMFS-SH7001	105-03PMFS-SH7001	105-04PMFS-SH7001	105-05PMFS-SH7001
Backshell: Circular Solder Pin (180°)	105-02PMFS-SC7001	105-03PMFS-SC7001	105-04PMFS-SC7001	105-05PMFS-SC7001

### 

	00	00		
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts
With Strain Relief	105-02AMMM-SR7A	105-03AMMM-SR7A	105-04AMMM-SR7A	105-05AMMM-SR7A
Without Strain Relief	105-02BFMM-SR7A	105-03BFMM-SR7A	105-04BFMM-SR7A	105-05BFMM-SR7A

### $\triangle$ M10.5 (Metal) > Overmolded with cable > Male Connector > Straight

	00	60		
Туре	2 Contacts	3 Contacts	4 Contacts	5 Contacts
With Strain Relief	105-02AFMM-SL7A	105-03AFMM-SL7A	105-04AFMM-SL7A	105-05AFMM-SL7A
Without Strain Relief	105-02BFMM-SL7A	105-03BFMM-SL7A	105-04BFMM-SL7A	105-05BFMM-SL7A

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

#### 

Backshell: Hexagonal			0 0		
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts	8 Contacts
	PG9	12-03PMMP-SF8001	12-04PMMP-SF8001	12-05PMMP-SF8001	12-08PMMP-SF8001
PCB Pin (180°)	M16.0	12-03PMMP-SF8003 12-03PMMP-SF8004	12-04PMMP-SF8003 12-04PMMP-SF8004	12-05PMMP-SF8003 12-05PMMP-SF8004	12-08PMMP-SF8003 12-08PMMP-SF8004
	M12	12-03PMMR-SF7001	12-04PMMR-SF7001	12-05PMMR-SF7001	12-08PMMR-SF7001
PCB Pin (90°)	M12 (Shielded)	12S-03PMMR-SF7001	12S-04PMMR-SF7001	12S-05PMMR-SF7001	12S-08PMMR-SF7001
F OB F III (90 )	PG9	12-03PMMR-SF8001	12-04PMMR-SF8001	12-05PMMR-SF8001	-
	M16.0	12-03PMMR-SF8003	12-04PMMR-SF8003	12-05PMMR-SF8003	-
_	PG9	12-03PMMS-SF8001	12-04PMMS-SF8001	12-05PMMS-SF8001	12-08PMMS-SF8001
Solder Pin (180°)	M16.0	12-03PMMS-SF8003 12-03PMMS-SF8004	12-04PMMS-SF8003 12-04PMMS-SF8004	12-05PMMS-SF8003 12-05PMMS-SF8004	12-08PMMS-SF8003 12-08PMMS-SF8004
Wire Leads (150mm)	PG9	12-03PMMS-SF8B15	12-04PMMS-SF8B15	12-05PMMS-SF8B15	12-08PMMS-SF8B15
(13011111)	M16.0	12-03PMMS-SF8C15	12-04PMMS-SF8C15	12-05PMMS-SF8C15	12-08PMMS-SF8C15
Wire Leads	PG9	12-03PMMS-SF8B30	12-04PMMS-SF8B30	12-05PMMS-SF8B30	12-08PMMS-SF8B30
(300mm)	M16.0	12-03PMMS-SF8C30	12-04PMMS-SF8C30	12-05PMMS-SF8C30	12-08PMMS-SF8C30
Wire Leads	PG9	12-03PMMS-SF8B50	12-04PMMS-SF8B50	12-05PMMS-SF8B50	12-08PMMS-SF8B50
(500mm)	M16.0	12-03PMMS-SF8C50	12-04PMMS-SF8C50	12-05PMMS-SF8C50	12-08PMMS-SF8C50

### → M12 A (Metal) > Receptacle > Male Connector > Rear Fastened

		0 0			
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts	8 Contacts
	PG9	12-03PMMS-SH8001	12-04PMMS-SH8001	12-05PMMS-SH8001	12-08PMMS-SH8001
Solder Pin (180°)	M16.0	12-03PMMS-SH8003 12-03PMMS-SH8004	12-04PMMS-SH8003 12-04PMMS-SH8004	12-05PMMS-SH8003 12-05PMMS-SH8004	12-08PMMS-SH8003 12-08PMMS-SH8004
Wire Leads	PG9	12-03PMMS-SH8B15	12-04PMMS-SH8B15	12-05PMMS-SH8B15	12-08PMMS-SH8B15
(150mm)	M16.0	12-03PMMS-SH8C15	12-04PMMS-SH8C15	12-05PMMS-SH8C15	12-08PMMS-SH8C15
Wire Leads	PG9	12-03PMMS-SH8B30	12-04PMMS-SH8B30	12-05PMMS-SH8B30	12-08PMMS-SH8B30
(300mm)	M16.0	12-03PMMS-SH8C30	12-04PMMS-SH8C30	12-05PMMS-SH8C30	12-08PMMS-SH8C30
Wire Leads	PG9	12-03PMMS-SH8B50	12-04PMMS-SH8B50	12-05PMMS-SH8B50	12-08PMMS-SH8B50
(500mm)	M16.0	12-03PMMS-SH8C50	12-04PMMS-SH8C50	12-05PMMS-SH8C50	12-08PMMS-SH8C50

<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle > Female Connector

IP 67.68

Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

### → M12 A (Metal) > Receptacle > Female Connector > Front Fastened

				1	1
Backshell: Hexagonal			000		0000
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts	8 Contacts
	PG9	12-03PFFP-SF8001	12-04PFFP-SF8001	12-05PFFP-SF8001	12-08PFFP-SF8001
PCB Pin (180°)	M16.0	12-03PFFP-SF8003 12-03PFFP-SF8004 12-03PFFP-SF8005	12-04PFFP-SF8003 12-04PFFP-SF8004 12-04PFFP-SF8005	12-05PFFP-SF8003 12-05PFFP-SF8004 12-05PFFP-SF8005	12-08PFFP-SF8003 12-08PFFP-SF8004 12-08PFFP-SF8005
	M12	12-03PFFR-SF7001	12-04PFFR-SF7001	12-05PFFR-SF7001	12-08PFFR-SF7001
PCB Pin (90°)	M12 (Shielded)	12S-03PFFR-SF7001	12S-04PFFR-SF7001	12S-05PFFR-SF7001	12S-08PFFR-SF7001
PGB FIII (90 )	PG9	12-03PFFR-SF8001	12-04PFFR-SF8001	12-05PFFR-SF8001	-
	M16.0	12-03PFFR-SF8003	12-04PFFR-SF8003	12-05PFFR-SF8003	-
	PG9	12-03PFFS-SF8001	12-04PFFS-SF8001	12-05PFFS-SF8001	12-08PFFS-SF8001
Solder Pin (180°)	M16.0	12-03PFFS-SF8003 12-03PFFS-SF8004	12-04PFFS-SF8003 12-04PFFS-SF8004	12-05PFFS-SF8003 12-05PFFS-SF8004	12-08PFFS-SF8003 12-08PFFS-SF8004
Wire Leads	PG9	12-03PFFS-SF8B15	12-04PFFS-SF8B15	12-05PFFS-SF8B15	12-08PFFS-SF8B15
(150mm)	M16.0	12-03PFFS-SF8C15	12-04PFFS-SF8C15	12-05PFFS-SF8C15	12-08PFFS-SF8C15
Wire Leads	PG9	12-03PFFS-SF8B30	12-04PFFS-SF8B30	12-05PFFS-SF8B30	12-08PFFS-SF8B30
(300mm)	M16.0	12-03PFFS-SF8C30	12-04PFFS-SF8C30	12-05PFFS-SF8C30	12-08PFFS-SF8C30
Wire Leads	PG9	12-03PFFS-SF8B50	12-04PFFS-SF8B50	12-05PFFS-SF8B50	12-08PFFS-SF8B50
(500mm)	M16.0	12-03PFFS-SF8C50	12-04PFFS-SF8C50	12-05PFFS-SF8C50	12-08PFFS-SF8C50

### ∠ M12 A (Metal) > Receptacle > Female Connector > Rear Fastened

			000		(OOO) (OOO)
Туре	Mounting	3 Contacts	4 Contacts	5 Contacts	8 Contacts
	Thread PG9	12-03PFFS-SH8001	12-04PFFS-SH8001	12-05PFFS-SH8001	12-08PFFS-SH8001
Solder Pin (180°)	M16.0	12-03PFFS-SH8003 12-03PFFS-SH8004	12-04PFFS-SH8003 12-04PFFS-SH8004	12-05PFFS-SH8003 12-05PFFS-SH8004	12-08PFFS-SH8003 12-08PFFS-SH8004
Wire Leads (150mm)	PG9	12-03PFFS-SH8B15	12-04PFFS-SH8B15	12-05PFFS-SH8B15	12-08PFFS-SH8B15
Wire Leads (300mm)	PG9	12-03PFFS-SH8B30	12-04PFFS-SH8B30	12-05PFFS-SH8B30	12-08PFFS-SH8B30
Wire Leads (500mm)	PG9	12-03PFFS-SH8B50	12-04PFFS-SH8B50	12-05PFFS-SH8B50	12-08PFFS-SH8B50

Overmolded with cable > Male Connector

### 

		0 0	0000	
Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts
With Strain Relief	12-03AMMM-SR7	12-04AMMM-SR7	12-05AMMM-SR7	12-08AMMM-SR7
Without Strain Relief	12-03BMMM-SR7 12-03BMMM-SR8	12-04BMMM-SR7 12-04BMMM-SR8	12-05BMMM-SR7 12-05BMMM-SR8	12-08BMMM-SR7 12-08BMMM-SR8

Amplines	000	0 0		
Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts
With Strain Relief	12-03AMMM-SL7	12-04AMMM-SL7	12-05AMMM-SL7	12-08AMMM-SL7
Without Strain Relief	12-03BMMM-SL7 12-03BMMM-SL8	12-04BMMM-SL7 12-04BMMM-SL8	12-05BMMM-SL7 12-05BMMM-SL8	12-08BMMM-SL7 12-08BMMM-SL8
	12S-03BMMM-SL7 (Shielded)	12S-04BMMM-SL7 (Shielded)	12S-05BMMM-SL7 (Shielded)	12S-08BMMM-SL7 (Shielded)

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

<sup>\*</sup> Design and specification are subject to change without notice.

IP 67 . 68

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

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	000	000			
Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts	
With Strain Relief	12-03AFFM-SR7	12-04AFFM-SR7	12-05AFFM-SR7	12-08AFFM-SR7	
Without Strain Relief	12L-03BFFM-SR7 (With LED)	12-04BFFM-SR8	12-05BFFM-SR8	12-08BFFM-SR8	
	12-03BFFM-SR8				

			000	
Туре	Type 3 Contacts		5 Contacts	8 Contacts
With Strain Relief	With Strain Relief 12-03AFFM-SL7		12-05AFFM-SL7	12-08AFFM-SL7
Without Strain Relief	12S-03BFFM-SL7 (Shielded)	12S-04BFFM-SL7 (Shielded)	12S-05BFFM-SL7 (Shi el ded)	12S-08BFFM-SL7 (Shielded)
	12-03BFFM-SL8	12-04BFFM-SL8	12-05BFFM-SL8	12-08BFFM-SL8

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

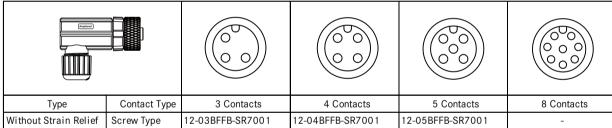
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		Do o			
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	Screw Type	12-03BMMB-SR7001	12-04BMMB-SR7001	12-05BMMB-SR7001	-

### 

	Solder Type  Screw Type				
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	Solder Type	12-03BMMA-SL8001	12-04BMMA-SL8001	12-05BMMA-SL8001	12-08BMMA-SL8001
	Screw Type	12-03BMMB-SL7001	12-04BMMB-SL7001	12-05BMMB-SL7001	-

### 



	Solder Type		000		0000
Туре		3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	Solder Type	12-03BFFA-SL8001	12-04BFFA-SL8001	12-05BFFA-SL8001	12-08BFFA-SL8001
	Screw Type	12-03BFFB-SL7001	12-04BFFB-SL7001	12-05BFFB-SL7001	=

<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle > Male / Female Connector

IP 67 . 68 g

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

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Backshell: Hexagon	al	000	0 0		
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts	8 Contacts
PCB Pin (90°)	M12	12P-03PMMR-SF8001	12P-04PMMR-SF8001	12P-05PMMR-SF8001	-

### → M12 A (Plastic) > Receptacle > Female Connector > Front Fastened

Backshell: Hexagonal		600	000	000	0000
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts	8 Contacts
PCB Pin (180°)	M16.0	12P-03PFFP-SF8003	12P-04PFFP-SF8003	12P-05PFFP-SF8003	12P-08PFFP-SF8003
PCB Pin (90°)	M16.0	12P-03PFFR-SF8003	12P-04PFFR-SF8003	12P-05PFFR-SF8003	-
Solder Pin (180°)	M16.0	12P-03PFFS-SF8003	12P-04PFFS-SF8003	12P-05PFFS-SF8003	12P-08PFFS-SF8003

#### 

Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	12P-03BMMM-SR8	12P-04BMMM-SR8	12P-05BMMM-SR8	12P-08BMMM-SR8

#### 

Aarw	0 0			
Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	12P-03BMMM-SL8	12P-04BMMM-SL8	12P-05BMMM-SL8	12P-08BMMM-SL8

### 

	000			
Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	12P-03BFFM-SR8	12P-04BFFM-SR8	12P-05BFFM-SR8	12P-08BFFM-SR8

	000	000	000	
Туре	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	12P-03BFFM-SL8	12P-04BFFM-SL8	12P-05BFFM-SL8	12P-08BFFM-SL8

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

<sup>\*</sup> Design and specification are subject to change without notice.

Field Installable > Male / Female Connector

IP 67 . 68 9

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

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		000			
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	8 Contacts
I Without Strain Relief	Solder Type	-	-	-	-
	Screw Type	12P-03BMMB-SR7001	12P-04BMMB-SR7001	12P-05BMMB-SR7001	-

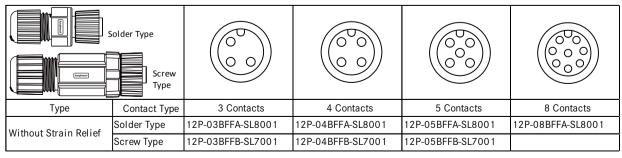
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	Solder Type Screw Type	000	000		
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	8 Contacts
Without Strain Relief	Solder Type	12P-03BMMA-SL7001 12P-03BMMA-SL8001	12P-04BMMA-SL7001 12P-04BMMA-SL8001	12P-05BMMA-SL7001 12P-05BMMA-SL8001	12P-08BMMA-SL8001
	Screw Type	12P-03BMMB-SL7001	12P-04BMMB-SL7001	12P-05BMMB-SL7001	

### 

		600			
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts	8 Contacts
I Without Strain Relief	Solder Type	-	-	-	-
	Screw Type	12P-03BFFB-SR7001	12P-04BFFB-SR7001	12P-05BFFB-SR7001	-

### △ M12 A (Plastic) > Field Installable > Female Connector > Straight



### ∠ M12 B (Metal) > Receptacle > Male Connector > Front Fastened

Backshell: Hexagonal			0 0	
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
_	PG9	12B-03PMMP-SF8001	12B-04PMMP-SF8001	12B-05PMMP-SF8001
PCB Pin (180°)	M16	12B-03PMMP-SF8003	12B-04PMMP-SF8003 12B-04PMMP-SF8004	12B-05PMMP-SF8003 12B-05PMMP-SF8004
	M12	-	-	SBS-05PMMR-SF7001
PCB Pin (90°)	PG9	12B-03PMMR-SF8001	12B-04PMMR-SF8001	12B-05PMMR-SF8001 12B-05PMMR-SF7001
	M16	12B-03PMMR-SF8003	12B-04PMMR-SF8003	12B-05PMMR-SF8003
	PG9	12B-03PMMS-SF8001	12B-04PMMS-SF8001	12B-05PMMS-SF8001
Solder Pin (180°)	M16	12B-03PMMS-SF8003	12B-04PMMS-SF8003 12B-04PMMS-SF8004	12B-05PMMS-SF8003 12B-05PMMS-SF8004
Wire Leads (150mm)	PG9	=	-	12B-05PMMS-SF8B15
wile Leads (150iiiii)	M16		-	12B-05PMMS-SF8C15
Wire Leads (200mm)	PG9	=	-	12B-05PMMS-SF8B30
Wire Leads (300mm)	M16	=	-	12B-05PMMS-SF8C30
Wire Leads (500mm)	PG9	=	-	12B-05PMMS-SF8B50
wile Leads (300iiiii)	M16	-	-	12B-05PMMS-SF8C50

		0 0	0 0	0000
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
	PG9	12B-03PMMS-SH8001	12B-04PMMS-SH8001	12B-05PMMS-SH8001
PCB Pin (180°)	M16	12B-03PMMS-SH8003	12B-04PMMS-SH8003 12B-04PMMS-SH8004	12B-05PMMS-SH8003 12B-05PMMS-SH8004
Wire Leade (150mm)	PG9	-	-	12B-05PMMS-SH8B15
Wire Leads (150mm)	M16	-	-	12B-05PMMS-SH8C15
Wire Leads (200mm)	PG9	-	-	12B-05PMMS-SH8B30
Wire Leads (300mm)	M16	-	=	12B-05PMMS-SH8C30
Mine Leads (FOOmers)	PG9	-	=	12B-05PMMS-SH8B50
Wire Leads (500mm)	M16	-	-	12B-05PMMS-SH8C50

<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle I Unmated

Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

### ∠ M12 B (Metal) Receptacle > Female Connector > Front Fastened

Backshell: Hexagonal			000	
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
	PG9	12B-03PFFP-SF8001	12B-04PFFP-SF8001	12B-05PFFP-SF8001
PCB Pin (180°)	M16	12B-03PFFP-SF8003	12B-04PFFP-SF8003 12B-04PFFP-SF8004 12B-04PFFP-SF8005	12B-05PFFP-SF8003 12B-05PFFP-SF8004 12B-05PFFP-SF8005
	M12	-	-	SBS-05PFFR-SF7001
PCB Pin (90°)	PG9	12B-03PFFR-SF8001	12B-04PFFR-SF8001	12B-05PFFR-SF8001 12B-05PFFR-SF7001
	M16	12B-03PFFR-SF8003	12B-04PFFR-SF8003	12B-05PFFR-SF8003
	PG9	12B-03PFFS-SF8001	12B-04PFFS-SF8001	12B-05PFFS-SF8001
Solder Pin (180°)	M16	12B-03PFFS-SF8003	12B-04PFFS-SF8003 12B-04PFFS-SF8004	12B-05PFFS-SF8003 12B-05PFFS-SF8004
Wine Landa (150mm)	PG9	-	-	12B-05PFFS-SF8B15
Wire Leads (150mm)	M16	-	-	12B-05PFFS-SF8C15
Wire Leade (200mm)	PG9	-	-	12B-05PFFS-SF8B30
Wire Leads (300mm)	M16	-	-	12B-05PFFS-SF8C30
Wire Leade (F00mm)	PG9	-	-	12B-05PFFS-SF8B50
Wire Leads (500mm)	M16	-	-	12B-05PFFS-SF8C50

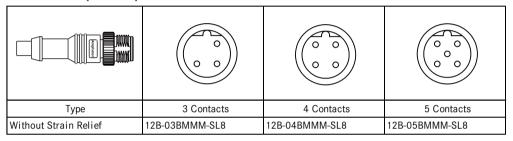
### ∠ M12 B (Metal) > Receptacle > Female Connector > Rear Fastened

Amphanal				
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
	PG9	12B-03PFFS-SH8001	12B-04PFFS-SH8001	12B-05PFFS-SH8001
PCB Pin (180°)	M16	12B-03PFFS-SH8003	12B-04PFFS-SH8003 12B-04PFFS-SH8004	12B-05PFFS-SH8003 12B-05PFFS-SH8004
Wire Leads (150mm)	PG9	-	-	12B-05PFFS-SH8B15
Wire Leads (300mm)	PG9	-	-	12B-05PFFS-SH8B30
Wire Leads (500mm)	PG9	-	-	12B-05PFFS-SH8B50

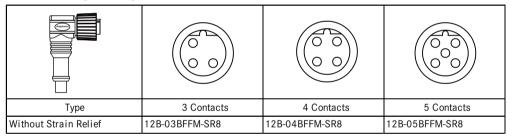
#### 

		0 0	
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	12B-03BMMM-SR8	12B-04BMMM-SR8	12B-05BMMM-SR8

#### 



### riangle M12 B (Metal) > Overmolded with cable > Female Connector > Right Angle



### ∠ MM12 B (Metal) > Overmolded with cable > Female Connector > Straight

Maghani			
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	12B-03BFFM-SL8	12B-04BFFM-SL8	12B-05BFFM-SL8

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

<sup>\*</sup> Design and specification are subject to change without notice.

IP 67.68 9

Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

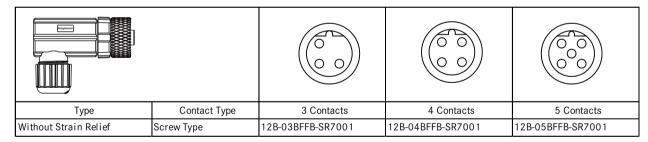
#### 

		0 0		0000
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Screw Type	12B-03BMMB-SR7001	12B-04BMMB-SR7001	12B-05BMMB-SR7001

### 

	Solder Type Screw Type	000		0000
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	12B-03BMMA-SL8001	12B-04BMMA-SL8001	12B-05BMMA-SL8001
Without Strain Refrei	Screw Type	12B-03BMMB-SL7001	12B-04BMMB-SL7001	12B-05BMMB-SL7001

### 



### → M12 B (Metal) > Field Installable > Female Connector > Straight

	Solder Type Screw Type			
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	12B-03BFFA-SL8001	12B-04BFFA-SL8001	12B-05BFFA-SL8001
Without Strain Reffer	Screw Type	12B-03BFFB-SL7001	12B-04BFFB-SL7001	12B-05BFFB-SL7001

Receptacle > Male / Female Connector Overmolded with cable > Male / Female Connector

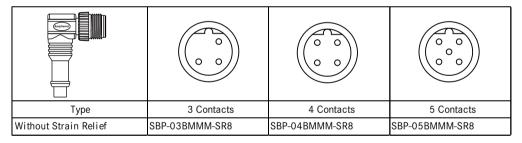
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Backshell: Hexagonal		0 0		
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
PCB Pin (90°)	M12	-	=	SBP-05PMMR-SF8001

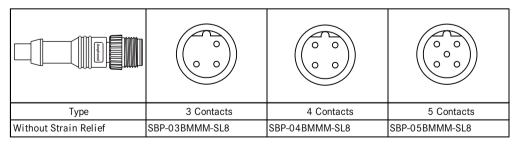
#### 

Backshell: Hexagonal				
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
PCB Pin (90°)	M12	-	-	SBP-05PFFR-SF8001

### riangleq M12 B (Plastic) > Overmolded with cable > Male Connector > Right Angle



### △ M12 B (Plastic) > Overmolded with cable > Male Connector > Straight



Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

<sup>\*</sup> Design and specification are subject to change without notice.

### M Series Sensor Connector I Find Our Standard Products

M12 B Code (Plastic)

Overmolded with cable > Female Connector Field Installable > Male Connector

IP 67 . 68 9

Receptacle I Unmated

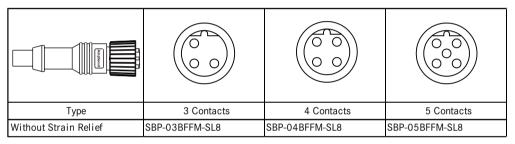
Overmolded with Cable I Mated

Field Installable I Mated

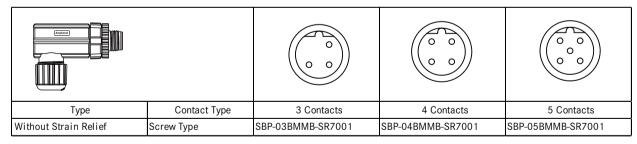
### 

Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	SBP-03BFFM-SR8	SBP-04BFFM-SR8	SBP-05BFFM-SR8

### 



Cable Type	1M	3M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10



#### 

	Solder Type Screw Type	0 0		000
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	SBP-03BMMA-SL8001	SBP-04BMMA-SL8001	SBP-05BMMA-SL8001
	Screw Type	SBP-03BMMB-SL7001	SBP-04BMMB-SL7001	SBP-05BMMB-SL7001

### 

Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Screw Type	SBP-03BFFB-SR7001	SBP-04BFFB-SR7001	SBP-05BFFB-SR7001

	Solder Type Screw Type			
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	SBP-03BFFA-SL8001	SBP-04BFFA-SL8001	SBP-05BFFA-SL8001
Without Strain Reflet	Screw Type	SBP-03BFFB-SL7001	SBP-04BFFB-SL7001	SBP-05BFFB-SL7001

<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle > Male Connector

IP 67.68

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

### → M12 D (Metal) > Receptacle > Male Connector > Front Fastened

			000		
Backshell: Hexagonal					
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts	
	PG9	-	12D-04PMMP-SF8001	12D-05PMMP-SF8001	
PCB Pin (180°)	M16.0	-	12D-04PMMP-SF8003 12D-04PMMP-SF8004	12D-05PMMP-SF8003 12D-05PMMP-SF8004	
PCB Pin (90°)	PG9	-	12D-04PMMR-SF7001 12D-04PMMR-SF8001	-	
(, , ,	M12		12D-04PMMR-SF7007		
	M12 (Shielded)	_	SDS-04PMMR-SF7007	] -	
	PG9	12D-03PMMS-SF8001	12D-04PMMS-SF8001	12D-05PMMS-SF8001	
Solder Pin (180°)	M16.0	-	12D-04PMMS-SF8003 12D-04PMMS-SF8004	12D-05PMMS-SF8003 12D-05PMMS-SF8004	
Wire Leade (150mm)	PG9	-	12D-04PMMS-SF8B15	-	
Wire Leads (150mm)	M16.0	-	12D-04PMMS-SF8C15	-	
Wire Leads (300mm)	PG9	-	12D-04PMMS-SF8B30	-	
	M16.0	-	12D-04PMMS-SF8C30	-	
Wire Leade (E00mm)	PG9	-	12D-04PMMS-SF8B50	-	
Wire Leads (500mm)	M16.0	-	12D-04PMMS-SF8C50	-	

### → M12 D (Metal) > Receptacle > Male Connector > Rear Fastened

Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
	PG9	12D-03PMMS-SH8001	12D-04PMMS-SH8001	12D-05PMMS-SH8001
Solder Pin (180°)	M16.0	-	12D-04PMMS-SH8003 12D-04PMMS-SH8004	12D-05PMMS-SH8003 12D-04PMMS-SH8004
Wire Leade (150mm)	PG9	-	12D-04PMMS-SH8B15	-
Wire Leads (150mm)	M16.0	-	12D-04PMMS-SH8C15	-
Wire Leads (300mm)	PG9	-	12D-04PMMS-SH8B30	-
	M16.0	-	12D-04PMMS-SH8C30	-
Wire Leade (FOOmm)	PG9	-	12D-04PMMS-SH8B50	-
Wire Leads (500mm)	M16.0	-	12D-04PMMS-SH8C50	-

### ∠ M12 D (Metal) > Receptacle > Female Connector > Front Fastened

Backshell: Hexagonal		0 09	000	
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
	PG9	12D-03PFFP-SF8001	12D-04PFFP-SF8001	12D-05PFFP-SF8001
PCB Pin (180°)	M16.0	-	12D-04PFFP-SF8003 12D-04PFFP-SF8004 12D-04PFFP-SF8005	12D-05PFFP-SF8003 12D-05PFFP-SF8004 12D-05PFFP-SF8005
	PG9	12D-03PFFR-SF8001	12D-04PFFR-SF7001 12D-04PFFR-SF8001	12D-05PFFR-SF8001
PCB Pin (90°)	M16.0	12D-03PFFR-SF8003	12D-04PFFR-SF8003	12D-05PFFR-SF8003
	M12		12D-04PFFR-SF7007	_
	M12 (Shielded)		SDS-04PFFR-SF7007	
	PG9	12D-03PFFS-SF8001	12D-04PFFS-SF8001	12D-05PFFS-SF8001
Solder Pin (180°)	M16.0	12D-03PFFS-SF8003	12D-04PFFS-SF8003 12D-04PFFS-SF8004	12D-05PFFS-SF8003 12D-05PFFS-SF8004
Wire Leads (150mm)	PG9	-	12D-04PFFS-SF8B15	-
wire Leads (150mm)	M16.0	-	12D-04PFFS-SF8C15	
Wire Leads (300mm)	PG9	-	12D-04PFFS-SF8B30	
Wile Leads (300IIIII)	M16.0	-	12D-04PFFS-SF8C30	-
Wire Leads (500mm)	PG9	-	12D-04PFFS-SF8B50	-
Wile Leads (Journill)	M16.0	-	12D-04PFFS-SF8C50	-

### ∠ M12 D (Metal) > Receptacle > Female Connector > Rear Fastened

Annual VIII		000	000	000
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
	PG9	12D-03PFFS-SH8001	12D-04PFFS-SH8001	12D-05PFFS-SH8001
Solder Pin (180°)	M16.0	12D-03PFFS-SH8003	12D-04PFFS-SH8003 12D-04PFFS-SH8004	12D-05PFFS-SH8003 12D-05PFFS-SH8004
Wire Leads (150mm)	PG9	-	12D-04PFFS-SH8B15	-
Wire Leads (300mm)	PG9	-	12D-04PFFS-SH8B30	-
Wire Leads (500mm)	PG9	=	12D-04PFFS-SH8B50	-

<sup>\*</sup> Design and specification are subject to change without notice.

IP 67 . 68

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

### 

		0 0	
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	12D-03BMMM-SR8	12D-04BMMM-SR8	12D-05BMMM-SR8

### 

		0 0	
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	12D-03BMMM-SL8	12D-04BMMM-SL8	12D-05BMMM-SL8

#### 

	000		
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	12D-03BFFM-SR8	12D-04BFFM-SR8	12D-05BFFM-SR8

Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	12D-03BFFM-SL8	12D-04BFFM-SL8	12D-05BFFM-SL8

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

### → M12 D (Metal) > Field Installable > Male Connector > Right Angle

Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Screw Type	12D-03BMMB-SR7001	12D-04BMMB-SR7001	12D-05BMMB-SR7001

### 

	Solder Type Screw Type			000
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	12D-03BMMA-SL8001	12D-04BMMA-SL8001	12D-05BMMA-SL8001
Without Shall Reflet	Screw Type	12D-03BMMB-SL7001	12D-04BMMB-SL7001	12D-05BMMB-SL7001

### ∠ M12 D (Metal) > Field Installable > Female Connector > Right Angle

Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Screw Type	12D-03BFFB-SR7001	12D-04BFFB-SR7001	12D-05BFFB-SR7001

### ∠ M12 D (Metal) > Field Installable > Female Connector > Straight

	Solder Type Screw Type			
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	12D-03BFFA-SL8001	12D-04BFFA-SL8001	12D-05BFFA-SL8001
Williout Strain Reffer	Screw Type	12D-03BFFB-SL7001	12D-04BFFB-SL7001	12D-05BFFB-SL7001

<sup>\*</sup> Design and specification are subject to change without notice.

#### M Series Sensor Connector I Find Our Standard Products

M12 D Code (Plastic)

Receptacle > Male / Female Connector Overmolded with cable > Male Connector IP 67 . 68

Receptacle I Unmated Overmolded with Cable I Mated Field Installable I Mated

### ∠ M12 D (Plastic) > Receptacle > Male Connector > Front Fastened

Backshell: Hexagonal			000	
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
PCB Pin (90°)	M12	-	SDP-04PMMR-SF8001	-

### ∠ M12 D (Plastic) > Receptacle > Female Connector > Front Fastened

Backshell: Hexagonal				
Туре	Mounting Thread	3 Contacts	4 Contacts	5 Contacts
PCB Pin (90°)	M12	=	SDP-04PFFR-SF8001	-

### 

		0000	
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	SDP-03BMMM-SR8	SDP-04BMMM-SR8	SDP-05BMMM-SR8

	000	000	
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	SDP-03BMMM-SL8	SDP-04BMMM-SL8	SDP-05BMMM-SL8

Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

Overmolded with cable > Female Connector Field Installable > Male Connector

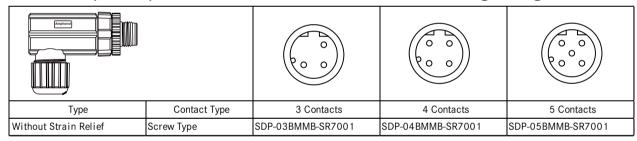
### 

	000		
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	SDP-03BFFM-SR8	SDP-04BFFM-SR8	SDP-05BFFM-SR8

#### 

	000	000	000
Туре	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	SDP-03BFFM-SL8	SDP-04BFFM-SL8	SDP-05BFFM-SL8

### 



	Solder Type		00	
Screw Type		( bo o)	(Bo o)	(800)
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	SDP-03BMMA-SL8001	SDP-04BMMA-SL8001	SDP-05BMMA-SL8001
	Screw Type	SDP-03BMMB-SL7001	SDP-04BMMB-SL7001	SDP-05BMMB-SL7001

<sup>\*</sup> Design and specification are subject to change without notice.

Field Installable > Female Connector

IP 67 . 68 9

Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

### 

		0 09	000	
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Screw Type	SDP-03BFFB-SR7001	SDP-04BFFB-SR7001	SDP-05BFFB-SR7001

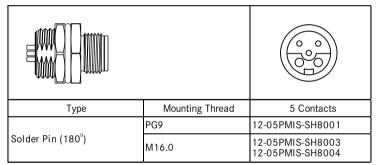
### → M12 D (Plastic) > Field Installable > Female Connector > Straight

	Solder Type		000	
Туре	Contact Type	3 Contacts	4 Contacts	5 Contacts
Without Strain Relief	Solder Type	SDP-03BFFA-SL8001	SDP-04BFFA-SL8001	SDP-05BFFA-SL8001
	Screw Type	SDP-03BFFB-SL7001	SDP-04BFFB-SL7001	SDP-05BFFB-SL7001

# ∠ M12 I (Metal) > Receptacle > Male Connector (Housing) > Front Fastened (Male+Female Contact)

Backshell: Hexagonal		
Туре	Mounting Thread	5 Contacts
_	PG9	12-05PMIP-SF8001
PCB Pin (180°)	M16.0	12-05PMIP-SF8003 12-05PMIP-SF8004
PCB Pin (90°)	PG9	12-05PMIR-SF8001
POD PIII (90 )	M16.0	12-05PMIR-SF8003
	PG9	12-05PMIS-SF8001
Solder Pin (180°)	M16.0	12-05PMIS-SF8003 12-05PMIS-SF8004

## 



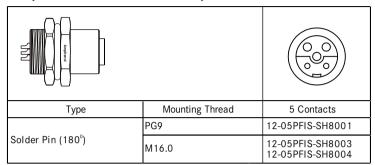
Backshell: Hexagonal			
Туре	Mounting Thread	5 Contacts	
	PG9	12-05PFIP-SF8001	
PCB Pin (180°)	M16.0	12-05PFIP-SF8003 12-05PFIP-SF8004	
PCB Pin (90°)	PG9	12-05PFIR-SF8001	
POB FIII (90)	M16.0	12-05PFIR-SF8003	
	PG9	12-05PFIS-SF8001	
Solder Pin (180°)	M16.0	12-05PFIS-SF8003 12-05PFIS-SF8004	

<sup>\*</sup> Design and specification are subject to change without notice.

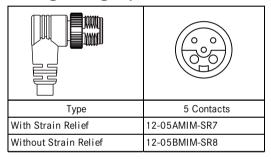
Receptacle > Female / Male Connector (Housing)
Overmolded with cable > Male Connector (Housing)

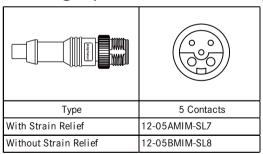
Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

# ☑ M12 I (Metal) > Receptacle > Female Connector (Housing) > Rear Fastened (Male+Female Contact)



### 

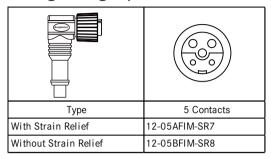


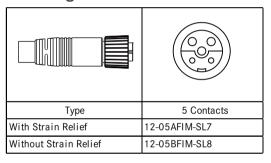


Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

Overmolded with cable > Female / Male Connector (Housing)

### 





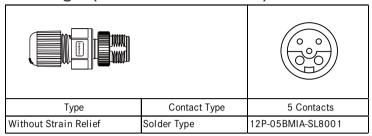
Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

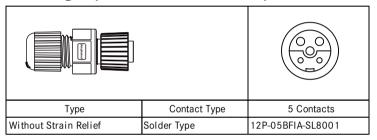
<sup>\*</sup> Design and specification are subject to change without notice.

IP 67 . 68 9

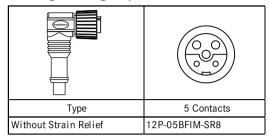
Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

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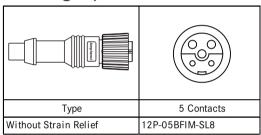




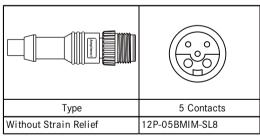
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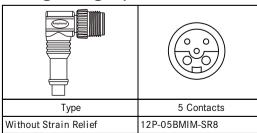


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Cable Type	1M	2M	5M	10M
PVC	A01	A02	A05	A10
PU	B01	B02	B05	B10

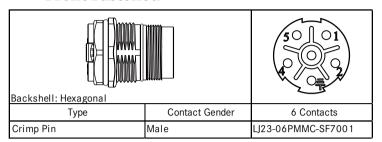
<sup>\*</sup> Design and specification are subject to change without notice.

### M Series Sensor Connector I Find Our Standard Products

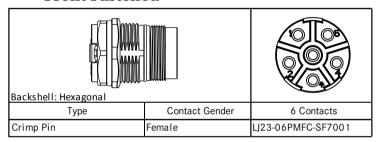
M23 Style (Metal)

Receptacle (Field Installable Typle) > Male Connector (Housing) Field Installable > Female Connector (Housing) Receptacle I Unmated
Overmolded with Cable I Mated
Field Installable I Mated

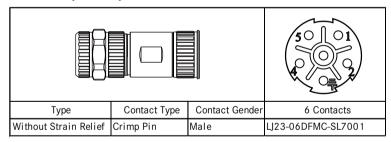
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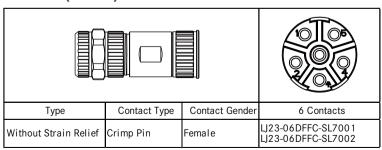


#### 



### 





# → Heavy Duty Shielded Connector (Metal) > Receptacle > Male Connector (Housing) > Front Fastened

Backshell: Square Mating style: Screw Thread Mounting Thread: M3*4 pics		re Thread I: M3*4 pics		uare Screw Thread ead: M3*4 pics		00	000	000
Current Rating	Contact Type	Salt Spray Test	2 Contacts	3 Contacts	4 Contacts	5 Contacts		
10A	PCB Pin (180°)	48H	-	-	LB20-04PMFS-SW8001	LB20-05PMFS-SW8001		
TOA	/ Female	500H	-	-	HB20-04PMFS-SW8001	HB20-05PMFS-SW8001		
20A	PCB Pin (180°)	48H	LC20-02PMFS-SW8001	LC20-03PMFS-SW8001	-	-		
ZUA	/ Female			-	-			
Backshell: Square Mating style: Screw Thread Mounting Thread: M3*4 pics			000	000	000	0000		
Current Rating	Contact Type	Salt Spray Test	7 Contacts	10 Contacts	12 Contacts	14 Contacts		
5A	PCB Pin (180°)	48H	-	LD20-10PMFS-SW8001	LD20-12PMFS-SW8001	LD20-14PMFS-SW8001		
JA	/ Female 500H		-	HD20-10PMFS-SW8001	HD20-12PMFS-SW8001	HD20-14PMFS-SW8001		
10A	PCB Pin (180°)	48H	LB20-07PMFS-SW8001	-	-	-		
IUA	/ Female	500H	HB20-07PMFS-SW8001	-	-	-		

# □ Heavy Duty Shielded Connector (Metal) > Receptacle > Male Connector (Housing) > Rear Fastened

Backshell: Square Mating style: Screw Thread With Nut Mounting Thread: M20		00	00	0 0	0 0	
Current Rating	Contact Type	Salt Spray Test	2 Contacts	3 Contacts	4 Contacts	5 Contacts
104	PCB Pin (180°)	48H	-	-	LB20-04PMFS-SN8001	LB20-05PMFS-SN8001
TUA	10A Female		-	-	HB20-04PMFS-SN8001	HB20-05PMFS-SN8001
204	20A PCB Pin (180°) 48H / Female 500H		LC20-02PMFS-SN8001	LC20-03PMFS-SN8001	-	-
20A			HC20-02PMFS-SN8001	HC20-03PMFS-SN8001	-	-
Backshell: Squa Mating style: Sc Mounting Thread	rew Thread With d: M20		000000	000	000000000000000000000000000000000000000	000000000000000000000000000000000000000
Current Rating		Salt Spray Test	7 Contacts	10 Contacts	12 Contacts	14 Contacts
5A	PCB Pin (180°) / Female	48H 500H	-	LD20-10PMFS-SN8001 HD20-10PMFS-SN8001	LD20-12PMFS-SN8001 HD20-12PMFS-SN8001	LD20-14PMFS-SN8001 HD20-14PMFS-SN8001
10A	PCB Pin (180°) / Female	48H 500H	LB20-07PMFS-SN8001 HB20-07PMFS-SN8001	-	-	-

<sup>\*</sup> Design and specification are subject to change without notice.

Field Installable > Female Connector

IP 65 . 67 9

Receptacle I Unmated
Overmolded with Cable I Mated

Field Installable I Mated

# → Heavy Duty Shielded Connector (Metal) > Field Installable > Female Connector (Housing) > Straight

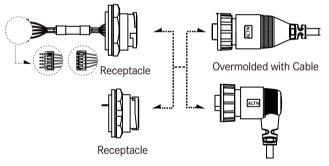
Without Strain Relief		00	000	0 0	000	
Current Rating	Contact Type	Salt Spray Test	2 Contacts	3 Contacts	4 Contacts	5 Contacts
10A	Solder Type /	48H	-	-	LB20-04BFMA-SL8001	LB20-05BFMA-SL8001
TOA	Male	500H	=	-	HB20-04BFMA-SL8001	HB20-05BFMA-SL8001
20A	Solder Type /	48H	LC20-02BFMA-SL8001	LC20-03BFMA-SL8001	-	-
ZUA	Male	500H	HC20-02BFMA-SL8001	HC20-03BFMA-SL8001	-	-
Without Strain Relief			00000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000
Current Rating	Contact Type	Salt Spray Test	7 Contacts	10 Contacts	12 Contacts	14 Contacts
5A	Solder Type /	48H	-	LD20-10BFMA-SL8001	LD20-12BFMA-SL8001	LD20-14BFMA-SL8001
JA.	Male	500H	-	HD20-10BFMA-SL8001	HD20-12BFMA-SL8001	HD20-14BFMA-SL8001
10A	Solder Type /	48H	LB20-07BFMA-SL8001	-	-	-
107	Male	500H	HB20-07BFMA-SL8001	-	-	-

Memo	
	Scan to visit our website

## **USB Connector**

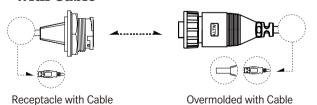


# **Range Overview**

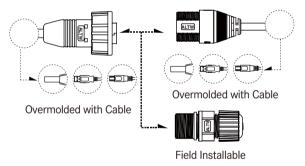


Overmolded with Cable

□ Receptacle with Cable to Overmolded with Cable



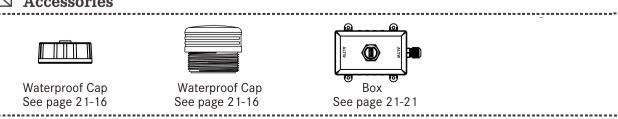
#### 



#### 



#### △ Accessories

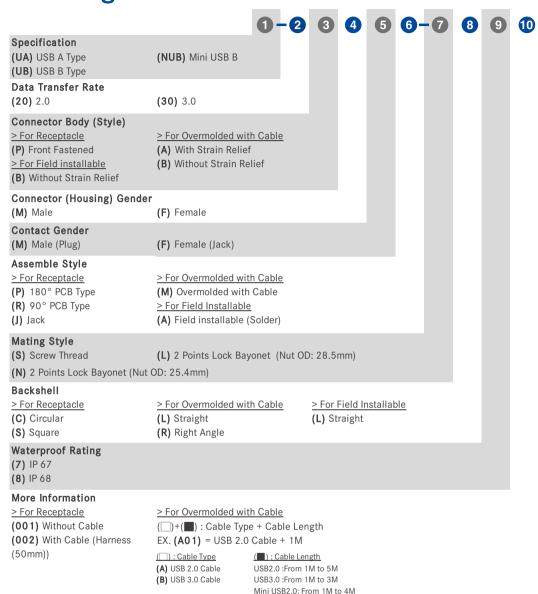


# **Specification**

Identifications	USB 3.0 A Type USB 2.0 A Type, USB 2.0 B Type Mini USB 2.0 B Type Micro USB: Available soon
Description	Receptacle Receptacle With Cable Overmolded with Cable Field Installable
Current Rating / Data	1.5A
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing) : PBT UL94V-0
Waterproof Rating	IP67~68
Temperature Range	Receptacle: Nylon+GF: -40°C~105°C  M-PPE: -40°C~105°C  ABS: -20°C~80°C  Receptacle with cable: Nylon+GF: -20°C~105°C  ABS: -20°C~80°C  Overmolded with Cable: -20°C~80°C  Field Installable: -20°C~80°C
Contact Resistance	≤ 30mΩ
Insulation Resistance	$\geq 1000 m\Omega$ at DC500V
Breakdown Voltage	≥ AC500V / 1 minute
More to know	USB 2.0: Standard Cable Length: 01-05M USB 3.0: Standard Cable Length: 01-03M Mini USB: Standard Cable Length: 01-04M

<sup>\*</sup> Design and specification are subject to change without notice.

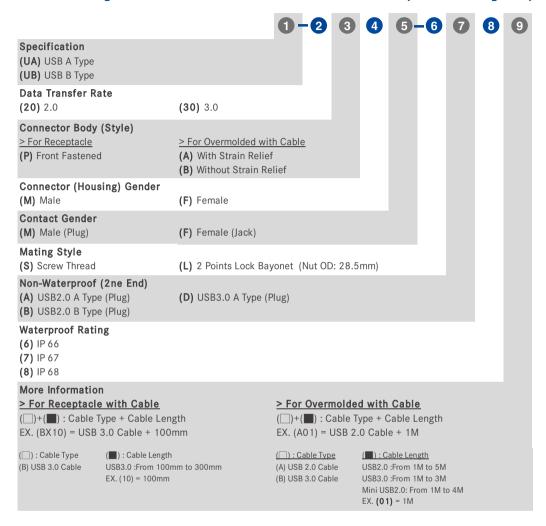
# **Ordering Information**



EX. (01) = 1M

# Ordering Information | Double-ended

ALTW waterproof connector to ALTW waterproof connector ALTW waterproof connector to Standard USB connector (None Waterproof)



<sup>\*</sup> Design and specification are subject to change without notice.

# **Physical Dimension**

#### **∠** Receptacle

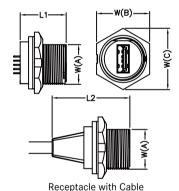
Panel Cut-Out



Turn	20	Connector Gender	L	OD
Тур	e	(Housing)	Ma	ale
	Type A	Screw Thread	19.4	20.8
USB2.0	Type A	2 Points Lock Bayonet	23.6	25.6
USB2.0	Type B	Screw Thread	19.4	20.8
	туре в	2 Points Lock Bayonet	23.6	25.6
USB3.0	Tuno A	Screw Thread	19.4	20.8
0363.0	Type A	2 Points Lock Bayonet	23.6	25.6
Mini USB	_	Screw Thread	14.8	15.6

<sup>\*</sup> Maximum Panel Thickness: USB: 4mm I Mini USB: 2.5mm

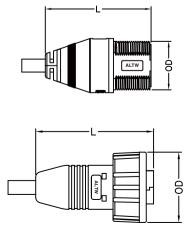
#### Connector Dimension



Type		Connector Gender	W(A)	W(B)	W(C)	L1	L2
тур	е	(Housing)			Male		
	Type A	Screw Thread	19.0	25.4	29.3	22.0	1
USB2.0	Type A	2 Points Lock Bayonet	23.2	28.5	32.9	20.3	1
0362.0	Type B	Screw Thread	19.0	25.4	29.3	22.0	1
	туре в	2 Points Lock Bayonet	23.2	28.5	32.9	20.3	1
LICD 2 O	Type A	Screw Thread	19.0	25.4	29.3	1	37.2
USB3.0 Type A		2 Points Lock Bayonet	23.2	28.5	32.9	1	37.5
Mini USB	-	Screw Thread	14.5	20.6	23.5	15.0	-

<sup>\*</sup> USB: Screw I Middle Size (13/16"-28 UNS)

#### □ Overmolded with Cable



Туре		Connector Gender	L		OD	
		(Housing)	Female	Male	Female	Male
	Type A	Screw Thread	42.6	45.0	25.4	20.6
USB2.0	Type A	2 Points Lock Bayonet	73.3	-	28.5	-
0362.0	Type B	Screw Thread	42.6	45.0	25.4	20.6
	туре в	2 Points Lock Bayonet	73.3	ı	28.5	ı
USB3.0	Type A	Screw Thread	42.6	45.0	42.6	20.6
0303.0	Type A	2 Points Lock Bayonet	75.0	ı	28.5	ı
Mini USB	-	Screw Thread	42.6	45.0	20.0	15.45

<sup>\*</sup> USB: Screw I Middle Size (13/16"-28 UNS)

2 Points Lock Bayonet I Large Size (1"20 UNEF)

Dimensions are shown in millimeters

<sup>\*</sup> USB: Screw I Middle Size (13/16"-28 UNS)

<sup>2</sup> Points Lock Bayonet I Large Size (1"20 UNEF)

<sup>\*</sup> Mini USB: Screw I Standard Size (5/8"-27 UNS)

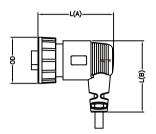
Dimensions are shown in millimeters

<sup>2</sup> Points Lock Bayonet I Large Size (1"20 UNEF)

<sup>\*</sup>Mini USB: Screw I Standard Size (5/8"-27 UNS)

<sup>\*</sup>Mini USB: Screw I Standard Size (5/8"-27 UNS)

### **△** Overmolded with Cable



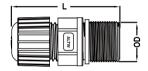
	Type		Connector Gender	L(	A)	L(	L(B)		OD	
	тур	E	(Housing)	Female	Male	Female	Male	Female	Male	
	USB2.0 Type A	Tuno A	Screw Thread	-	-	-	-	-	-	
		Type A	2 Points Lock Bayonet	46.8	-	44.1	-	28.5	-	
		Type R	Screw Thread	-	-	-	-	-	-	
l			2 Points Lock Bayonet	46.8	-	44.1	-	28.5	-	

<sup>\*</sup> USB: Screw I Middle Size (13/16"-28 UNS)

Dimensions are shown in millimeters

2 Points Lock Bayonet I Large Size (1"20 UNEF)

#### □ Field Installable



Tun	_	Connector Gender		L	С	D
Тур	e	(Housing)	Female	Male	Female	Male
	Tura A	Screw Thread	-	56.0	-	20.6
USB2.0	Type A	2 Points Lock Bayonet	-	-	-	-
USBZ.U	Type B	Screw Thread	1	56.0	-	20.6
	Туре в	2 Points Lock Bayonet	-	-	-	_
Mini USB	_	Screw Thread	-	45.0	_	15.45

<sup>\*</sup> USB: Screw I Middle Size (13/16"-28 UNS)

2 Points Lock Bayonet I Large Size (1"20 UNEF)

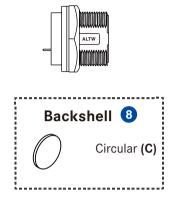
Dimensions are shown in millimeters

<sup>\*</sup>Mini USB: Screw I Standard Size (5/8"-27 UNS)

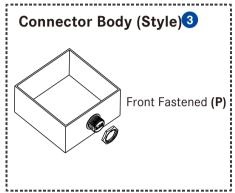
<sup>\*</sup> Design and specification are subject to change without notice.

# **Product Features**

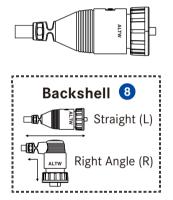
#### **∠** Receptacle



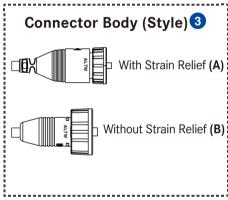




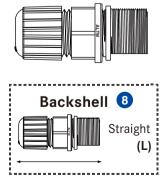
#### □ Overmolded with Cable



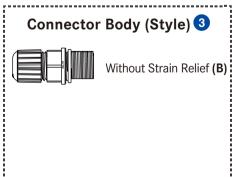




#### □ Field Installable

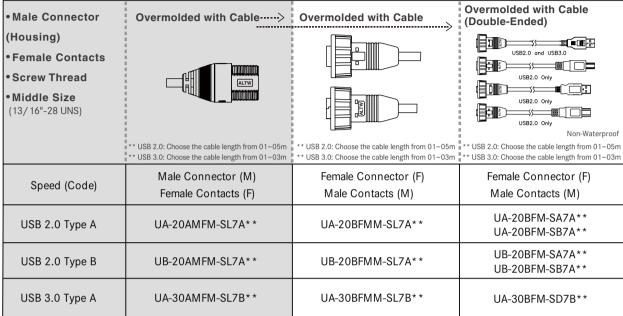






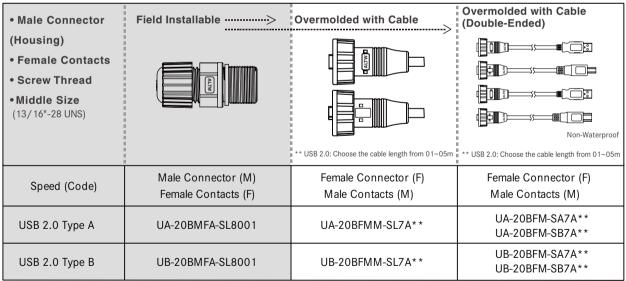
# **Find Our Standard Products**

#### 



Refer to P4-4 for ordering information.

#### ∨ IJSB > In-line



<sup>\*</sup> Refer to P4-4 for ordering information.

<sup>\*</sup> Design and specification are subject to change without notice.

# USB Connector I Find Our Standard Products USB

In-line I Receptacle and Mating Pair 2 Points Lock Bayonet I Screw Thread Middle Size

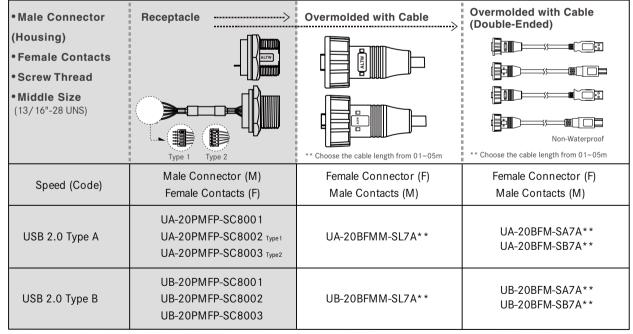
# IP 67.68 9

#### 

• Male Connector (Housing)	Overmolded with Cable> (Double-Ended)	Overmolded with Cable (Double-Ended)	Field Installable
• Female Contacts			
• Screw Thread			
• Middle Size (13/16"-28 UNS)	USB2.0 and USB3.0	USB2.0 and USB3.0	
	** USB 2.0: Choose the cable length from 01~05m ** USB 3.0: Choose the cable length from 01~03m		
Speed (Code)	Male Connector (M)	Female Connector (F)	Female Connector (F)
Speed (Code)	Female Contacts (F)	Male Contacts (M)	Male Contacts (M)
USB 2.0 Type A	UA-20AMF-SA7A**	UA-20BFM-SA7A**	-
USB 3.0 Type A	UA-30AMF-SD7B**	UA-30BFM-SD7B**	-

<sup>\*</sup> Refer to P4-4 for ordering information.

#### □ USB > Receptacle and Mating Pair

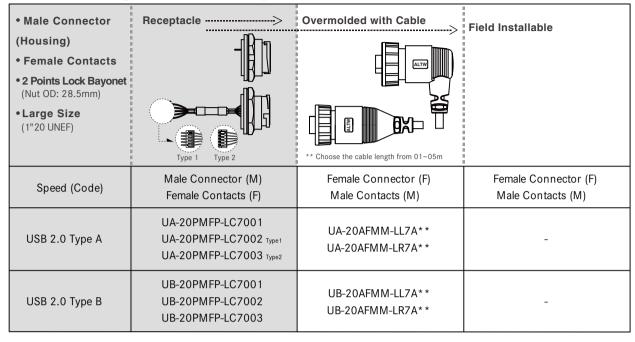


<sup>\*</sup> Refer to P4-4 for ordering information.

<sup>\*</sup> Refer to P4-4 for ordering information.

Receptacle and Mating Pair 2 Points Lock Bayonet Large Size

#### □ USB > Receptacle and Mating Pair



### □ USB > Receptacle and Mating Pair

Male Connector	Receptacle	Overmolded with Cable	Field Installable
(Housing)		ĺ	
• Female Contacts			
• 2 Points Lock Bayonet (Nut OD: 25.4mm)			
• Large Size			
(1"20 UNEF)			
		** Choose the cable length from 01~05m	
0	Male Connector (M)	Female Connector (F)	Female Connector (F)
Speed (Code)	Female Contacts (F)	Male Contacts (M)	Male Contacts (M)
USB 2.0 Type A	UA-20PMFJ-NC7001	UA-20BFMM-NL7A**	-

# USB Connector I Find Our Standard Products USB

Receptacle with Overmolded Cable and Mating Pair 2 Points Lock Bayonet Large Size



### □ USB > Receptacle with Overmolded Cable and Mating Pair

<ul><li>Male Connector</li><li>(Housing)</li><li>Female Contacts</li><li>Screw Thread</li></ul>	Receptacle with Cable> (Double-Ended)	······>	Overmolded with Cable (Double-Ended)
• 2 Points Lock Bayonet (Nut OD: 28.5mm) • Large Size (1"20 UNEF)	Non-Waterproof  ** USB 3.0: Choose the cable length from 100~300mm		*** USB 3.0: Choose the cable length from 01~03m
Speed (Code)	Male Connector (M)	Female Connector (F)	Female Connector (F)
	Female Contacts (F)	Male Contacts (M)	Male Contacts (M)
USB 3.0 Type A	UA-30PMF-LD7B**	UA-30AFMM-LL7BXX	UA-30BFM-SD7B**
	UA-30PMF-SD7B**	UA-30BFMM-SL7BXX	UA-30AFM-LD7A**

<sup>\*</sup> Refer to P4-4 for ordering information.

<sup>\*</sup> Refer to P4-4 for ordering information.

In-line I Receptacle and Mating Pair Screw Thread Standard Size

#### → Mini USB > In-line

Male Connector	Overmolded with Cable>	Overmolded with Cable	Field Installable
(Housing) • Female Contacts			
Screw Thread			
• Standard Size (5/8"-27 UNS)	~-++++++++++++++++++++++++++++++++++++		
	** Choose the cable length from 01~04m	** Choose the cable length from 01~04m	
Speed (Code)	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
Mini USB 2.0 Type B	NUB-20AMFM-SL7A**	NUB-20AFMM-SL7A**	-

### → Mini USB > In-line

• Male Connector (Housing) • Female Contacts • Screw Thread • Standard Size (5/8"-27 UNS)	Field Installable	Overmolded with Cable	Field Installable
	** Choose the cable length from 01~04m	** Choose the cable length from 01~04m	
Speed (Code)	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
Mini USB 2.0 Type B	NUB-20AMFM-SL7A**	NUB-20AFMM-SL7A**	-

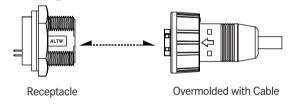
Male Connector	Receptacle	Overmolded with Cable	Field Installable
(Housing) • Female Contacts • Screw Thread • Standard Size (5/8"-27 UNS)	- Raine	** Choose the cable length from 01~04m	
Speed (Code)	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
Mini USB 2.0 Type B	NUB-20PMFP-SC7001 NUB-20PMFR-SC7001	NUB-20AFMM-SL7A**	-

# **IEEE 1394 Connector**

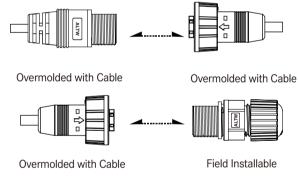


# **Range Overview**









#### △ Accessories

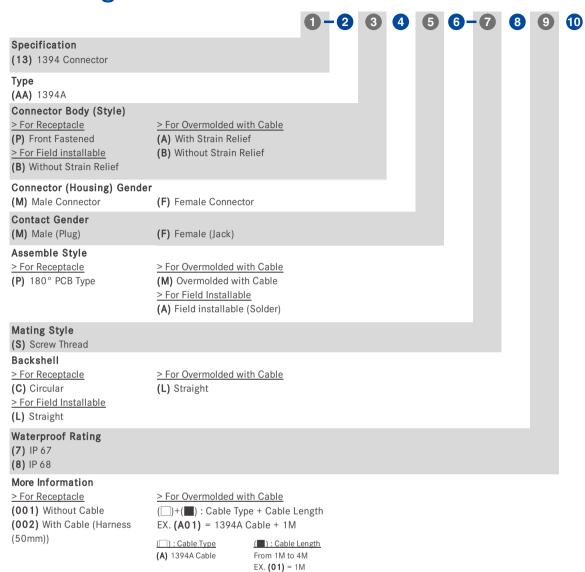


# **Specification**

Identifications	IEEE 1394
Description	Receptacle Overmolded with Cable Field Installable
Current Rating / Data	1A
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing) : PBT UL94V-0
Waterproof Rating	IP67~68
Temperature Range	Receptacle: -20 ° C ~80 ° C  Overmolded with Cable: -20 ° C ~80 ° C  Field Installable: -20 ° C ~80 ° C
Contact Resistance	$\leq$ 30m $\Omega$ Max
Insulation Resistance	$\geq 100 M\Omega$ at DC500V
Durability	500 cycles
Breakdown Voltage	≥ AC 500V / 1 minute
More to know	Standard Cable Length: 01~04M

<sup>\*</sup> Design and specification are subject to change without notice.

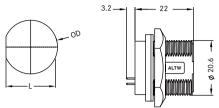
# **Ordering Information**



# **Physical Dimension**

### **∠** Receptacle

Panel Cut-Out Connector Dimension

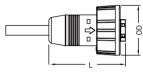


Type Dimension	L	OD
Connector Gender	М	ale
IEEE 1394	19.4	20.8

<sup>\*</sup> Maximum Panel Thickness: 4mm

Dimensions are shown in millimeters

#### □ Overmolded with Cable

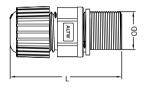


١	L ———
with Strain Relief	/ Straight

Dimension Type	l	-	OI	
Connector Gender	Female	Male	Female	Male
IEEE 1394	42.6	55.0	25.4	20.6

Dimensions are shown in millimeters

#### **∠** Field Installable

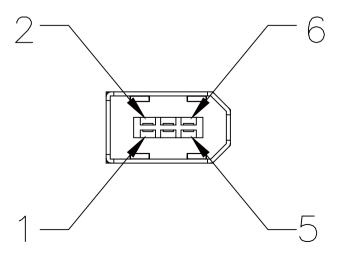


without Strain Relief / Straight

Type Dimension	L		Ol	D
Connector Gender	Female	Male	Female	Male
IEEE 1394	-	56.0	-	20.6

Dimensions are shown in millimeters

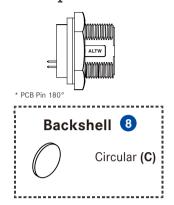
# **Contact Configuration**



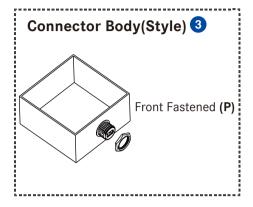
<sup>\*</sup> Design and specification are subject to change without notice.

## **Product Features**

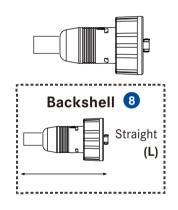
#### **∠** Receptacle



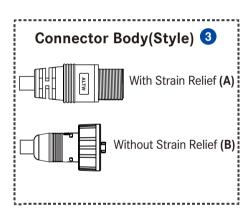




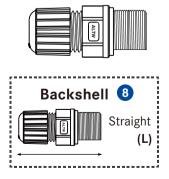
#### □ Overmolded with Cable



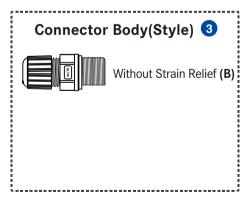




#### → Field Installable







# **Find Our Standard Products**

#### ☑ In-line

Male Connector     (Housing)     Female Contacts     Screw Thread	Overmolded with Cable>	Overmolded with Cable	Field Installable
	** Choose the cable length from 01~04m	** Choose the cable length from 01~04m	
Code	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
IEEE 1394 A Type (13)	13-AAAMFM-SL7A**	13-AABFMM-SL7A**	-

#### ☑ In-line

Female Connector (Housing)     Male Contacts     Screw Thread	Overmolded with Cable>  *** Choose the cable length from 01~04m	Overmolded with Cable  ** Choose the cable length from 01~04m	Field Installable
Code	Female Connector (F) Male Contacts (M)	Male Connector (M) Female Contacts (F)	Male Connector (M) Female Contacts (F)
IEEE 1394 A Type (13)	13-AABFMM-SL7A**	13-AAAMFM-SL7A**	13-AABMFA-SL8001

## ightharpoonup Receptacle and Mating Pair

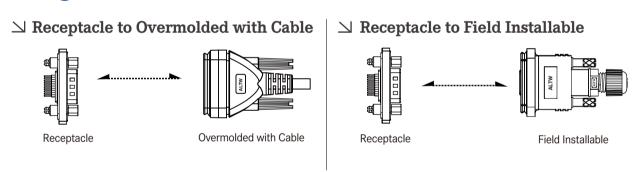
Male Connector     (Housing)     Female Contacts     Screw Thread	Receptacle		Field Installable
	I	** Choose the cable length from 01~04m	1
Code	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	Female Connector (F) Male Contacts (M)
IEEE 1394 A Type (13)	13-AAPMFP-SC8001	13-AABFMM-SL7A**	-

<sup>\*</sup> Design and specification are subject to change without notice.

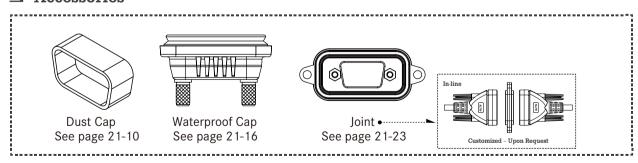
# **D-Sub Connector**



# **Range Overview**



#### △ Accessories

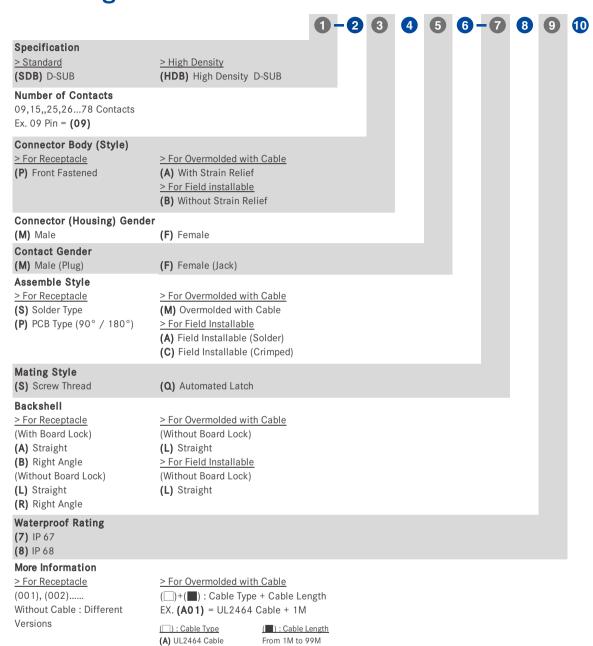


# **Specification**

Identifications	Standard D-Sub Connector High Density D-Sub Connector
Description	Receptacle Overmolded with Cable Field Installable
Current Rating / Data	Standard D-Sub : 5A High Density D-Sub : 2A
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): Nylon 9T or PBT, UL Recognized Shell: Steel, Nickel Plated
Waterproof Rating	Receptacle: IP68 Overmolded with Cable: IP67 Field Installable: IP67
Temperature Range	Receptacle: -20°C~105°C  Overmolded with Cable: -20°C~80°C  Field Installable: -20°C~105°C
Contact Resistance	$\leq 20 m\Omega$
Insulation Resistance	$\geq 500 \text{m}\Omega$ at DC500V
Durability	500 cycles
Breakdown Voltage	≥ AC500V / 1 minute
More to know	Standard Cable Length: 01~99M

<sup>\*</sup> Design and specification are subject to change without notice.

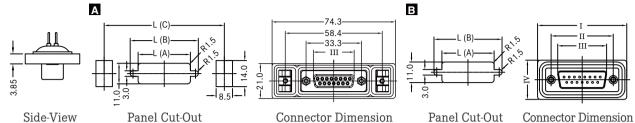
# **Ordering Information**



EX. (01) = 1M

# **Physical Dimension**

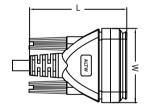
### **∠** Receptacle



Current Rat	ting	Dimension	Туре	L (A)	L (B)	L (C )	I	II	I	II	IV
Connector	Current Rating	Number of Contacts		Female	/ Male		Female	Male	Female	Male	Female / Male
		9Pins	В	20.0	28.2	-	39.4	25.0	16.33	16.92	21.0
		15Pins	Α	28.0	36.5	58.4	-	-	24.66	25.25	-
Standard	5A	TOPINS	В	28.0	36.5	-	47.8	33.3	24.66	25.25	21.0
D-SUB	JA I	25Pins	В	41.5	51.0	-	64.5	47.04	38.38	38.96	21.0
		37Pins	В	57.9	67.8	-	78.4	63.5	54.8	55.4	21.3
		50Pins	В	55.5	65.0	-	75.9	61.1	52.25	52.81	23.9
		15Pins	В	20.2	28.2	-	39.4	25.0	16.33	16.92	21.0
		26Pins	Α	28.0	36.5	58.4	-	-	24.66	25.25	-
High Density		2011115	В	28.0	36.5	-	47.8	33.3	24.66	25.25	21.0
D-SUB	44Pins	В	41.5	51.0	-	64.5	47.04	38.38	38.96	21.0	
		62Pins	В	57.9	67.8	-	78.4	63.5	54.8	55.4	21.3
		78Pins	В	55.5	65.0	-	75.9	61.1	52.25	52.81	23.9

<sup>\*</sup> Maximum Panel Thickness: 2mm

#### **∠** Overmolded with Cable

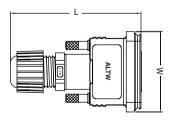


With Strain Relief / Straight

Current Rat	ting	Dimension	L	W
Connector	Current Rating	Number of Contacts	Female / Male	Female / Male
		9	55.9	42.4
Standard	5.4	15	53.5	50.6
Standard 5A D-SUB	JA	25	60.0	64.5
		37	69.3	81.1
		50	71.8	79.3
		15	55.9	42.4
III:-le Deseite.		26	53.5	50.6
High Density D-SUB	2A	44	60.0	64.5
		62	69.3	81.1
		78	71.8	79.3

Dimensions are shown in millimeters

#### ☑ Field Installable



Without Strain Relief / Straight

Dimension Current Rating			L	W
Connector	Current Rating	Number of Contacts	Female / Male	Female / Male
		9	66.8	42.8
Standard	5A	15	63.0	50.7
D-SUB	34		81.6	50.6
		25	91.9	64.4
		15	66.8	42.8
High Density D-SUB	2A	24	63.0	50.7
	24	26	81.6	50.6
		44	91.9	64.4

Dimensions are shown in millimeters

<sup>\*</sup> Design and specification are subject to change without notice.

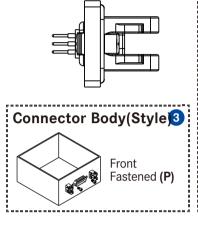
# **Contact Configuration**

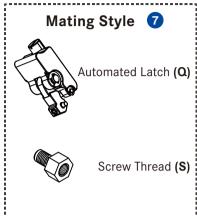
	Standard D-SUB (5A)	High Density D-SUB (2A)
9Pin ( <b>09</b> )	<b>::::</b> R C F	
15Pin ( <b>15</b> )	<b>(:::::::)</b>  R C F	<b>(23332)</b> 
25Pin ( <b>25</b> )	<b>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</b>	
26Pin ( <b>26</b> )		(WWW.)
37Pin ( <b>37</b> )	<b></b> R   C	
44Pin <b>(44)</b>		<b>(************</b> 
50Pin ( <b>50</b> )	(::::::)  R C	
62Pin ( <b>62</b> )		R C
78Pin ( <b>78</b> )		RC

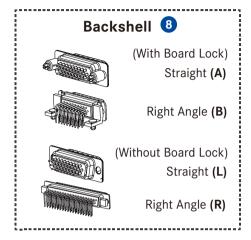
_	A (HDB) A (SDB)		0
	er of Contac ntacts (02)	ts:	2
Male <b>(M</b>	ctor (Housin		: 4
	t Gender: ) or Female(	F)	
<ul><li>Solde</li></ul>	r (S) er Contact		6
1111			
• PCB T - 90°		180° PCB	
• Crimp	type (C)		
		·	

# **Product Features**

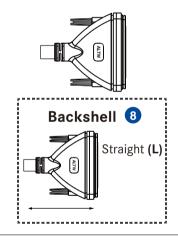
#### □ Receptacle



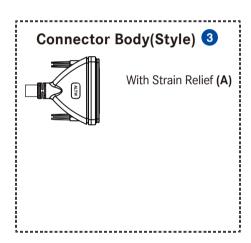




#### □ Overmolded with Cable



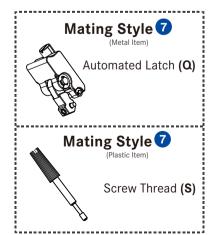


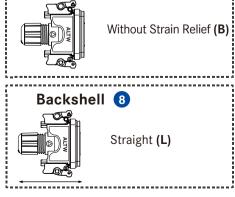


#### **∠** Field Installable









Connector Body(Style) 3

<sup>\*</sup> Design and specification are subject to change without notice.

# IP 67.68 9

# **Find Our Standard Products**

### ightharpoonup Receptacle and Mating Pair

Male Connector     (Housing)     Male Contacts     Screw Thread     Plastic Connectors		Receptacle	Overmolded with Cable  **Choose the cable length: 01-99m	Field Installable
Current Rating (Code)	Contacts 2	Male Connector (M) Male Contacts (M)	Female Connector (F) Female Contacts (F)	Female Connector (F) Female Contacts (F)
Standard D-SUB 5A (SDB)	09,15,25, 37,50	SDB- 2 PMMP-SA8001 SDB- 2 PMMP-SB8001 SDB- 2 PMMP-SL8001 SDB- 2 PMMP-SR8001 SDB- 2 PMMS-SL8001	SDB-2AFFM-SL7A**	SDB-2 BFFA-SL7001 SDB-2 BFFC-SL7001
High Density D-SUB 2A (HDB)	15,26,44, 62,78	HDB- 2 PMMP-SA8001 HDB- 2 PMMP-SB8001 HDB- 2 PMMP-SL8001 HDB- 2 PMMP-SR8001 HDB- 2 PMMS-SL8001	HDB-2 AFFM-SL7A**	HDB- 2 BFFA-SL7001
		- PCB 180° with Board Lock: 5A (SDB) 09 / 15 / 25 / 37 pins. 2A (HDB)15 / 26 / 44 / 62 pins PCB 90° with Board Lock: 5A (SDB) 09 / 15 pins. 2A (HDB)15 / 26 pins Solder Type: 5A (SDB) 09 / 15 / 25 / 37 / 50 pins. 2A (HDB)15 / 26 / 44 / 62 / 78 pins.	-	- Crimp Pin: 5A (SDB) 09 / 15 / 25 pins Solder Pin: 5A (SDB) 09 / 15 / 25 pins. 2A (HDB) 15 / 26 / 44 pins.

## ightharpoonup Receptacle and Mating Pair

Female Connector     (Housing)     Female Contacts     Screw Thread     Plastic Connectors		Receptacle	Overmolded with Cable  **Choose the cable length: 01-99m	Field Installable
Current Rating (Code)	Contacts 2	Female Connector (F) Female Contacts (F)	Male Connector (M) Male Contacts (M)	Male Connector (M) Male Contacts (M)
Standard D-SUB 5A (SDB)	09,15,25, 37,50	SDB- 2 PFFP-SA8001 SDB- 2 PFFP-SB8001 SDB- 2 PFFP-SL8001 SDB- 2 PFFP-SR8001 SDB- 2 PFFS-SL8001	SDB- 2 AMMM-SL7A**	SDB- 2 BMMA-SL7001 SDB- 2 BMMC-SL7001
High Density D-SUB 2A (HDB)	15,26,44, 62,78	HDB- 2 PFFP-SA8001 HDB- 2 PFFP-SB8001 HDB- 2 PFFP-SL8001 HDB- 2 PFFP-SR8001 HDB- 2 PFFS-SL8001	HDB-2 AMMM-SL7A**	HDB- 2BMMA-SL7001
		- PCB 180° with Board Lock: 5A (SDB) 09 / 15 / 25 / 37 pins. 2A (HDB)15 / 26 / 44 / 62 pins PCB 90° with Board Lock: 5A (SDB) 09 / 15 pins. 2A (HDB)15 / 26 pins Solder Type: 5A (SDB) 09 / 15 / 25 / 37 / 50 pins. 2A (HDB)15 / 26 / 44 / 62 / 78 pins.	-	- Crimp Pin: 5A (SDB) 09 / 15 / 25 pins Solder Pin: 5A (SDB) 09 / 15 / 25 pins. 2A (HDB) 15 / 26 / 44 pins.

<sup>\*</sup> Design and specification are subject to change without notice.

## □ Receptacle and Mating Pair

Male Connector     (Housing)     Male Contacts     Automated Latch     Metal Connectors		Receptacle	Overmolded with Cable	Field Installable
Current Rating (Code)	Contacts	Male Connector (M) Male Contacts (M)	Female Connector (F) Female Contacts (F)	Female Connector (F) Female Contacts (F)
Standard D-SUB 5A (SDB)	15	SDB-15PMMP-QA8001 SDB-15PMMP-QB8001 SDB-15PMMP-QL8001 SDB-15PMMS-QL8001	-	SDB-15BFFA-QL7001
High Density D-SUB 2A (HDB)	26	HDB-26PMMP-QA8001 HDB-26PMMP-QB8001 HDB-26PMMP-QL8001 HDB-26PMMS-QL8001	-	HDB-26BFFA-QL7001

## $\,\,\,\,\,\,\,\,\,$ Receptacle and Mating Pair

Female Connector (Housing) Female Contacts Automated Latch Metal Connectors		Receptacle	Overmolded with Cable	Field Installable
Current Rating (Code)	Contacts	Female Connector (F) Female Contacts (F)	Male Connector (M) Male Contacts (M)	Male Connector (M) Male Contacts (M)
Standard D-SUB 5A (SDB)	15	SDB-15PFFP-QA8001 SDB-15PFFP-QB8001 SDB-15PFFP-QL8001 SDB-15PFFS-QL8001	-	SDB-15BMMA-QL7001
High Density D-SUB 2A (HDB)	26	HDB-26PFFP-QA8001 HDB-26PFFP-QB8001 HDB-26PFFP-QL8001 HDB-26PFFS-QL8001	-	HDB-26BMMA-QL7001

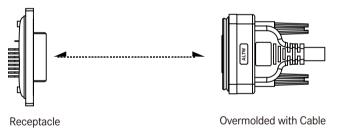
Memo	
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### **DVI Connector**

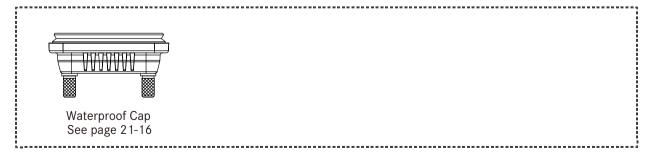


# **Range Overview**

### 



#### □ Accessories

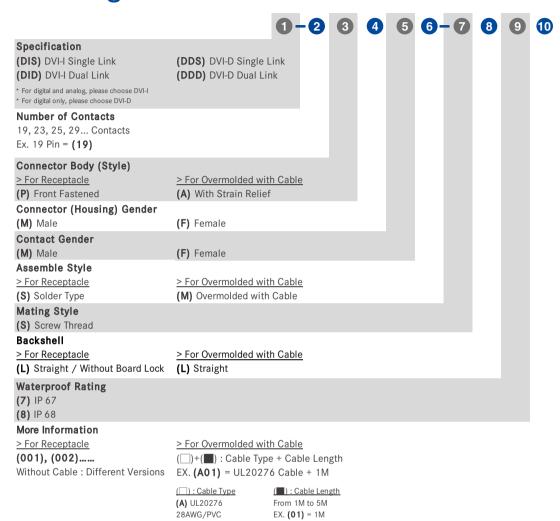


# **Specification**

Identifications	DVI-D Single Link (DDS): Digital DVI-D Dual Link (DDD): Digital DVI-I Single Link (DIS): Digital and Analog DVI-I Dual Link (DID): Digital and Analog
Description	Receptacle Overmolded with Cable
Current Rating / Data	1.5A
Material	Contacts: Cooper Alloy, Gold Plated Connector Body (Housing): Nylon + GF, UL Recognized Shell: Steel, Nickel Plated
Waterproof Rating	Receptacle: IP68 Overmolded with Cable: IP67
Temperature Range	Receptacle: -20°C~80°C  Overmolded with Cable: -20°C~80°C
Contact Resistance	$\leq 20 m\Omega$
Insulation Resistance	$\geq 1000 m\Omega$ at DC500V
Durability	100 cycles
Breakdown Voltage	≥ AC 500V / 1 minute
More to know	Standard Cable Length: 01~05M

<sup>\*</sup> Design and specification are subject to change without notice.

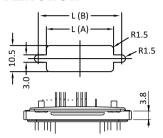
### **Ordering Information**



# **Physical Dimension**

#### **∠** Receptacle

Panel Cut-Out

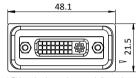


Туре	Dimension	L(A)	L(B)	
Connec	tor Gender	Male		
DVI-D Si	ngle Link(DDS)	27.00	33.50	
DVI-D D	ual Link(DDD)	27.00	33.50	
DVI-I Sir	ngle Link(DIS)	27.00	33.50	
DVI-I D	ual Link(DID)	27.00	33.50	

<sup>\*</sup> Maximum Panel Thickness: 2mm

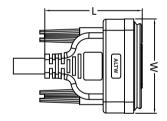
Dimensions are shown in millimeters

#### Connector Dimension



and the actual product may differ

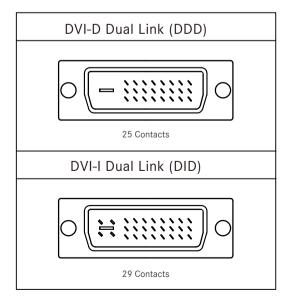
#### □ Overmolded with Cable

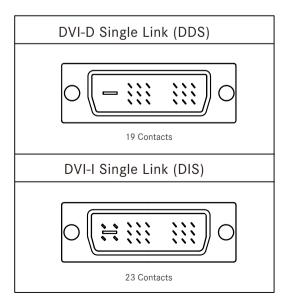


Dimension Type	L	W
Connector Gender	M	ale
DVI-D Single Link(DDS)	52.60	50.90
DVI-D Dual Link(DDD)	52.60	50.90
DVI-I Single Link(DIS)	52.60	50.90
DVI-I Dual Link(DID)	52.60	50.90

Dimensions are shown in millimeters

# **Contact Configuration**

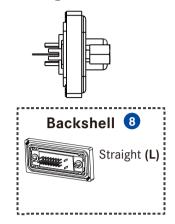




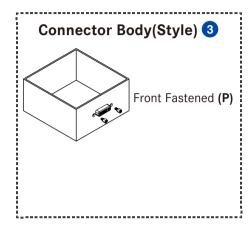
<sup>\*</sup> Design and specification are subject to change without notice.

### **Product Features**

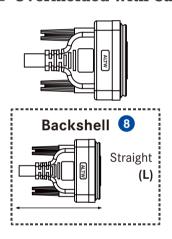
### **∠** Receptacle



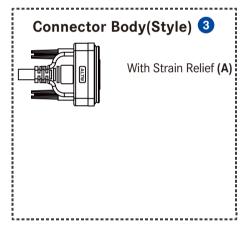




#### □ Overmolded with Cable

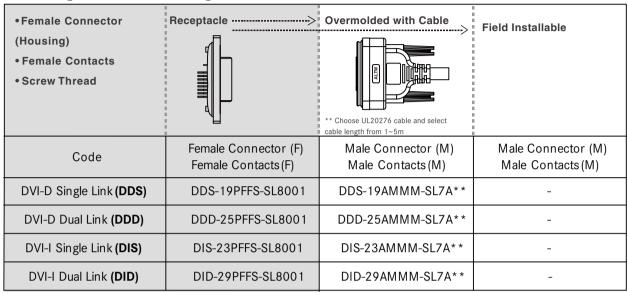






### **Find Our Standard Products**

#### □ Receptacle and Mating Pair



<sup>\*</sup> For digital and analog, please choose DVI-I

<sup>\*</sup> For digital only, please choose DVI-D

Receptacle I Unmated & Mated Overmolded with Cable I Mated Field Installable I Mated

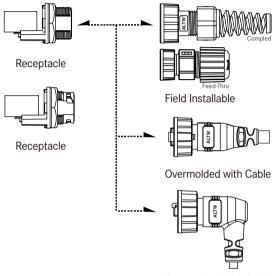
# **RJ Connector**





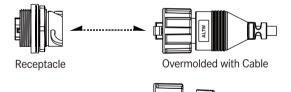
# Range Overview

### □ Receptacle and Mating Pair (Middle Size 13/16"-28UNS)



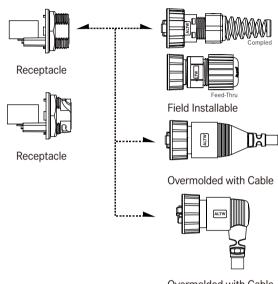
Overmolded with Cable

#### □ Receptacle and Mating Pair (ODVA)



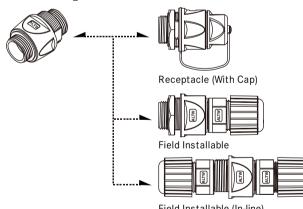


### □ Receptacle and Mating Pair (Large Size 1"20-UNEF)



Overmolded with Cable

#### I Adaptor



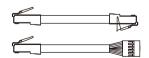
Field Installable (In-line)

#### □ Accessories





Waterproof Cap See page 21-17



Patch Cable (Double-ended) See page 21-24

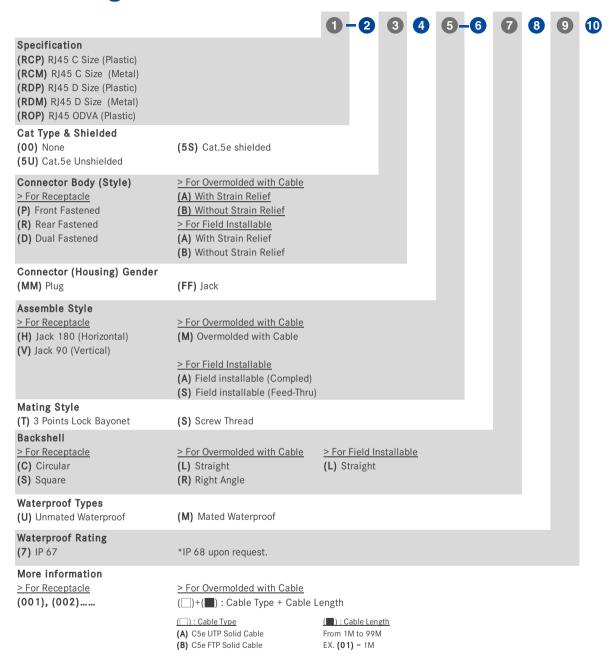
Design and specification are subject to change without notice.

Receptacle I Unmated & Mated Overmolded with Cable I Mated Field Installable I Mated

# **Specification**

Identifications	Middle Size: 13/16"-28 UNS (Cat. 5e) Large Size: 1"-20 UNS (Cat. 5e) ODVA (Cat. 5e)
Description	Receptacle Receptacle With Cable Overmolded with Cable Field Installable
Current Rating / Data	100 Base, 100 Base T and 1000 Base T Networks Cat 5E per TIA or EIA 568B Class D per ISO / IEC 11801
Material	Connector Body: -Housing: Polyester, UL94V-0, UV Resistant -Fastening Nut (Panel Side): Polyester UL94V-0,UV Resistant -Mating Lock Nut: Polyester, UL94V-0,UV Resistant RJ45 Jack and Plug Contacts: Phosphor Bronze, Gold Plated Cable Termination: Flame Protection per UL94V-0,UV Resistant
Waterproof Rating	IP67
Temperature Range	Receptacle: -40 ° C~105 ° C  Overmolded with Cable: -20 ° C~80 ° C
Contact Resistance	$\leq 20 m\Omega$
Insulation Resistance	$\geq 500 \text{m}\Omega$ at DC500V
Durability	750 cycles
Breakdown Voltage	≥ AC1000V / 1 minute
More to know	Thermal shock: -20°C~80°C 5cycls Salt Spray Corrosion: 48H POE: 60W /2A Standard Cable Length: 01-99M

### **Ordering Information**

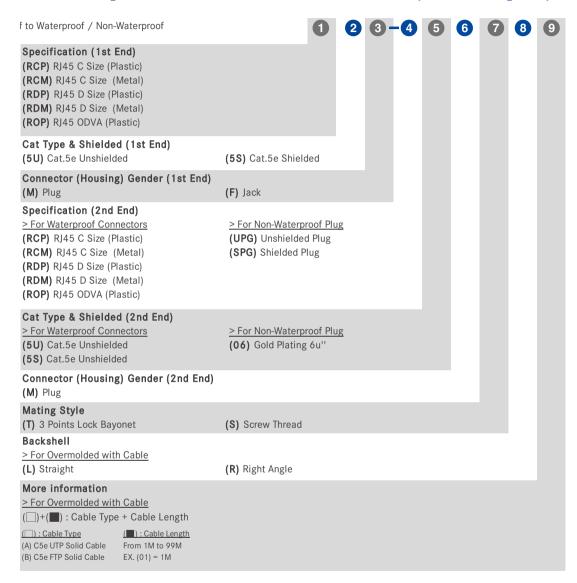


<sup>\*</sup> Design and specification are subject to change without notice.

Receptacle I Unmated & Mated Overmolded with Cable I Mated Field Installable I Mated

# **Ordering Information | Double-ended**

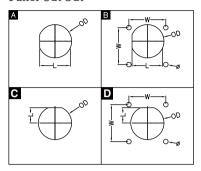
ALTW waterproof connector to ALTW waterproof connector ALTW waterproof connector to Standard RJ connector (None Waterproof)



# **Physical Dimension**

### **∠** Receptacle

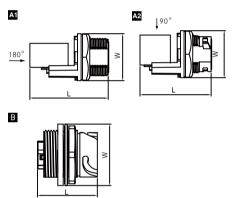
Panel Cut-Out



Type	Туре	L/W	OD	Ø
Connector Gender (Housing)		Female		
Middle Size	Α	19.4	20.8	-
( 13/16"-28 UNS)	В	19.4/24.4	20.8	3.1
Large Size	Α	23.6	25.6	-
(1"20 UNEF)	В	23.6/24.4	25.6	3.1
22111	С	12.4	27.1	-
ODVA	D	12.4/25.9	27.1	M3.0*0.5

Dimensions are shown in millimeters

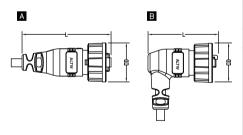
#### Connector Dimension



Type	Туре	Shape	L	W
Connector Gender (Housing)			Female	
	A1	Circle	44.0	26.0
Middle Size	AI	Square	44.0	32.0
(13/16"-28 UNS)	A2	Circle	39.9	26.0
		Square	39.9	32.0
	A1	Circle	44.0	32.0
Large Size		Square	44.0	32.0
(1"20 UNEF)	A2	Circle	39.9	32.0
	AZ	Square	39.9	52.0
ODVA	В	Circle	33.2	34.0
	ם	Square	33.2	36.0

<sup>\*</sup> Choose backshell: Circular (C) or Square Flange (S) I Dimensions are shown in millimeters

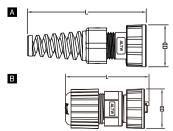
#### ○ Overmolded with Cable



Type	Туре	L		L OD	
Connector Gender (Housing)		Female	Male	Female	Male
Middle Size (13/16"-28 UNS)	Α	-	58.0	-	25.4
	В	-	45.0	_	25.4
Large Size (1"20 UNEF)	Α	-	73.6	-	28.8
	В	-	53.4	-	28.8
ODVA	Α	-	79.3	-	31.5

Dimensions are shown in millimeters

#### **∠** Field Installable



Type	Туре	L		L OD	
Connector Gender (Housing)		Female	Male	Female	Male
Middle Size (13/16"-28 UNS)	Α	ı	72.0	ı	25.4
	В	-	40.7	-	25.4
Large Size (1"20 UNEF)	Α	-	76.7	-	25.4
	В	-	59.7	-	32.0
ODVA	A	_	77.6	-	31.5

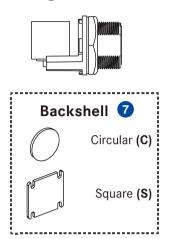
<sup>\*</sup> Design and specification are subject to change without notice.

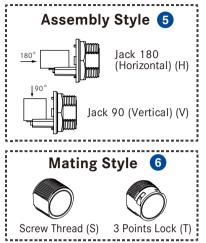
Dimensions are shown in millimeters

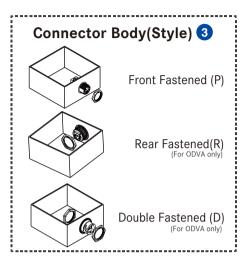
Receptacle I Unmated & Mated Overmolded with Cable I Mated Field Installable I Mated

### **Product Features**

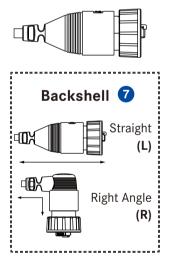
### **∠** Receptacle

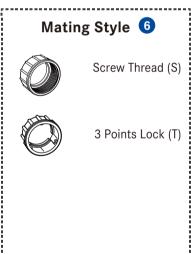


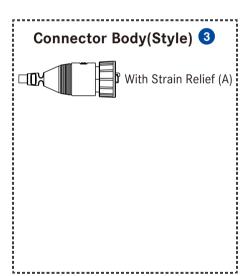




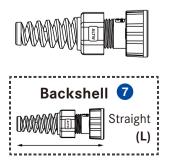
#### □ Overmolded with Cable



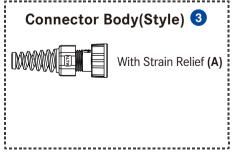




#### ∑ Field Installable





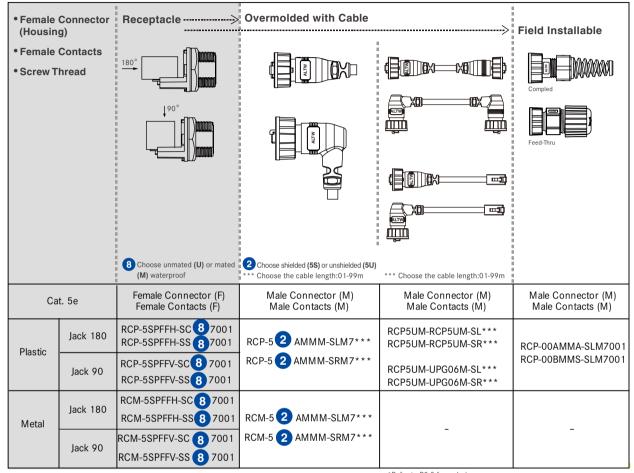


<sup>\*</sup> Refer to P8-4 for Ordering Information

Receptacle and Mating Pair Screw Thread

### **Find Our Standard Products**

#### Middle Size 13/16"-28 UNS > Receptacle and Mating Pair



<sup>\*</sup>Refer to P8-5 for ordering.

<sup>\*</sup> Design and specification are subject to change without notice.

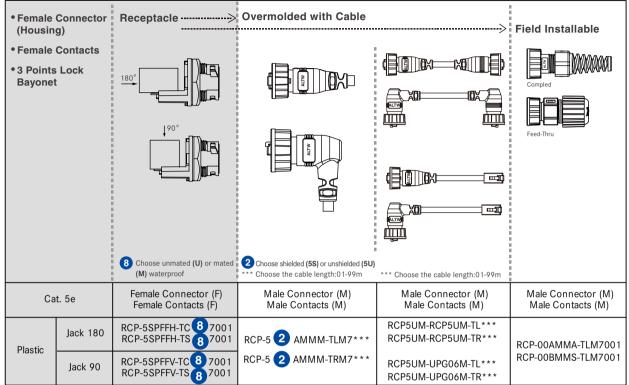
Receptacle and Mating Pair 3 Points Lock Bayonet

IP 67 9

Receptacle | Unmated & Mated
Overmolded with Cable | Mated

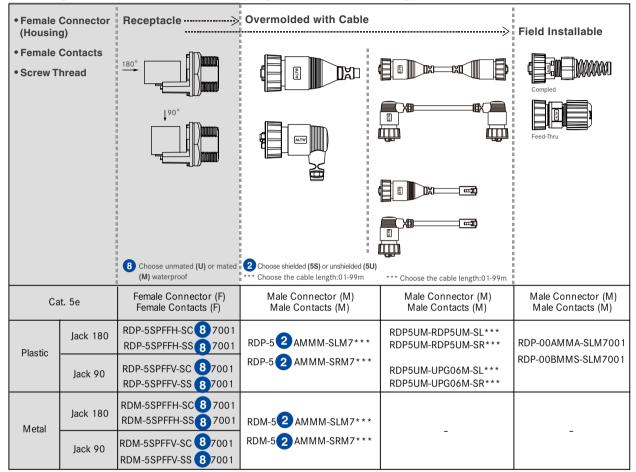
Field Installable I Mated

#### Middle Size 13/16"-28 UNS > Receptacle and Mating Pair



<sup>\*</sup>Refer to P8-5 for ordering information.

#### □ Large Size 1"-20 UNEF > Receptacle and Mating Pair

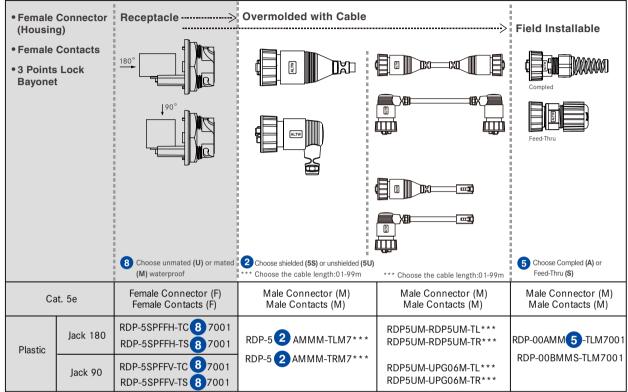


<sup>\*</sup>Refer to P8-5 for ordering information.

<sup>\*</sup> Design and specification are subject to change without notice.

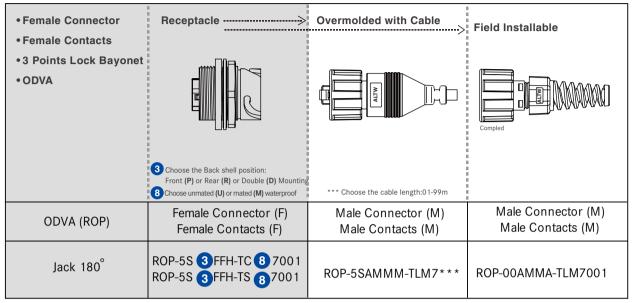
Field Installable I Mated

#### □ Large Size 1"-20 UNEF > Receptacle and Mating Pair

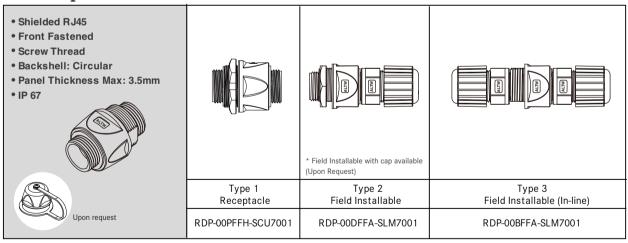


\*Refer to P8-5 for ordering information.

#### □ ODVA > Receptacle and Mating Pair

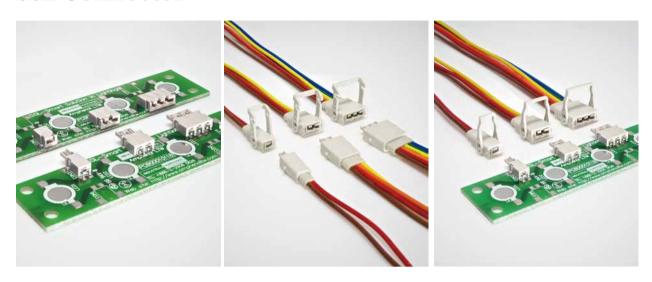


### **∠** I Adaptor



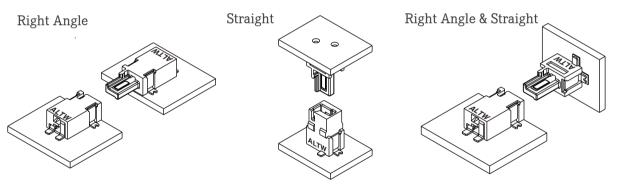
<sup>\*</sup> Design and specification are subject to change without notice.

### **SSL Connector**

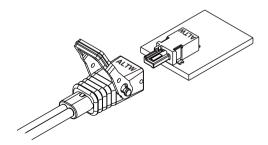


# **Range Overview**

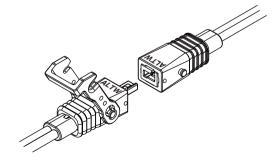
#### **∠** PCB Mount to PCB Mount



**∠** PCB Mount to Wire



**∠** Wire to Wire

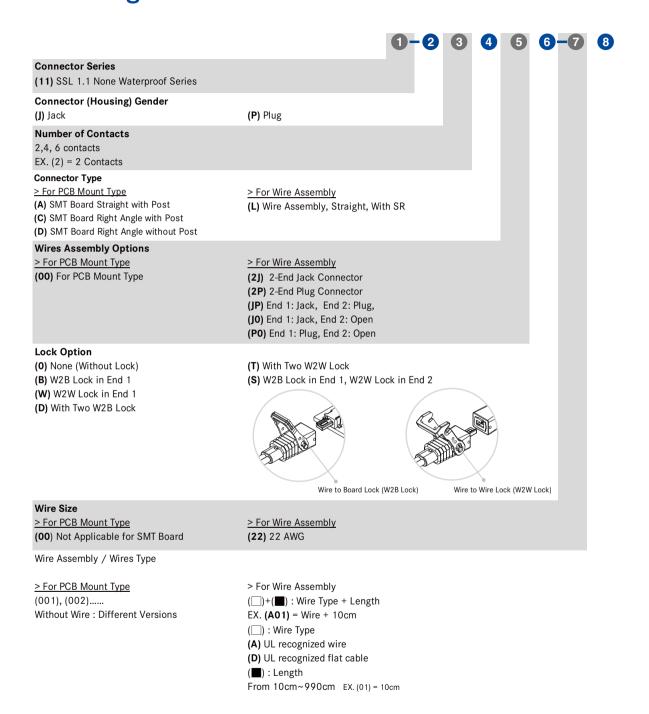


# **Specification**

Identifications	SSL 1.1 DC Connector (PCB Connector & Cable)
Description	PCB to PCB PCB to Wire Wire to Wire
Current Rating / Data	3A per Pin 2, 4 & 6P
Voltage Rating	Max100 VAC / VDC
Material	Contact: Copper Alloy, Tin over Nickel Housing: LCP, UL 94V-0 Rated Hood: Nylon (PA66), UL 94V-0 Rated Lock: Nylon (PA66), UL 94V-0 Rated SR: PP, UL 94V-0 Rated. UL recognized wire & flat cable available
Temperature Range	-40°C ~ +100°C
Contact Resistance	≤ 20mΩ
Insulation Resistance	$\geq 1000 m\Omega$ at 250VDC
Durability	100 cycles
Breakdown Voltage	1200 V AC
More to know	Standard cable length: every 10cm

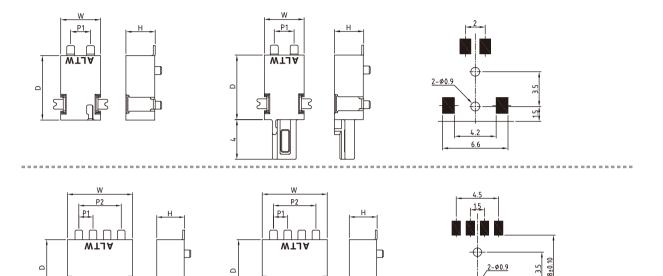
<sup>\*</sup> Design and specification are subject to change without notice.

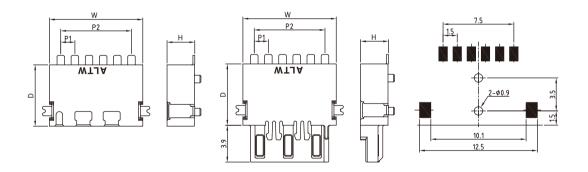
### **Ordering Information**



# **Physical Dimension**

### □ PCB Mount to PCB Mount > Right Angle



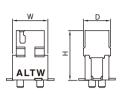


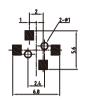
	P1 Pitch	P2 TTL Pitch	D Depth	W Width	H Height
2P	2.0	-	6.5	4.0	3.0
4P	1.5	4.5	6.5	6.9	3.0
6P	1.5	7.5	6.5	9.9	3.0

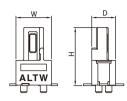
Dimensions are shown in millimeters

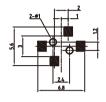
<sup>\*</sup> Design and specification are subject to change without notice.

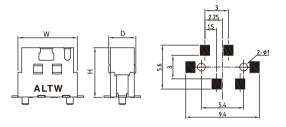
### □ PCB Mount to PCB Mount > Straight

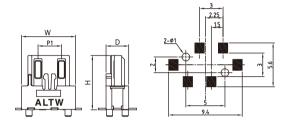


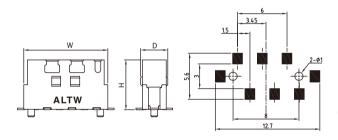


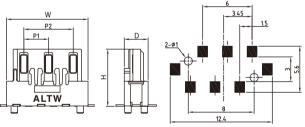








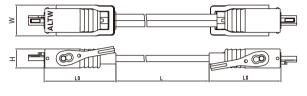




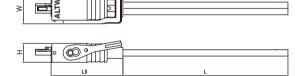
	P1 Pitch	P2 TTL Pitch	D Depth	W Width	H Height
2P	-	-	Jack: 3.3 Plug: 2.9	Jack: 4.3 Plug: 4.3	Jack: 6.0 Plug: 7.0
4P	3.0	-	Jack: 3.3 Plug: 2.9	Jack: 7.2 Plug: 6.9	Jack: 6.0 Plug: 7.0
6P	3.0	6.0	Jack: 3.3 Plug: 2.9	Jack: 10.2 Plug: 9.9	Jack: 6.0 Plug: 7.0

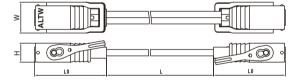
Dimensions are shown in millimeters

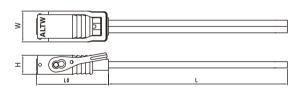
### **∠** Wire Assembly



» ALTW		ALTW
	N.	





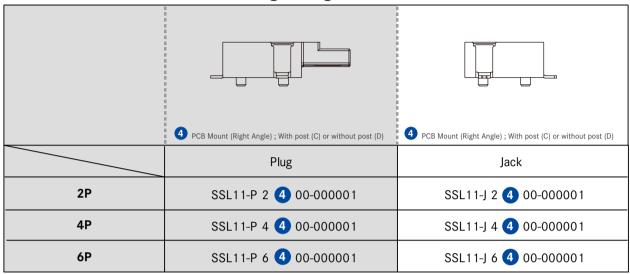


	L0	Н	W	Cable Length (L)
2P	16.2	4.8	7.8	**Wire & flat cable length
4P	16.2	4.8	11.2	available from 10cm to 990cm in multiples of
6P	16.2	4.8	14.2	10cm.

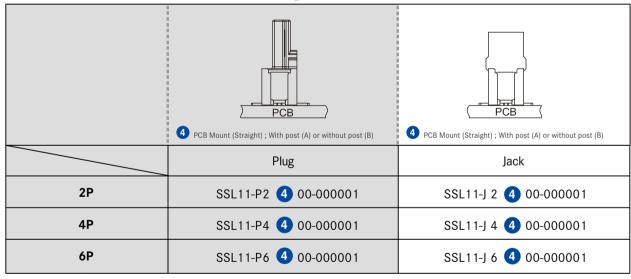
<sup>\*</sup> Design and specification are subject to change without notice.

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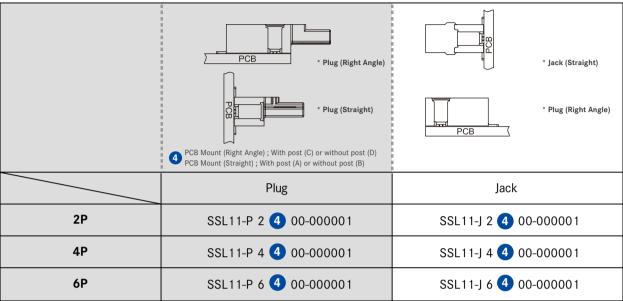
### □ PCB Mount to PCB Mount > Right Angle



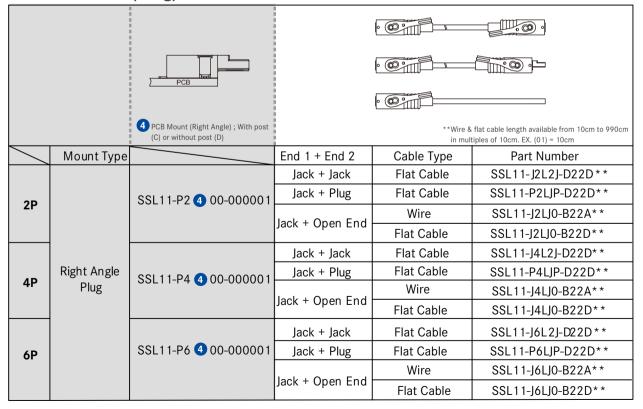
#### □ PCB Mount to PCB Mount > Straight



### □ PCB Mount to PCB Mount > Right Angle & Straight



#### □ PCB Mount (Plug) to Wire

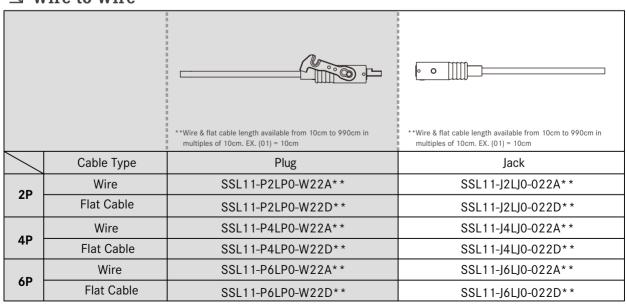


<sup>\*</sup> Design and specification are subject to change without notice.

### → PCB Mount (Jack) to Wire

		()01011) 10 11110			
		PCB			
		4 PCB Mount (Right Angle); With post (C) or without post (D)			**Wire & flat cable length available from 10cm to 990cm in multiples of 10cm. EX. (01) = 10cm
	Mount Type	Jack	End 1 + End 2	Cable Type	Part Number
			Plug + Plug	Flat Cable	SSL11-P2L2P-D22D**
2P		SSL11-J2 4 00-000001	Plug + Jack	Flat Cable	SSL11-P2LJP-D22D**
26				Plug + Open End	Wire
			Flug + Open End	Flat Cable	SSL11-P2LP0-B22D**
			Plug + Plug	Flat Cable	SSL11-P4L2P-D22D**
	D:-l-+ Al-	0014414 0 00 00004	Plug + Jack	Flat Cable	SSL11-P4LJP-D22D**
4P	Right Angle Jack	SSL11-J4 <b>4</b> 00-000001	Plug + Open End	Wire	SSL11-P4LP0-B22A**
	Jack		FI	Flat Cable	SSL11-P4LP0-B22D**
			Plug + Plug	Flat Cable	SSL11-P6L2P-D22D**
4D		SSL11-J6 4 00-00001	Plug + Jack	Flat Cable	SSL11-P6LJP-D22D**
OP	6P   SSL11-J6 4 00-000001		Plug + Open End	Wire	SSL11-P6LP0-B22A**
			Flat Cable	SSL11-P6LP0-B22D**	

#### **∠** Wire to Wire



Memo	
	Scan to visit our website

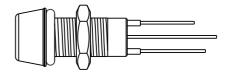


# **LED Indicator**



# **Range Overview**

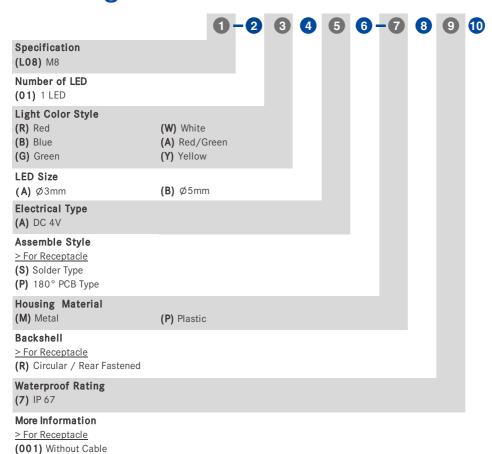
**∠** Receptacle



# **Specification**

Identifications	M8 LED (Plastic or Metal)
Description	Receptacle with LED light
LED Size	Metal LED: Ø3mm, Ø5mm Plastic LED: Ø3mm
Material	Connector Body: Metal: Copper Alloy, Nickel Plated Plastic: PC+ABS
Waterproof Rating	IP67
Temperature Range	Metal: -20°C ~ +105°C Plastic: -20°C ~ +85°C
Operating Voltage	4V
Light Color	Red, Blue, Green, White, Yellow, Red / Green
More to know	Absolute Maximum Ratings at Ta=25°C  - Power Dissipation: 80~120mW Max  - Peak Forward Current: 100mA Max  - Continuous Forward Current: 20~35mA Max  - Lead Soldering Temperature: 260°C for 5 Seconds

# **Ordering Information**



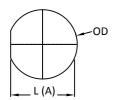
<sup>\*</sup> Design and specification are subject to change without notice.



# **Physical Dimension**

### **∠** Receptacle

Panel Cut-Out

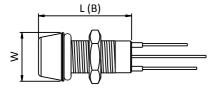


Dimension	L (A)	OD	L (B)	W
L08 -Ø 3.0 (Plastic)	7.1	8.2	21.0	10.5
L08 -Ø3.0 (Metal)	7.1	8.2	20.0	10.5
L08 -Ø 5.0 (Metal)	7.1	8.2	20.0	10.5

<sup>\*</sup> Maximum Panel Thickness: 6.5mm

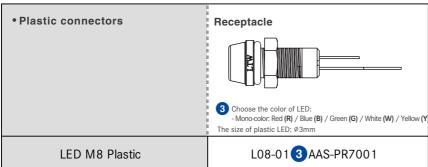
Dimensions are shown in millimeters

Connector Dimension

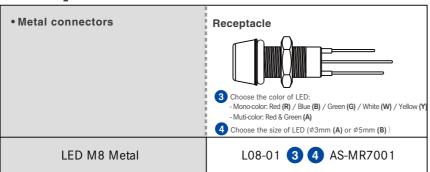


### **Find Our Standard Products**

#### **∠** Receptacle



### **∠** Receptacle



Memo	
	***************************************
	2 3 3 3 3 3
	Scan to visit our website

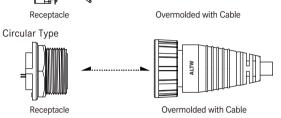


### **HDMI Connector**



# **Range Overview**

Receptacle to Overmolded with Cable
Rectangle Type



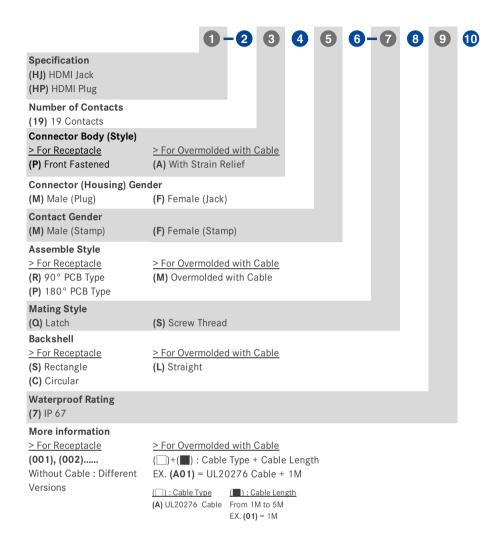
#### △ Accessories



# **Specification**

Identifications	HDMI connector
Description	Receptacle Overmolded with Cable
Current Rating / Data	0.5A
Material	Contacts: Phospor Bronze Connector Body (Housing): PBT Shell: Brass
Waterproof Rating	IP67 (Mated Waterproof)
Temperature Range	Receptacle: -20°C~80°C  Overmolded with Cable: -20°C~80°C
Contact Resistance	$\leq 20 m\Omega$
Insulation Resistance	$\geq 100 \text{m}\Omega$ at DC500V
More to know	Standard Cable Length: 01~05 M

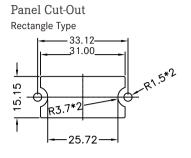
# **Ordering Information**



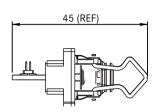
<sup>\*</sup> Design and specification are subject to change without notice.

# **Physical Dimension**

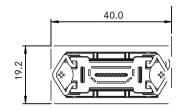
#### **∠** Receptacle

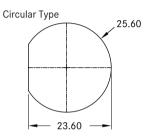


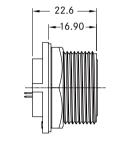


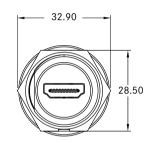


Connector Dimension

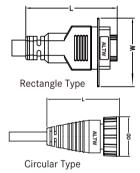








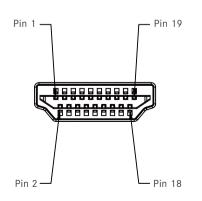
#### ○ Overmolded with Cable

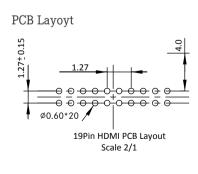


Dimension Current Rating	L	W / OD	
Connector Gender	Male		
Rectangle Type	48.1	32.0	
Circular Type	58.7	32.0	

Dimensions are shown in millimeters

# **Contact Configuration**

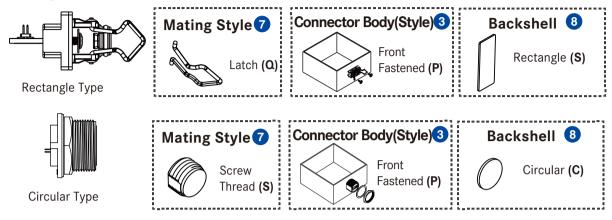




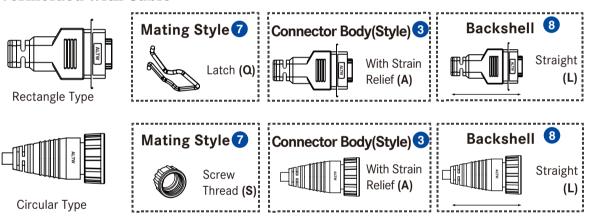
<sup>\*</sup> This only show contact configuration of Jack as your reference.

## **Product Features**

### □ Receptacle

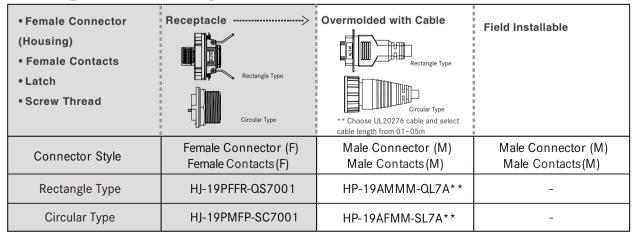


#### ○ Overmolded with Cable



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### □ Receptacle and Mating Pair



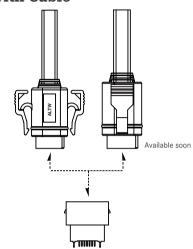
<sup>\*</sup> Design and specification are subject to change without notice.

# **Sata Connector**



# **Range Overview**

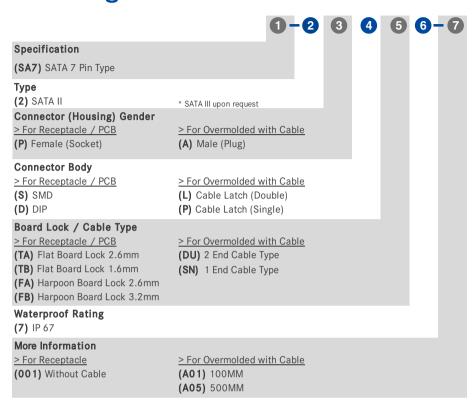
□ Receptacle to Overmolded with Cable



# **Specification**

Identifications	SATA II connector
Description	PCB to Wire
Current Rating	1.5 A
Material	Contacts: Copper Alloy, Gold Plated Connector Body (Housing): LCP / PBT
Waterproof Rating	IP67
Temperature Range	Receptacle: -20°C~80°C  Overmolded with Cable: -20°C~80°C
Contact Resistance	≤ 30mΩ
Insulation Resistance	$\geq 1000 m\Omega$ at DC500V
Durability	500 cycles
More to know	SATA III (upon request)

# **Ordering Information**



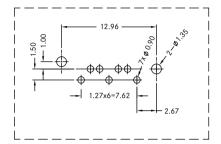
<sup>\*</sup> Design and specification are subject to change without notice.



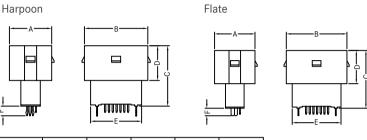
# **Physical Dimension**

## **∠** Receptacle

DIP Layout



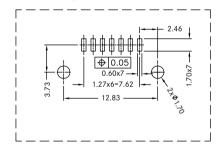
### Board Lock Type



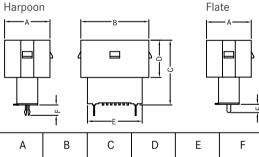
А	В	С	D	E	F
14.0	21.0	21.0 20.0 11.5	16.9	2.6	
14.0	74.0 21.0		11.5	10.9	3.2
14.0	14.0 21.0	21.0 20.0	11.5	16.9	2.6
14.0			11.5		1.6

### **∠** Receptacle

SMT Layout



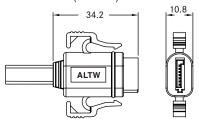
#### Board Lock Type



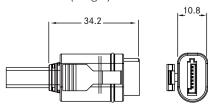
А	В	С	D	Е	F
14.0	21.0	0 20.0 11.5 10	115	1.5 16.9	2.6
14.0	21.0		10.9	3.2	
14.0	14.0 21.0 20.0 11	11.5	16.9	2.6	
14.0   2	21.0	20.0	11.5	10.9	1.6

### ○ Overmolded with Cable

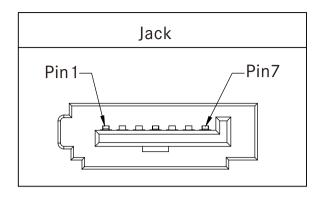
Cable Latch (Double)

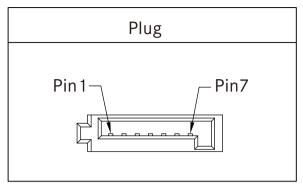


#### Cable Latch (Single)



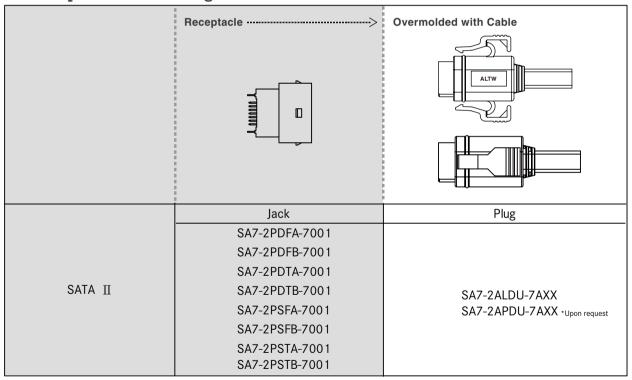
# **Contact Configuration**





# **Find Our Standard Products**

## □ Receptacle and Mating Pair



<sup>\*</sup> Design and specification are subject to change without notice.

# **Fiber Optic Connector**



# **Range Overview**

 $\,\,\,\,\,\,\,\,\,$  Receptacle to Field Installable



### □ Accessories

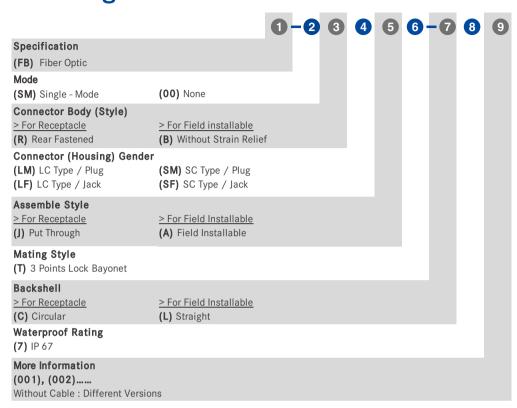


# **Specification**

Identifications	LC Type SC Type
Description	Receptacle Field Installable
Material	Receptacle: Mousing: PPO Screw Nut: Nylon Field Installable: Clamp Ring: PPO Lock Nut: PPO Sealing Nut: Nylon
Waterproof Rating	IP67
Temperature Range	Receptacle: -40°C~105°C Field Installable: -40°C~105°C

<sup>\*</sup> Design and specification are subject to change without notice.

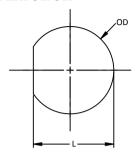
# **Ordering Information**



# **Physical Dimension**

## **∠** Receptacle

Panel Cut-Out

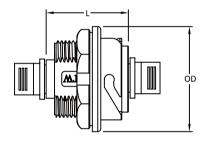


Dimension Type	L	OD
LC Type	23.60	25.60
SC Type	23.60	25.60

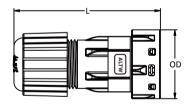
<sup>\*</sup> Maximum Panel Thickness: 4mm

Dimensions are shown in millimeters

Connector Dimension



### **∠** Field Installable



Type Dimension	L	W
LC Type	66.0	32.6
SC Type	66.0	32.6

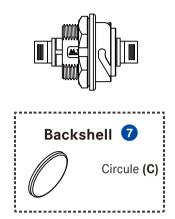
Dimensions are shown in millimeters

<sup>\*</sup> Design and specification are subject to change without notice.

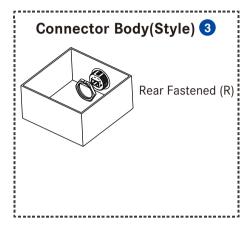


# **Product Features**

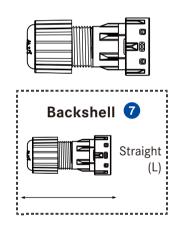
## **∠** Receptacle



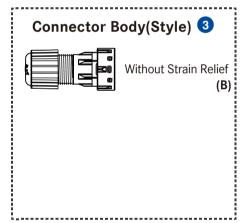




### **∠** Field Installable







# **Find Our Standard Products**

## □ Receptacle and Mating Pair

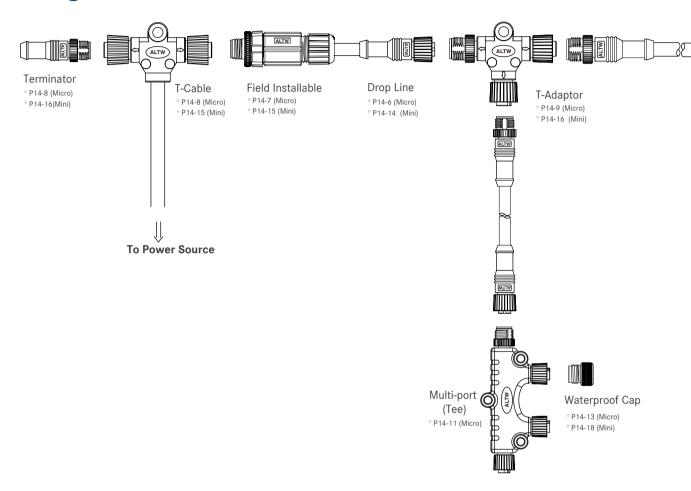
Female Connector (Housing)     3 Point Lock Bayonet	Receptacle	Field Installable
Туре	Female Connector (F)	Male Connector (M)
LC Type (L)	FB-00RLFJ-TC7001	FB-00BLMA-TL7001 FB-00BLMA-TL7002
SC Type (S)	FB-SMRSFJ-TC7001	FB-00BSMA-TL7001

FB-00BLMA-TL7001 (Cable OD: 2.5~2.8) FB-00BLMA-TL7002 (Cable OD: 4.5~6.8) FB-00BSMA-TL7001 (Cable OD: 2.4 max)

<sup>\*</sup> Design and specification are subject to change without notice.

## **NMEA 2000 Connector**

# **Range Overview**

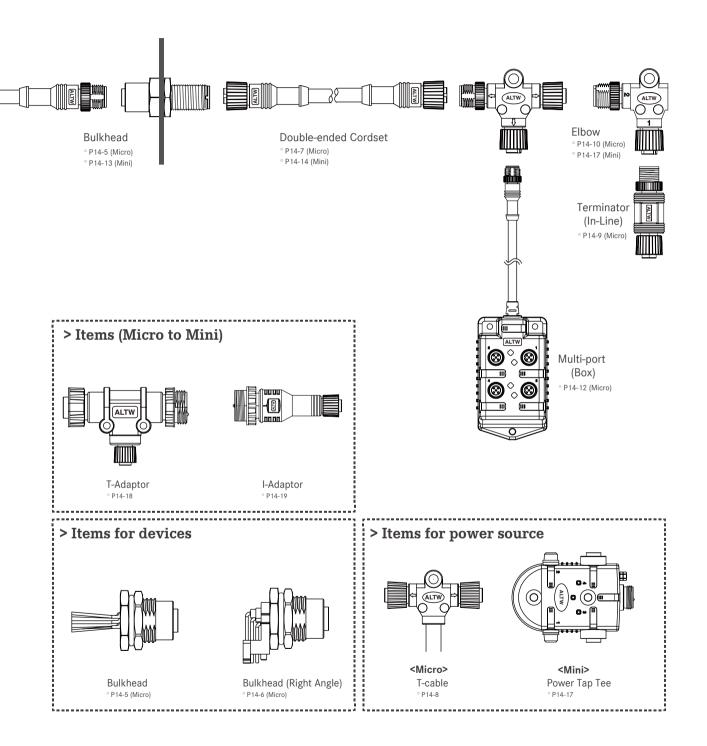


#### **About NMEA 2000**

Amphenol LTW Technology expands its coverage targeting the marine industry that features the NMEA 2000 standard.

The NMEA 2000 standard contains the requirements of a serial data communications network to inter-connect marine electronic equipment on vessels. It is multi-master and self-configuring, and there is no central network controller. Equipment designed to this standard will have the ability to

share data, including commands and status with other compatible equipment over a status with other compatible equipment over a single channel.



<sup>\*</sup> Design and specification are subject to change without notice.

# **Specification**

Identifications	Micro(AWG: 22 AWG, 24 AWG) Mini(AWG: 18 AWG, 15 AWG)
Description	Micro:  Bulkhead (With Wire / Double-ended / Right Angle) Cable (Drop Line / Double-ended Cordset / Field Installable / T-Cable) Network Terminator (Single-ended / In-line) Adaptor (T-Adaptor / Elbow) Multi-port Waterproof Cap Mini: Bulkhead (Double-ended) Cable (Drop Line / Double-ended Cordset / Field Installable / T-Cable) Network Terminator (Single-ended) Adaptor (T-Adaptor / Elbow) Power Tap Tee Waterproof Cap Mini to Micro: Adaptor (T-Adaptor / I-Adaptor)
Current Rating / Data	4A, 8A
Material	Contacts: Copper Alloy, Gold Plated Contacts Holder: PA
Waterproof Rating	IP67~68
Temperature Range	Receptacle: -40°C~85°C  Overmolded with Cable: -20°C~80°C  Field Installable: Nylon+GF: -40°C~105°C  PU: -20°C~85°C  * Higer working temperature upon request.

# **Contact Configuration**

	Micro-C	Mini-C
	4A	8A
	FF or MM	FF or MM
4Pin		0 0
5Pin	$\begin{pmatrix} \Delta \Delta \\ \Delta \Delta \Delta \end{pmatrix}$	000

$\overset{\triangle}{\circ}$	4A 8A
Numb	er of Contacts:
Ex.2 c	ontacts (02)
Conne	ector (Housing) Gender:
Male <b>(I</b>	<b>M)</b> or Female <b>(F)</b>
Conta	ct Gender:
Male(I	<b>M)</b> or Female <b>(F)</b>



# **Cabling Information**

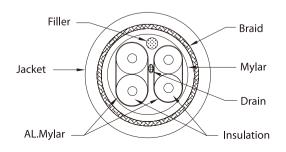
#### 

#### **NMEA Approved**

(A): (24#\*1P+AL) + (22#\*1P+AL) + Drain + Mylar + Braid

(A): (24#\*1P+AL) + (22#\*1P+AL) + Drain + AL + Braid

(B): (22#\*1P+AL) + (18#\*1P+AL) + Drain + AL + Braid



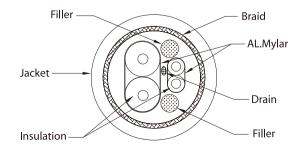
#### → Mini

#### **NMEA Approved**

(C): (18#\*1P+AL) + (15#\*1P+AL) + Drain + Braid

#### Conforming

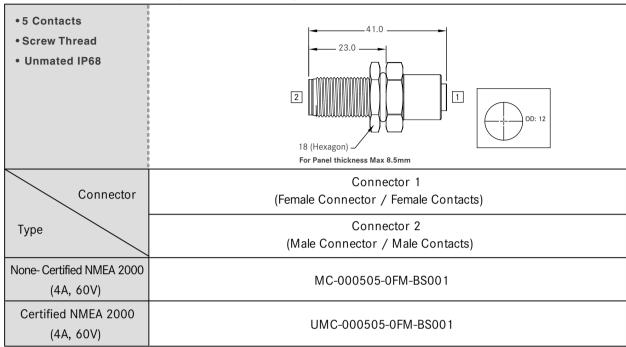
(C): (18#\*1P+AL) + (16#\*1P+AL) + Drain + AL+Braid



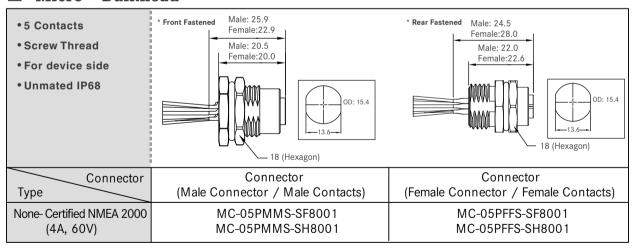
<sup>\*</sup> Design and specification are subject to change without notice.

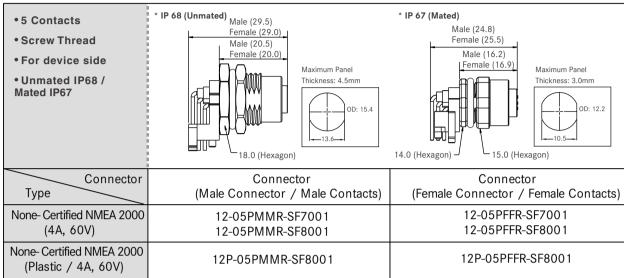
# **Find Our Standard Products**

### 

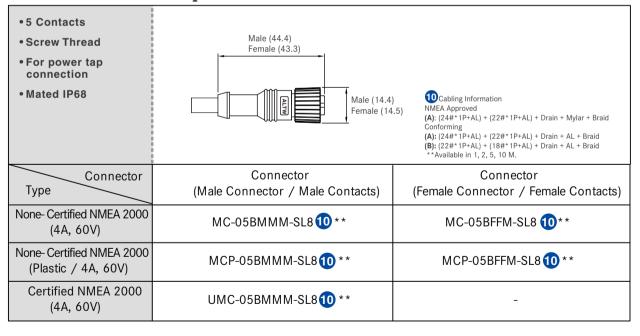


#### ✓ Micro > Bulkhead

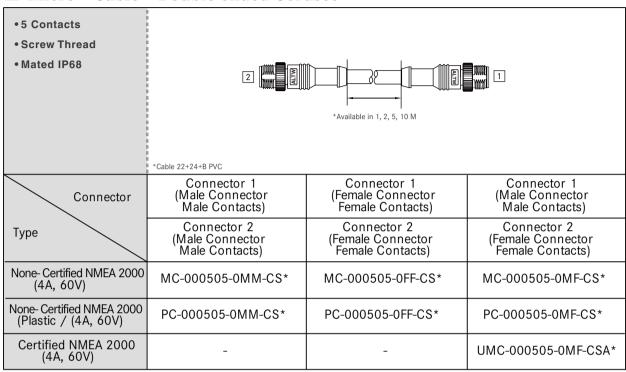


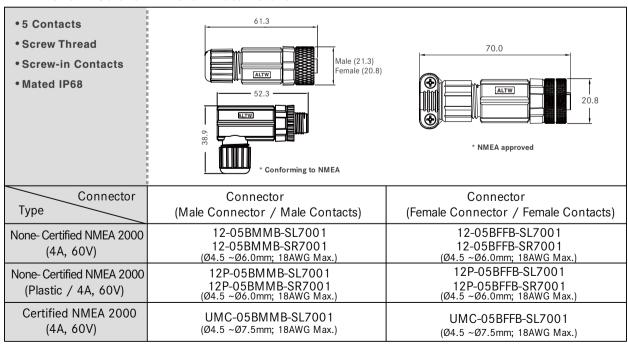


### $\triangle$ Micro > Cable > Drop Line

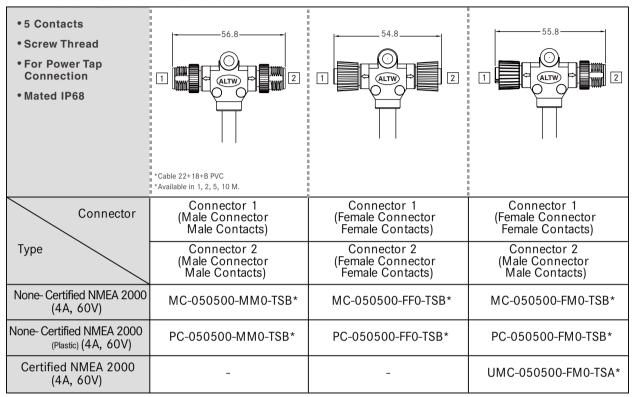


<sup>\*</sup> Design and specification are subject to change without notice.

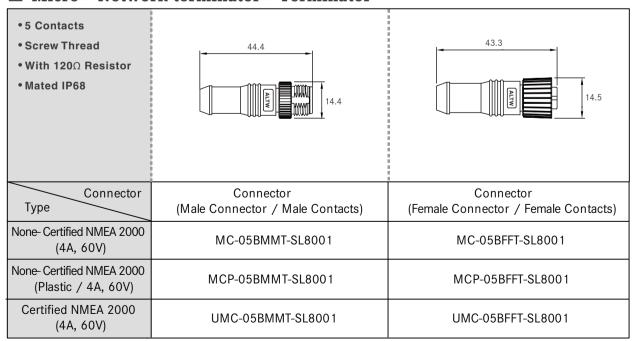




#### Micro > Cable > T-Cable

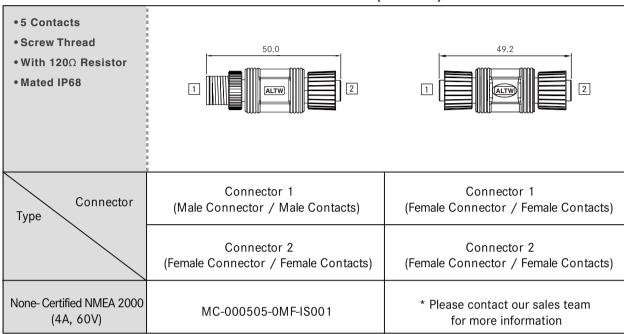


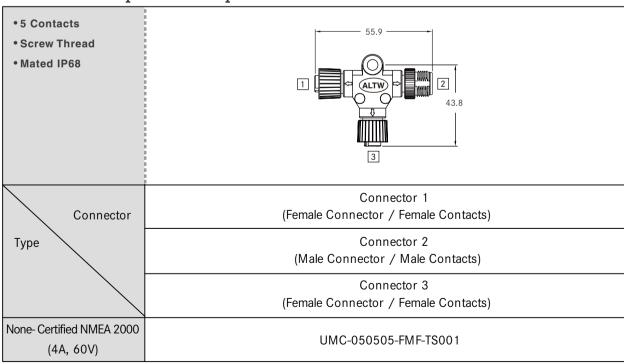
#### Micro > Network terminator > Terminator

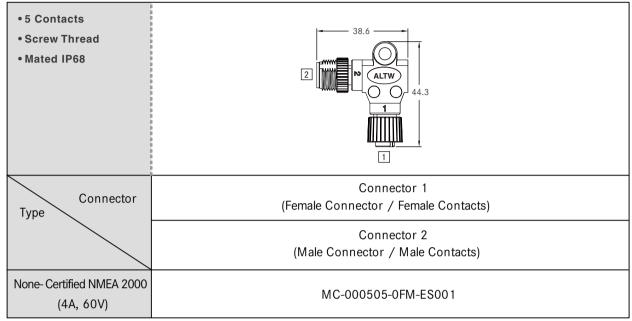


<sup>\*</sup> Design and specification are subject to change without notice.

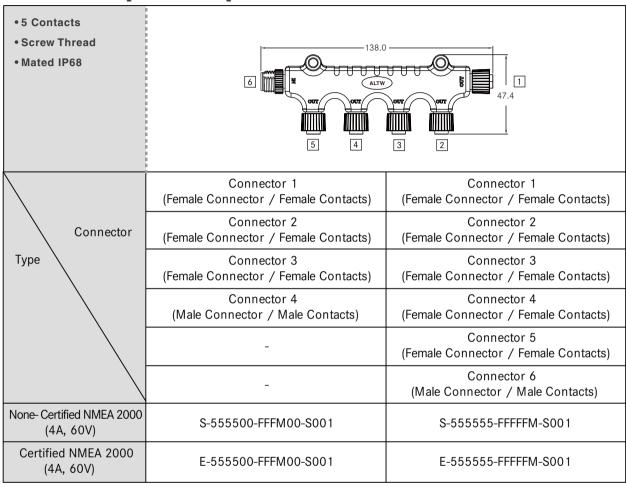
## → Micro > Network Terminator > Terminator (In-Line)

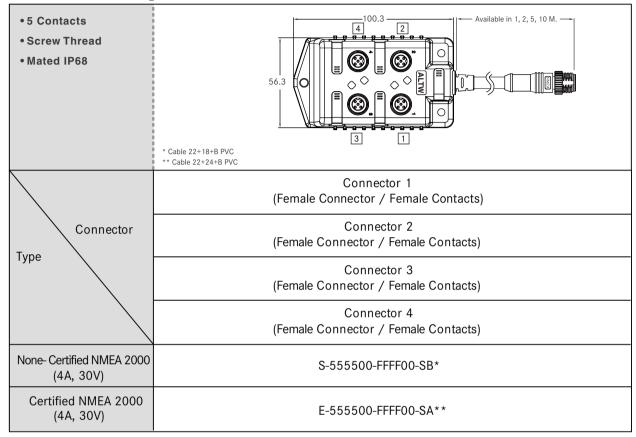




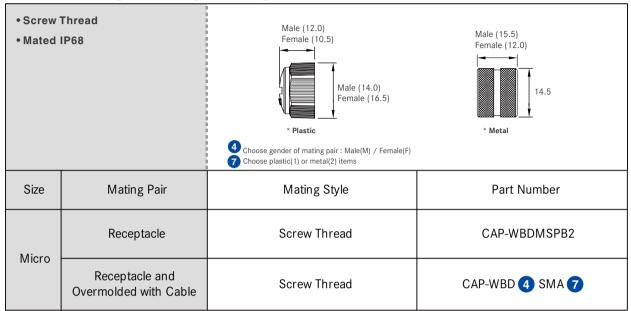


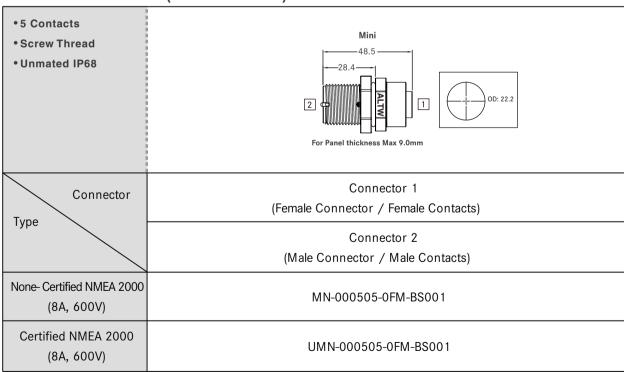
<sup>\*</sup> Design and specification are subject to change without notice.



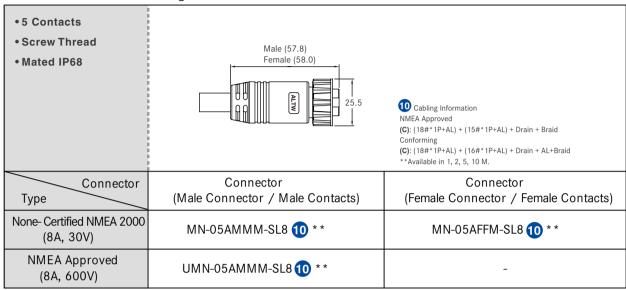


<sup>\*</sup> Design and specification are subject to change without notice.

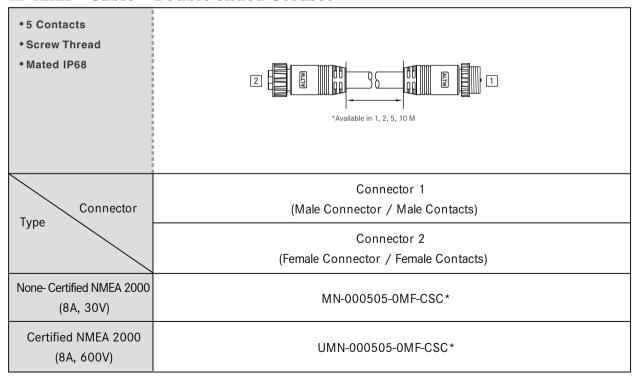




### → Mini > Cable > Drop Line



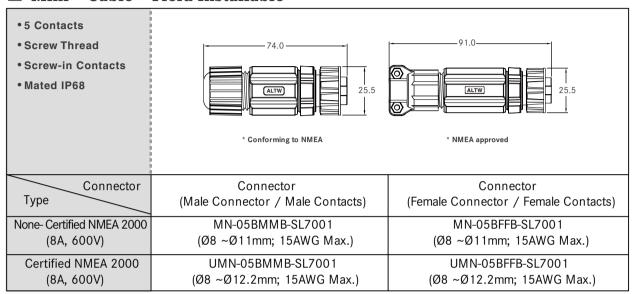
### Mini > Cable > Double-ended Cordset



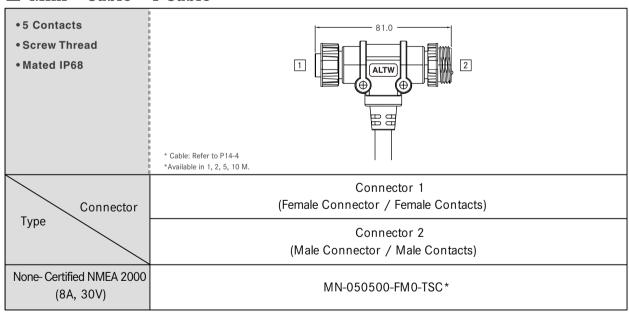
<sup>\*</sup> Design and specification are subject to change without notice.

#### Field Installable I T-Cable

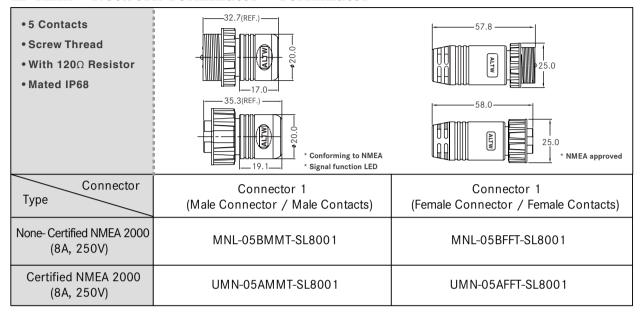
#### **>>** Mini > Cable > Field Installable

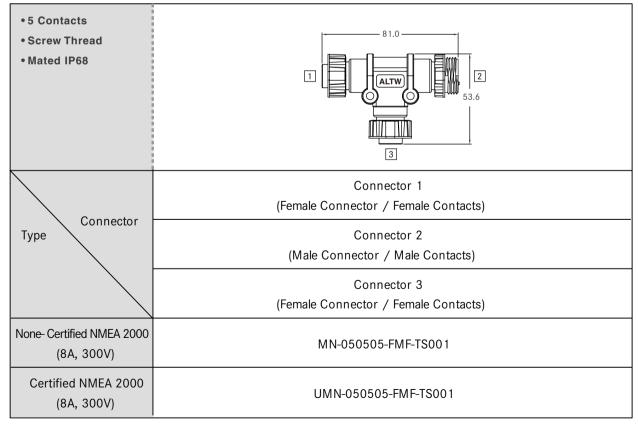


#### Mini > Cable > T-Cable



### → Mini > Network Terminator > Terminator





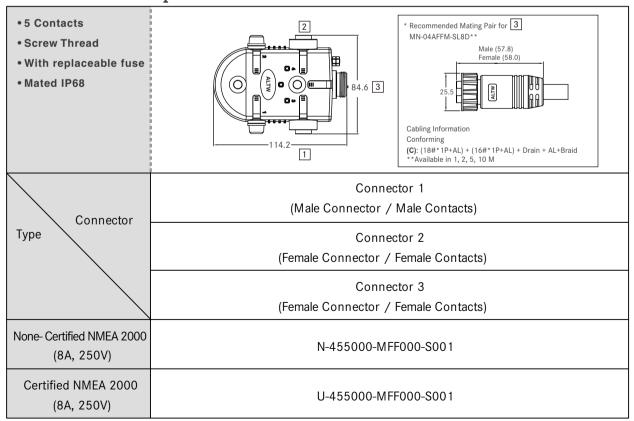
<sup>\*</sup> Design and specification are subject to change without notice.

Elbow I Power Tap Tee

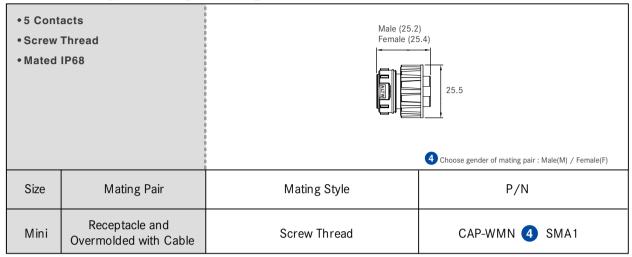
## → Mini > Adaptor > Elbow

• 5 Contacts • Screw Thread • Mated IP68	53.2 ALTW 55.0
Connector	Connector 1 (Female Connector / Female Contacts)
Туре	Connector 2 (Male Connector / Male Contacts)
None- Certified NMEA 2000 (8A, 300V)	MN-000505-0FM-ES001

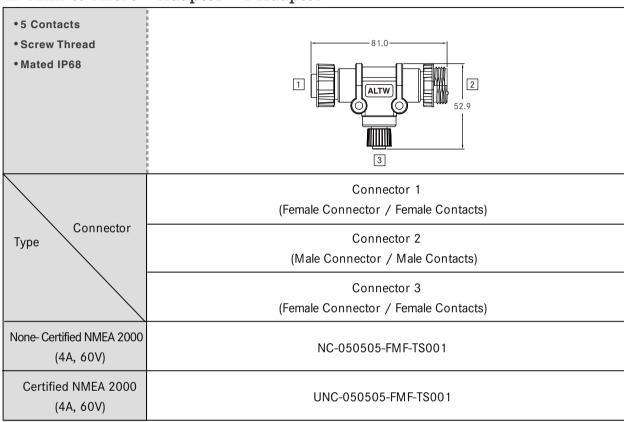
## → Mini > Power Tap Tee

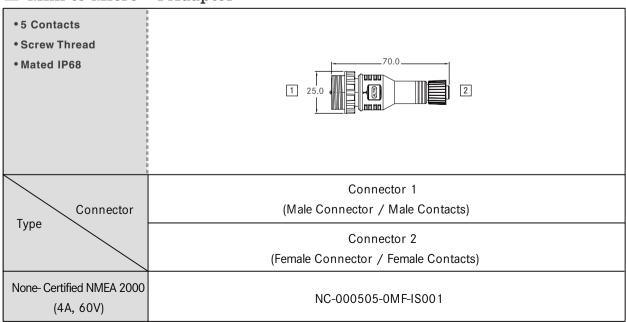


## → Mini > Cap > Waterproof Cap



<sup>\*</sup> Design and specification are subject to change without notice.

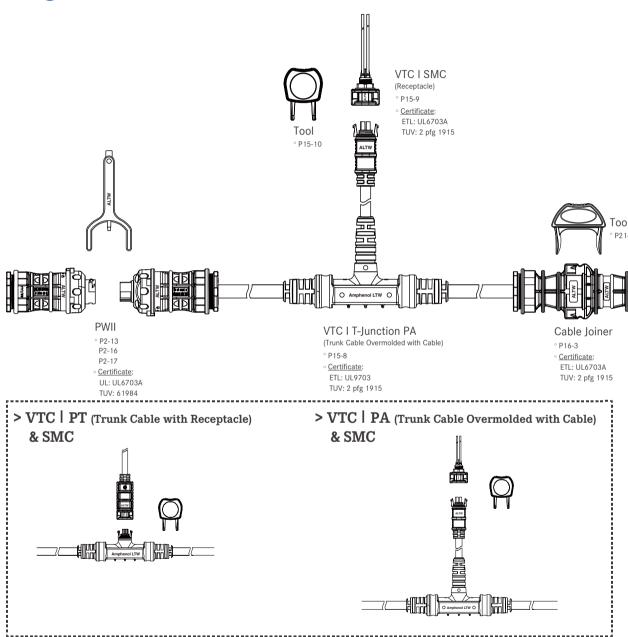


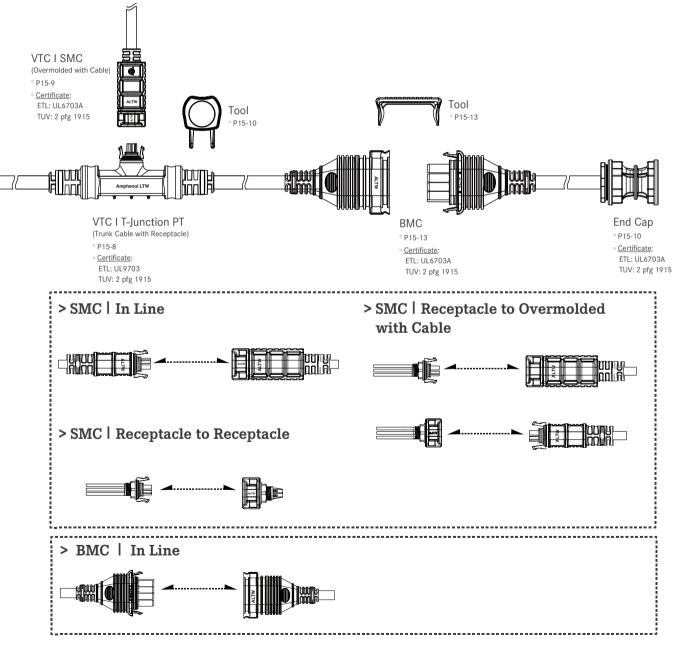


Memo	
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# **PV AC Connectors / T-Junction Connector**

# **Range Overview**





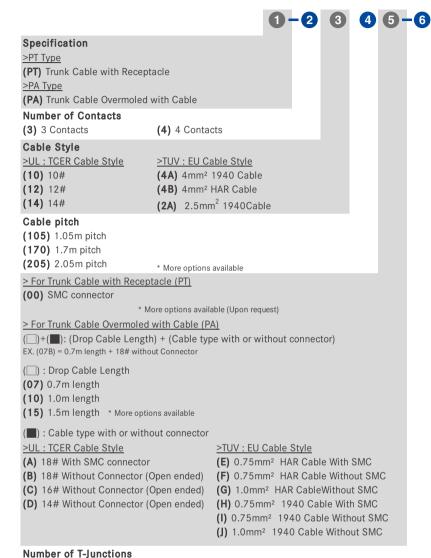
<sup>\*</sup> Design and specification are subject to change without notice.

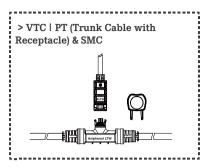


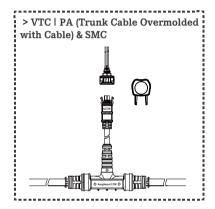
# **Specification**

Identifications	VTC   T Junction: PT & PA (For Trunk Cable) VTC   SMC (For Drop or Receptacle) BMC
Description	Cabling System for Micro-inverter
Current Rating / Data	VTC   T Junction: Trunk Range: UL15A~30A / TUV17-25A / 3~4Pin VTC   SMC: 5A / 03~4Pin BMC: UL17A / TUV19A / 3~4Pin
Material	Contacts: Copper Alloy Connector Body: m-PPE
Waterproof Rating	IP67
Temperature Range	Ambient: -40°C ~ +85°C Upper Limited Temperature:+105°C
Contact Resistance	$\leq 10 m\Omega$
Insulation Resistance	$\geq 100 m \Omega$ at DC500V
Durability	500 cycles
Breakdown Voltage	≥ DC6000V / 1 minute
Certificate	VTC   T-Juntion: ETL: UL9703, TUV: 2 pfg 1915 VTC   SMC: ETL: UL6703A, TUV: 2 pfg 1915 BMC: ETL: UL6703A, TUV: 2 pfg 1915
Voltage Rating	AC 300V
More to know	Salt Spray Corrosion test: 48H  Cable for Trunk: 14~10AWG or 2.5mm <sup>2</sup> ~4mm <sup>2</sup> Cable for Drop: 18AWG or 0.75mm <sup>2</sup> Trunk Cable Pitch: Upon request

# Ordering Information | VTC | T-Junction





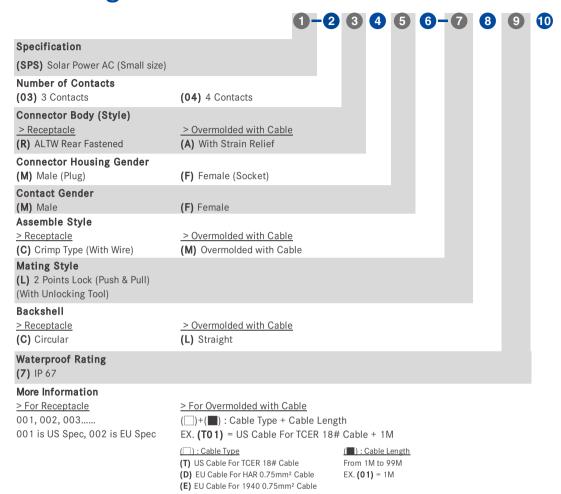


008, 011, 017, ...., 999 EX. (008) = 8 T-Junctions

<sup>\*</sup> Design and specification are subject to change without notice.

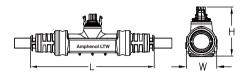


# Ordering Information | VTC | SMC

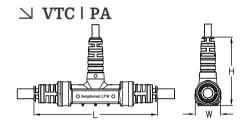


# **Physical Dimension**

#### ∨TC | PT



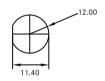
Dimension	L	Н	W
30A (UL TCER 10#)	150.0	50.1	30.6
20A (UL TCER 12#)	150.0	50.1	30.6
15A (UL TCER 14#)	150.0	50.1	30.6
25A (TUV 2pfg 1915 4mm²)	150.0	50.1	30.6
17A (TUV 2pfg 1915 2.5mm²)	150.0	50.1	30.6



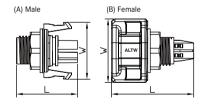
Dimension	L	Н	W
30A (UL TCER 10#)	150.0	83.0	30.6
20A (UL TCER 12#)	150.0	83.0	30.6
15A (UL TCER 14#)	150.0	83.0	30.6
25A (TUV 2pfg 1915 4mm²)	150.0	83.0	30.6
17A (TUV 2pfg 1915 2.5mm²)	150.0	83.0	30.6

### **∠** SMC | Receptacle

#### Panel Cut-Out



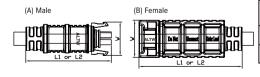
#### Connector Dimension



AMP Dimension	L		W	
Connector Gender	(B)	(A)	(B)	(A)
5A (SPS)	33.10	24.50	25.56	22.91

<sup>\*</sup> Maximum Panel Thickness: 4.0mm

### 



AMP Dimension	L	1	L	2	V	V
Connector Gender	(B)	(A)	(B)	(A)	(B)	(A)
5A (SPS)	70.85	58.70	80.85	68.70	25.56	22.91

<sup>\*</sup> Design and specification are subject to change without notice.

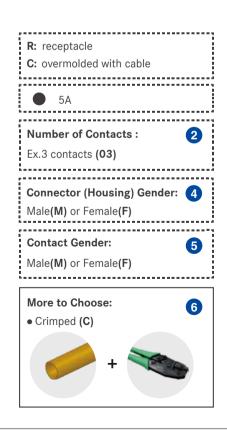
# **Contact Configuration**

### **∠** VTC I T-Junction

	VTC (Output)			
	3Pin		4 F	Pin
	US	EU	US	EU
10#	•		•	
12#	•		•	
14#	•		•	
4.0mm		•		
2.5mm		•		

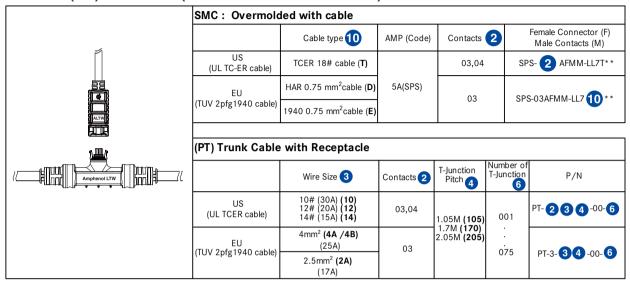
#### 

	SPS (Input)		
	5A		
	MM or FF MF or FM		
3 Contacts		RICI	
4 Contacts		: R C	

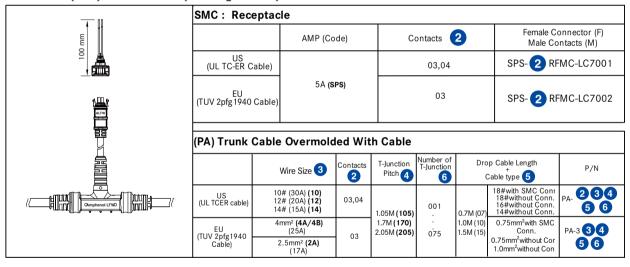


### **Find Our Standard Products**

#### ∨ VTC (PT) and SMC (Overmolded with Cable)



#### ∨ VTC (PA) and SMC (Receptable)



<sup>\*</sup> Design and specification are subject to change without notice.

### 

Male Connector (Housing)     Female Contacts     Safety Lock (Unlock tool needed)		Overmolded with Cable  Waterproof Cap CAP-WSMMFLA1	Overmolded with Cable  Waterproof Cap CAP-WSMMMLA1  **cable length:01-99m	
	Contacts 2	Cable type 10	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)
	03,04	T-TCER 18# cable (US)	SPS- 2 AMFM-LL7T**	SPS- 2 AFMM-LL7T**
5A(SPS) D-1		<b>D</b> -HAR 0.75mm <sup>2</sup> Cable (EU)	SPS-03AMFM-LL7 10 **	SPS-03AFMM-LL7 10 **
	03	<b>E</b> -1940 0.75mm² Cable (EU)	575-USAMIFM-LL/	5P5-U3AFIVIWI-LL/

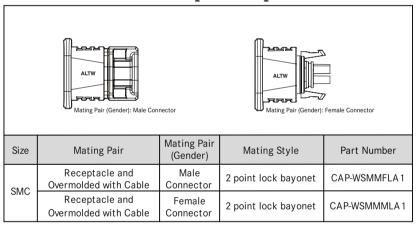
### 

Male Connector (Housing)			Receptacle	Overmolded with Cable	
*Female Contacts     *Safety Lock (Unlock tool needed)		Waterproof Cap CAP-WSMMFLA1	Waterproof Cap CAP-WSMMMLA1		
	1			**cable length:01-99m	
AMP (Code)	Contacts 2	Cable type 10	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)	
	03,04	<b>T</b> -TCER 18# wire (US)	SPS- 2 RMFC-LC7001	SPS-2AFMM-LL7T**	
5A(SPS)	00	<b>D</b> -HAR 0.75mm² wire (EU)	000 000000 107000	CDC 0045MM 11.7 40 **	
	03	<b>E</b> -1940 0.75mm² wire (EU)	SPS-03RMFC-LC7002	SPS-03AFMM-LL7 10 **	

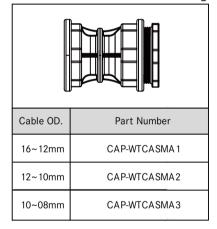
### 

• Female Conn	ector (Housing)		Receptacle	Overmolded with Cable
• Male Contact	s	_		
*Safety Lock (	Unlock tool need	led)		
		VV	Waterproof Cap CAP-WSMMMLA 1	Waterproof Cap CAP-WSMMFLA 1  **cable length:01-99m
			Female Connector (F)	Male Connector (M)
AMP (Code)	Contacts 2	Cable type 10	Male Contacts (M)	Female Contacts (F)
	03,04	T-TCER 18# wire (US)	SPS- 2 RFMC-LC7001	SPS- 2 AMFM-LL7T**
5A(SPS)		<b>D</b> -HAR 0.75mm² wire (EU)		
	03	<b>E</b> -1940 0.75mm² wire (EU)	SPS-03RFMC-LC7002	SPS-03AMFM-LL7 10 **

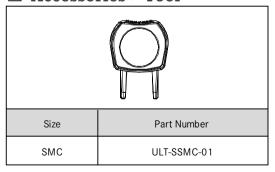
### △ Accessories > Waterproof Cap



#### △ Accessories > End-Cap

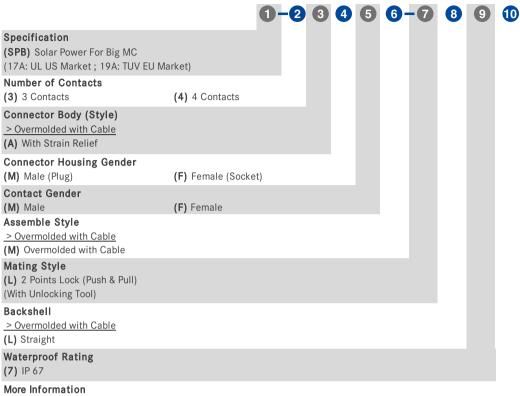


#### △ Accessories > Tool



<sup>\*</sup> Design and specification are subject to change without notice.

# **Ordering Information | BMC**



> For Overmolded with Cable

(□)+(■): Cable Type + Cable Length

EX. (C01) = EU Cable For HAR 4mm<sup>2</sup> Cable + 1M

(☐): Cable Type (☐): Cable Length

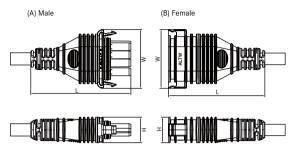
(R) UL Cable For TCER 12# Cable From 1M to 99M

(C) EU Cable For HAR 4mm<sup>2</sup> Cable EX. (01) = 1M

(L) EU Cable For 1940 4mm2 Cable

## **Physical Dimension**

#### □ BMC | Overolded with Cable



	L		W		Н	
Connector Gender	(B)	(A)	(B)	(A)	(B)	(A)
17A (SPB)	94.95	98.5	58.0	58.0	25.0	25.0
19A (SPB)	94.95	98.5	58.0	58.0	25.0	25.0

<sup>\* 17</sup>A: Comply to UL standard for USA 19A: Comply to TUV standard for Europe

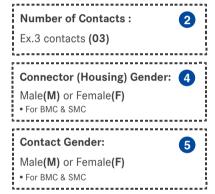
Dimensions are shown in millimeters

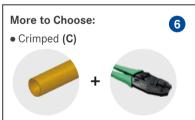
## **Contact Configuration**

#### $\supset$ BMC

	SPB (Oytput)			
	17A		19A	
	MM or FF	MM or FF	MM or FF	MM or FF
3 Contacts	•••			(*)
4 Contacts	·•••			

<sup>\* 17</sup>A: Comply to UL standard for USA 19A: Comply to TUV standard for Europe





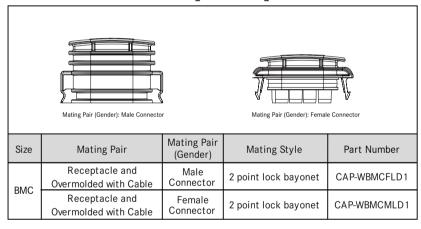
<sup>\*</sup> Design and specification are subject to change without notice.

### **Find Our Standard Products**

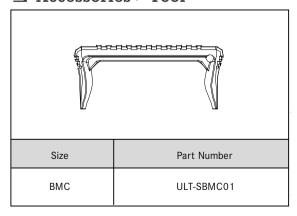
### 

* Male Connector (Housing)  * Female Contacts  * Safety Lock (Unlock tool needed)		Waterproof Cap CAP-WBMCFLD1  **cable length:01-99m	Overmolded with Cable  Waterproof Cap CAP-WBMCMLD1  **cable length:01-99m	
AMP (Code)	Contacts 2	Cable type 10	Male Connector (M) Female Contacts (F)	Female Connector (F) Male Contacts (M)
17A(SPB)	03,04	<b>R</b> -TCER 12# cable (US)	SPB- 2 AMFM-LL7R**	SPB-2 AFMM-LL7R**
19A(SPB)	03	<b>C</b> -HAR 4.0 mm² cable (EU)	SPB-03AMFM-LL7 10 **	SPB-03AFMM-LL7 10 **
174(350)	03	<b>L</b> -1940 4.0 mm² cable (EU)		OF B-OOAI IVIIVI-LL7

### △ Accessories > Waterproof Cap



#### △ Accessories > Tool



<sup>\*</sup> Design and specification are subject to change without notice.

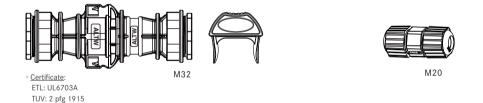
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# **Cable Joiner Connector**



# **Range Overview**

#### **∠** Field Installable



# **Specification**

Identifications (Cable OD)	6~10 mm, 8~10mm, 10~12mm, 12~16mm
Material	M20: Nylon M32: PPE
Waterproof Rating	IP67
Temperature Range	Field Installable: PPE: -40°C~105°C  Nylon: -40°C~105°C

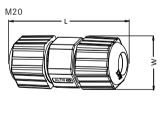
# **Ordering Information**

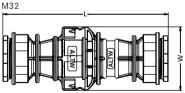


# **Physical Dimension**

#### □ Cable Joiner

Connector Dimension





Dimension Size	L	W	AWG (Terminal)	Cable OD
M20	56.0	25.4	-	6~10
M32	130.2	50.0	-	12~16
	130.2	50.0	-	10~12
	130.2	50.0	-	8~10
	130.2	50.0	14~16	8~10
	130.2	50.0	10~12	12~16
	130.2	50.0	10~12	10~12

Dimensions are shown in millimeters

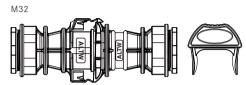
<sup>\*</sup> Design and specification are subject to change without notice.

## **Find Our Standard Products**

### □ Cable Joiner





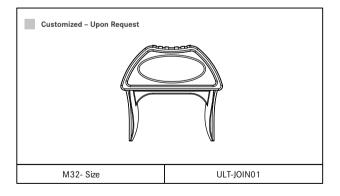


- · UV Resistant
- · Unlock with tool
- · Butt splice terminals optional
- ETL: UL6703A
- TUV: 2 pfg 1915

Size	Awg (Terminal)	Part Number
M20	Without Terminal (0)	CX-00B0M20-7001
	14~16 (B)	CX-04BBM32-7001
M32	10~12 (C)	CX-04BCM32-700*
	Without Terminal (0)	CX-00B0M32-700*

<sup>\*</sup> M32: Choose Cable OD: 8mm  $\sim$  10mm / 10mm  $\sim$  12mm / 12mm  $\sim$  16mm

#### △ Accessories > Unlock Tool



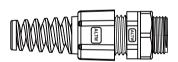
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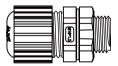
# Cable Gland



# **Range Overview**

**△** Plastic Cable Gland



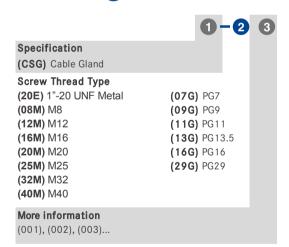




# **Specification**

Identifications	1"-20 UNF Metal, M8, M12, M16, M20, M25, M32, M40 PG7, PG9, PG11, PG13, PG16, PG29
Material	Connector Body (Plastic): Nylon 66, UL Recognized UV Resistant Connector Body (Metal): Zinc Alloy, Nickel plated (1"-20 Only)
Waterproof Rating	IP67~68
Temperature Range	Receptacle: -20°C ~ +105°C
More to know	Without Strain Relief / With Strain Relief Mating Style: Screw Thread

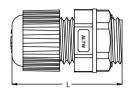
# **Ordering Information**



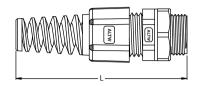
<sup>\*</sup> Design and specification are subject to change without notice.

# **Physical Dimension**

### **∠** Without Strain Relief



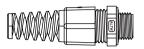
### **∠** With Strain Relief

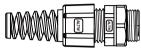


0:	Dimension (Without Strain Relief)				Maximum Panel
Size	Short	Long	Short	Long	Thickness
PG7	-	30.0mm	-	60.0mm	3.0mm
PG9	-	45.0mm	-	78mm	7.5mm
PG11	-	48.3mm	-	79.1mm	6.0mm
PG13	-	49.6mm	-	86.6mm	6.2mm
PG16	45.0mm	49.6mm	81.6mm	86.6mm	4.5mm (Short) 6.0mm (Long)
PG29	-	52.5mm	-	-	6.0mm
M8	22.0 mm	1	-	-	-
M12	30.0 mm	42.2mm	-	60.0mm	3.0mm
M16	40.0mm	45.0mm	75.3mm	78.0mm	3.0mm (Short) 7.5mm (Long)
M20	36.7mm	43.7mm	79.6 mm	86.6mm	6.2mm
M25	45.0mm	52.1mm	89.0 mm	96.0mm	6.2mm
M32	47.5 mm	52.5mm	-	-	6.0mm
M40	-	60.0mm	-	-	9.0mm
1"-20 UNF Metal	35.0mm		-	-	5.0mm

## **Find Our Standard Products**

#### → Plastic Cable Gland









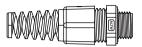
With Strain Relief / Without Screw Nut

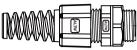
With Strain Relief / With Screw Nut

Without Strain Relief / Without Screw Nut

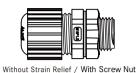
	Thread Style	Cable OD	Part Number	Cable Information 3
	PG7	4.5~6.5	CSG-07G00 3	001-Without strain relief,Black 002-Without strain relief ,Gray 003-With strain relief ,Black 004-With strain relief ,Gray 005-Without strain relief ,Gray For Knock Hole
	PG9	6.0~10.0	CSG-09G00 3	001-Without strain relief ,Black 002-Without strain relief ,Gray 003-With strain relief ,Black 004-With strain relief ,Gray 005-Without strain relief ,Gray For Knock Hole
	PG11	6.0~10.0	CSG-11G00 3	001-Without strain relief ,Black 002-Without strain relief ,Gray 003-With strain relief ,Black 004-With strain relief ,Gray
PG Thread	PG13	10.0~14.0	CSG-13G00 3	001-Without strain relief ,Black 002-Without strain relief ,Gray 003-With strain relief ,Black 004-With strain relief ,Gray
	PG16	10.0~14.0	CSG-16G00 <b>3</b>	00 1-Without strain relief ,Black (Long Body) 002-Without strain relief ,Gray (Long Body) 003-With strain relief ,Black (Long Body) 004-With strain relief ,Gray (Long Body) 006-Without strain relief ,Gray (Short Body),without Screw Nut 007-Without strain relief ,Black (Short Body),without Screw Nut 008-With strain relief ,Black (Short Body),without Screw Nut 009-With strain relief ,Gray (Short Body)
		5.5~7.6	CSG-16G005	Without strain relief, without screw nut Black (Short Body) For RJ Cable Use
	Max 6.		CSG-16G010	Without strain relief ,Black (Long Body) For RJ Cable Use
		16~22	CSG-29G00 3	001-Without strain relief,Black 002-Without strain relief ,Gray
	PG29	18~25	CSG-29G00 3	003-Without strain relief,Black 004-Without strain relief ,Gray

<sup>\*</sup> Design and specification are subject to change without notice.









With Strain Relief / Without Screw Nut

With Strain Relief / With Screw Nut

Without Strain Relief / Without Screw Nut

Without offull Rener / Without offull Rener / With oorew Hu

	Thread Style	Cable OD	Part Number	Cable Information 3
	M8	2.5~3.0	CSG-08M00 <b>3</b>	001-Without strain relief,Black 002-Without strain relief ,Gray
	M12	4.5~6.5	CSG-12M00 <b>3</b>	001-Without strain relief,Black 002-Without strain relief ,Gray 003-With strain relief ,Black 004-With strain relief ,Gray 005-Without strain relief ,Black (Short Body),V0 F1 006-Without strain relief ,Black (Long Body),V0 F1
	M16	6.0~10.0	CSG-16M00 <b>3</b>	001-Without strain relief ,Black (Long Body) 002-Without strain relief ,Black (Long Body), UV Resistant 003-Without strain relief ,Gray (Long Body) 004-Without strain relief ,Black (Short Body) 005-Without strain relief ,Gray (Short Body) 006-With strain relief ,Black (Long Body) 007-With strain relief ,Gray (Long Body) 008-With strain relief ,Gray (Long Body) 008-With strain relief ,Black (Short Body),without Screw Nut 009-With strain relief ,Gray (Short Body),without Screw Nut
Metric Thread	M20	10.0~14.0	CSG-20M00 <b>3</b>	001-Without strain relief ,Black (Long Body) 002-Without strain relief ,Black (Short Body),without Screw Nut 003-Without strain relief ,Gray (Long Body) 004-Without strain relief ,Gray (Short Body),without Screw Nut 005-With strain relief ,Black (Long Body) 006-With strain relief ,Gray (Long Body) 007-With strain relief ,Gray (Long Body),without Screw Nut 008-With strain relief ,Gray (Short Body),without Screw Nut
	M25	13.0~18.0	CSG-25M00 <b>3</b>	001-Without strain relief ,Gray (Long Body) 002-Without strain relief ,Black (Short Body),without Screw Nut 003-Without strain relief ,Black (Long Body) 004-Without strain relief ,Gray (Short Body),without Screw Nut 005-With strain relief ,Black (Long Body) 006-With strain relief ,Gray (Long Body) 007-With strain relief ,Black (Short Body),without Screw Nut 008-With strain relief ,Gray (Short Body),without Screw Nut
	Maa	16.0~22	CSG-32M00 <b>3</b>	001-Without strain relief ,Black (Long Body) 002-Without strain relief ,Gray (Long Body) 003-Without strain relief ,Black (Short Body),without Screw Nut 004-Without strain relief ,Gray (Short Body),without Screw Nut
	M32	18.0~25.0	CSG-32M00 <b>3</b>	005-Without strain relief ,Black (Long Body) 006-Without strain relief ,Gray (Long Body) 007-Without strain relief ,Black (Short Body),without Screw Nut 008-Without strain relief ,Gray (Short Body),without Screw Nut
	20~ M40	20~25	CSG-40M00 3	001-Without strain relief ,Black (Long Body) 002-Without strain relief ,Gray (Long Body)
		24~32	CSG-40M00 3	003-Without strain relief ,Black (Long Body) 004-Without strain relief ,Gray (Long Body)

### **△** Metal Cable Gland



	Thread Style	Cable OD	Part Number	Cable Information
		5.5~7.0	CSG-20E001	Without strain relief, Silver
Unified Screw Thread	1"-20 UNF Metal	7.8~9.3	CSG-20E002	Without strain relief, Silver

<sup>\*</sup> Design and specification are subject to change without notice.

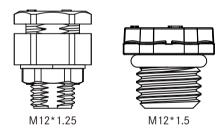
## **Vent Connector**

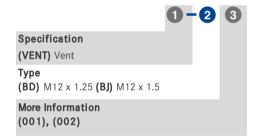


# **Range Overview**

# **Ordering Information**

### **∠** Receptacle



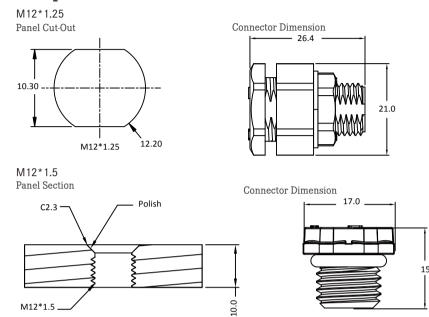


# **Specification**

Identifications	M12 Vent Connector
Material	PBT+PC (M12 x 1.25) / M-PPE (M12 x 1.5)
Waterproof Rating	IP67 (M12 x 1.25) / IP69K (M12 x 1.5)
Temperature Range	Receptacle: -20°C ~ +105°C (M12 x 1.25) -40°C ~ +105°C (M12 x 1.5)
More to know	Thermal Shock: EIA 364-32 or IEC 60512-11d UV Resistant: F1

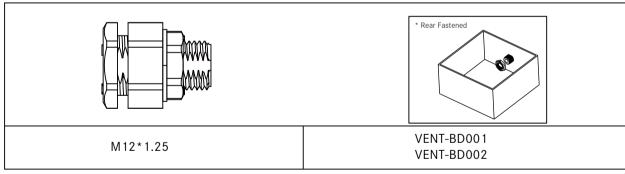
# **Physical Dimension**

### **∠** Receptacle



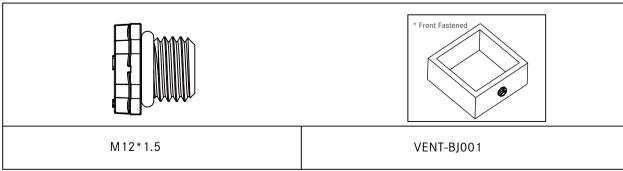
## **Find Our Standard Products**

### **∠** Receptacle



Different air permeability: 1.VENT-BD001:Air permeability: 12sec/100cm<sup>3</sup> 2.VENT-BD002:Air permeability: 10sec/100cm<sup>3</sup>

### **∠** Receptacle



Note: VENT-BJ001:Air permeability: 10sec/cm<sup>3</sup>

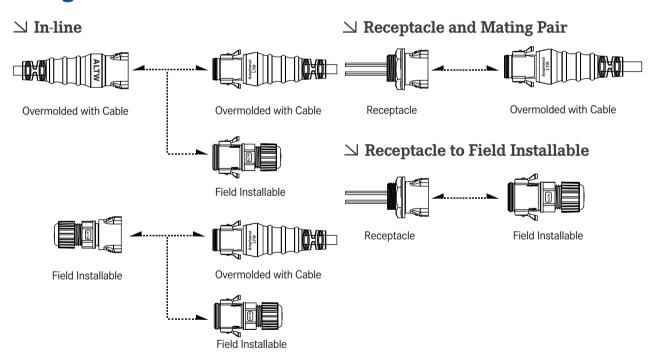
<sup>\*</sup> Design and specification are subject to change without notice.

### **RBL Connector**



- Haptic
- Blind Mating
- Push-to-Connector
- Easy and Fast Disconnect

# **Range Overview**



#### △ Accessories

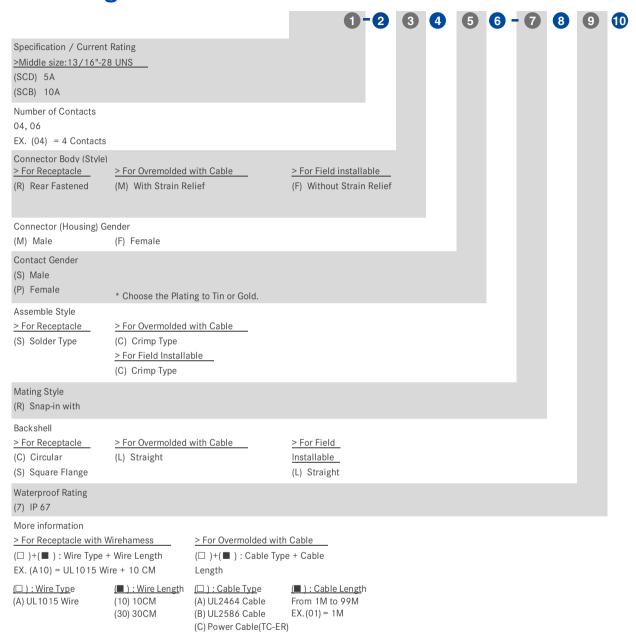


# **Specification**

Identifications	C Size (Middle Size: 13/16"-28 UNS)
Description	Receptacle Overmolded with Cable Field Installable
Current Rating / Data	5A, 10A
Material	Contacts: Copper Alloy, Tin Plated & Gold Plated (Selective) Connector Body (Housing): m-PPE,540Z,BK
Waterproof Rating	IP67(Mate Waterproof)
Temperature Range	Receptacle: -40°C ~ +105°C  Overmolded with Cable: -20°C~80°C  Field Installable: -40°C~ +105°C
Contact Resistance	$\leq 10 m\Omega$
Insulation Resistance	$\geq 100 m \Omega$ at DC500V
Durability	1000 cycles
Breakdown Voltage	≥ AC1000V / 1 minute
More to know	Salt Spray Corrosion Test: 4H Standard cable length: 01~99M

<sup>\*</sup> Design and specification are subject to change without notice.

# **Ordering Information**

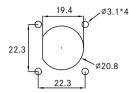


# **Physical Dimension**

### **∠** Receptacle

A Backshell: Circular Panel Cut-Out 19.4

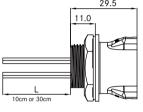
B Backshell: Square Flange Panel Cut-Out

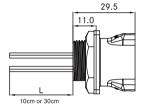


Connector Dimension

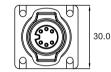
Ø20.8

Connector Dimension

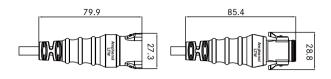




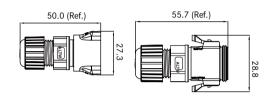




#### □ Overmolded with Cable

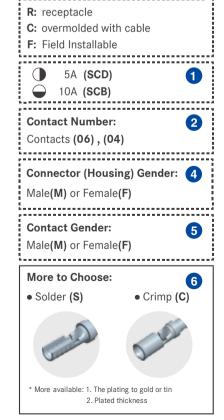


#### **∠** Field Installable



# **Contact Configuration**

	Middle Size (C)			
	5A		10A	
4 5	MM or FF	MF or FM	MM or FF	MF or FM
2Pin				
3Pin				
4Pin			R C F	-
5Pin				
6Pin	R C F			



1-23456-78910

\* Design and specification are subject to change without notice.



## **Find Our Standard Products**

### Middle Size: 13/16"-28 UNS > Receptacle and Mating Pair

• Female Conr • Snap-in with		* Receptacle ** Receptacle With Wireharness: A10 - 10cm; A30 - 30cm ** Choose the cable length:01-99	Overmolded with Cable  ** Select cable length from 01~99m	Field Installable
Current Rating (Code)	Contacts	Female Connector (F)	Male Connector (M)	Male Connector (M)
5A <b>(SCD)</b>	06	SCD-06RFPS-RC** SCD-06RFPS-RS**	SCD-06MMSC-RL7A**	SCD-06FMSC-RL7001
10A <b>(SCB)</b>	04	SCB-04RFPS-RC** SCB-04RFPS-RS**	SCB-04MMSC-RL7A**	SCB-04FMSC-RL7001

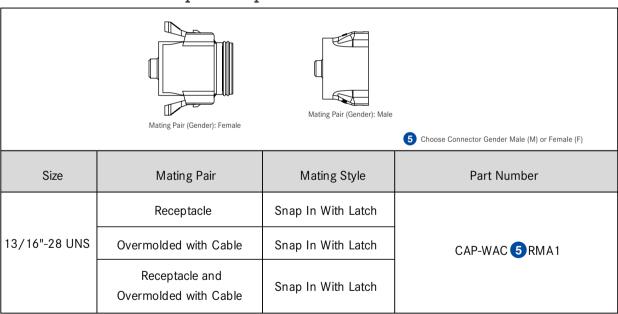
### Middle Size: 13/16"-28 UNS > In-line

• Female Conr		Overmolded with Cable>	Overmolded with Cable	Field Installable
• Snap-in with	Laten	A Legisland		
		** Select cable length from 01~99m	** Select cable length from 01~99m	
Current Rating (Code)	Contacts	Female Connector (F)	Male Connector (M)	Male Connector (M)
5A <b>(SCD)</b>	06	SCD-06MFPC-RL7A**	SCD-06MMSC-RL7A**	SCD-06FMSC-RL7001
10A <b>(SCB)</b>	04	SCB-04MFPS-RS**	SCB-04MMSC-RL7A**	SCB-04FMSC-RL7001

### Middle Size: 13/16"-28 UNS >In-line

Female Connector     Snap-in with Latch		Field Installable	Overmolded with Cable	Field Installable
			on and an	
Current Rating (Code)	Contacts	Female Connector (F)	** Select cable length from 01~99m  Male Connector (M)	Male Connector (M)
5A <b>(SCD)</b>	06	SCD-06FFPC-RL7001	SCD-06MMSC-RL7A**	SCD-06FMSC-RL7001
10A <b>(SCB)</b>	04	SCB-04FFPC-RL7001	SCB-04MMSC-RL7A**	SCB-04FMSC-RL7001

### △ Accessories > Waterproof Cap



## X-Lok Connector

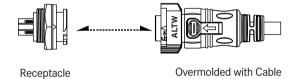


- Haptic
- Blind Mating
- Push-to-Connector
- Easy and Fast Disconnect

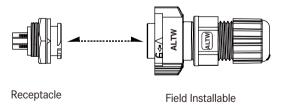
Overmolded with Cable

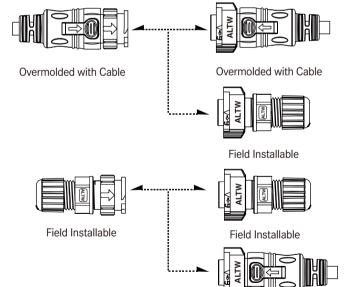
# **Range Overview**

 $\triangle$  Receptacle to Overmolded with Cable ☑ In Line



ightharpoonup Receptacle to Field Installable





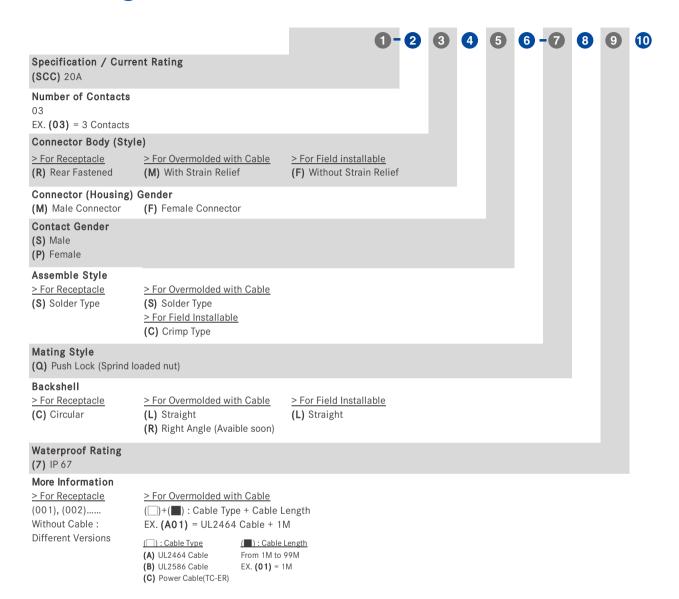
# **Specification**

Identifications	C Size (Middle Size: 13/16"-28 UNS)
Description	Receptacle Overmolded with Cable Field Installable
Current Rating / Data	20A
Material	Contacts: Copper Alloy, Tin & Gold Plated Connector Body (Housing): Nylon+GF, UL Recognized
Waterproof Rating	IP67
Temperature Range	Receptacle: -40°C ~ +105°C  Overmolded with Cable: -20°C~80°C  Field Installable: -40°C~ +105°C
Contact Resistance	$\leq 10 m\Omega$
Insulation Resistance	$\geq 100 m \Omega$ at DC500V
Durability	500 cycles
Breakdown Voltage	≥ AC 1600V / 1 minute
More to know	Salt Spray Corrosion Test: 12H Standard cable length: 01~99M

<sup>\*</sup> Design and specification are subject to change without notice.

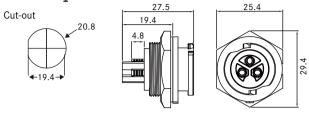


## **Ordering Information**



## **Physical Dimension**

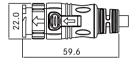
### **∠** Receptacle



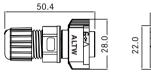
<sup>\*</sup> Maximum Panel Thickness: 4.2mm I Solder PIN: 12Awg ~ 14Awg

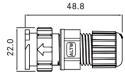
#### □ Overmolded with Cable





#### ∑ Field Installable

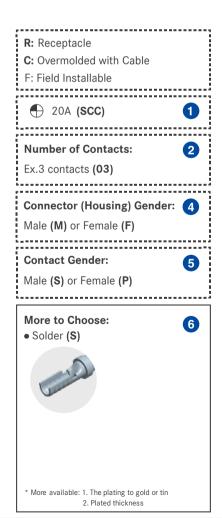




Cable OD Range: 4.0mm ~ 9.6mm Dimensions are shown in millimeters

## **Contact Configuration**

	Middle Size
	20A
4 5	MM or FF MF or FM
3 Pin	R C F R C F



<sup>\*</sup> Design and specification are subject to change without notice.

Middle Size: 13/16"-28UN



# **Find Our Standard Products**

### □ Receptacle and Mating Pair

Male Connector     Push Lock (Sprind loaded nut)		Receptacle	Overmolded with Cable	Field Installable
			** Selecting the cable length:01-99	ALTW
Current Rating (Code)	Contacts	Male Connector (M)	Female Connector (F)	Female Connector (F)
20A (SCC)	03	SCC- 03RMPS-QC7001	SCC-03MFSS-QL70**	SCC-03FFSC-QC7001

### 

• Female Con • Push Lock (Sp	nector orind loaded nut)	Overmolded with Cable	Overmolded with Cable	Field Installable
		** Selecting the cable length:01-99	** Selecting the cable length:01-99	
Current Rating (Code)	Contacts	Female Connector (F)	Male Connector (M)	Male Connector (M)
20A (SCC)	03	SCC-03MFSS-QL70**	SCC-03MMPS-QL70**	SCC-03FMPC-QC7001

#### ☑ In-line

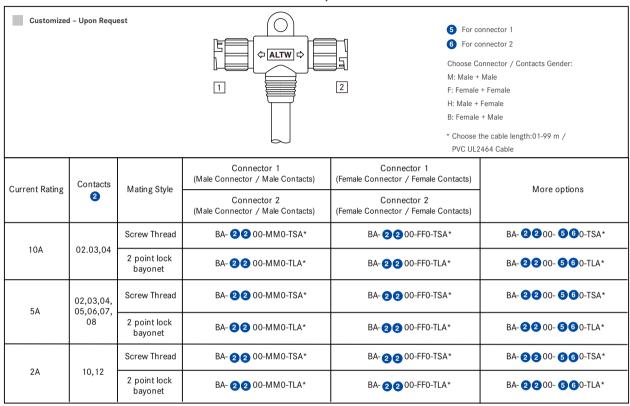
• Female Coni • Push Lock (Sp	nector orind loaded nut)	Field Installable	Field Installable	Overmolded with Cable  ** Selecting the cable length: 01-99
Current Rating (Code)	Contacts	Female Connector (F)	Male Connector (M)	Male Connector (M)
20A (SCC)	03	SCC- 03FFSC-QL7001	SCC- 03FMPC-QC7001	SCC- 03MMPS-QL70**

# **Accessories Index**

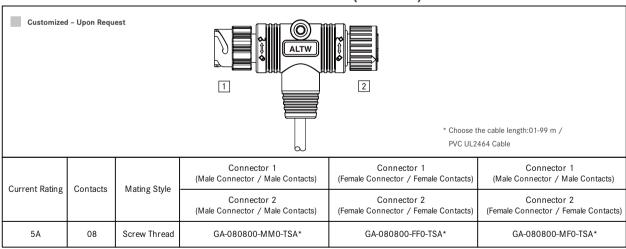
• Cable
T-Cable21-1
Y-Cable21-3
Adaptor
T-Adaptor21-4
Y-Adaptor21-6
I-Adaptor21-7
• Cap
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Multi-port
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Box21-2
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Wrench21-22
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Patch Cable (Double-ended)
Patch Cable (Double-ended)21-24

### **Accessories - Cable**

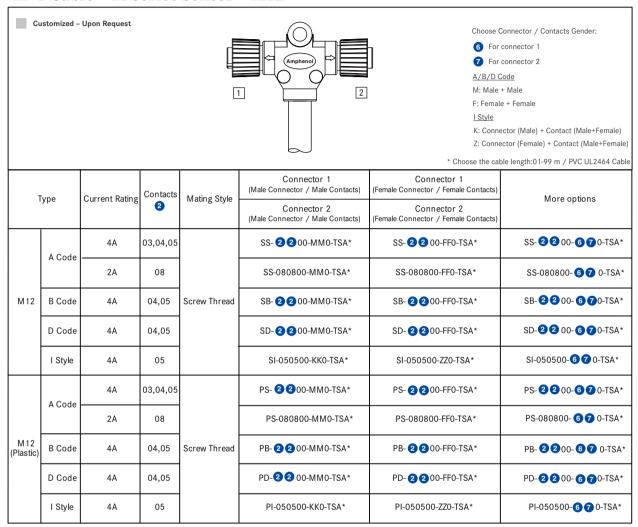
#### ☑ T-Cable > Circular > Standard Size: 5/8"-27 UNS



### 

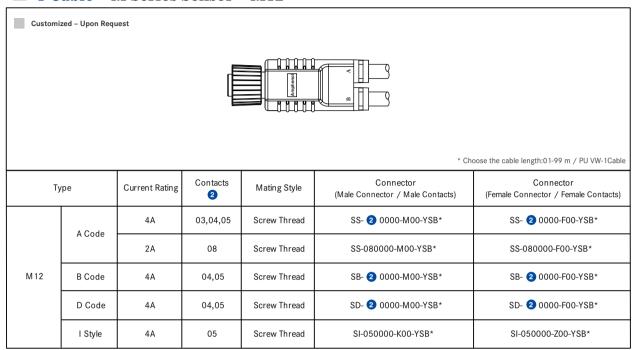


#### 



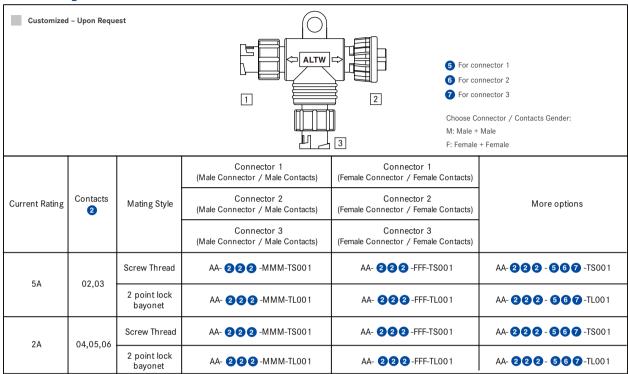
<sup>\*</sup> Design and specification are subject to change without notice.

### Y-Cable > M Series Sensor > M12

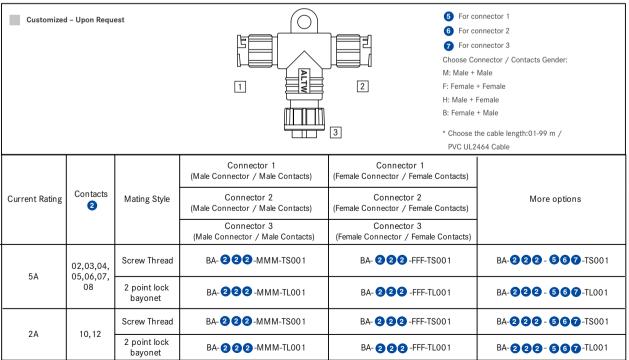


## **Accessories - Adaptor**

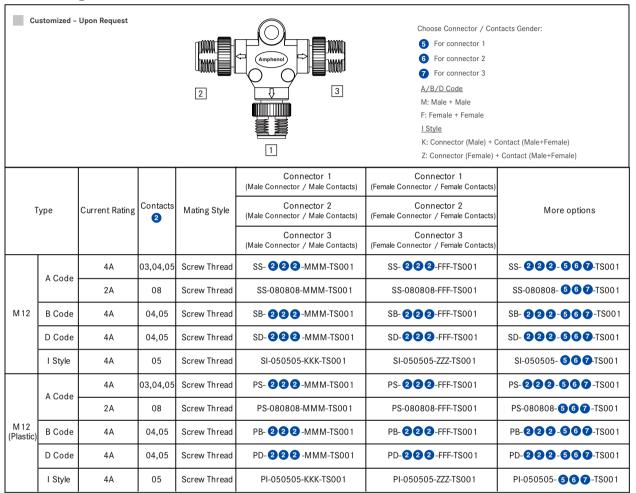
#### 

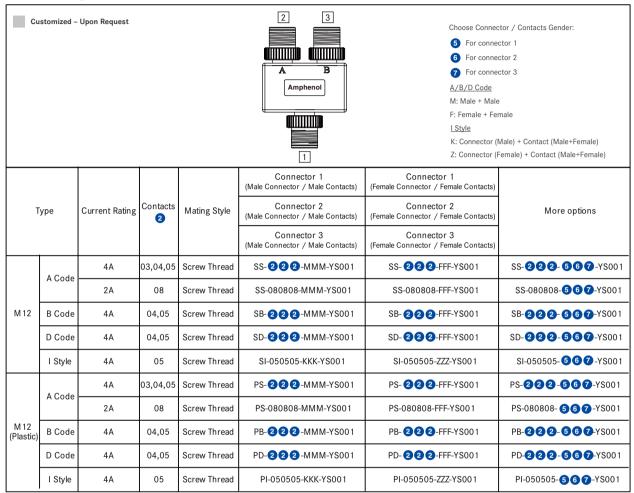


## □ T-Adaptor > Circular > Standard Size: 5/8"-27 UNS

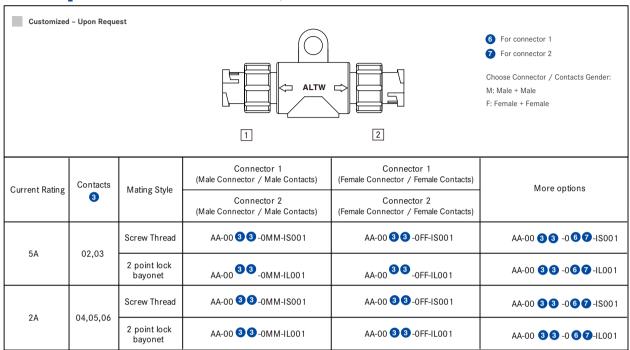


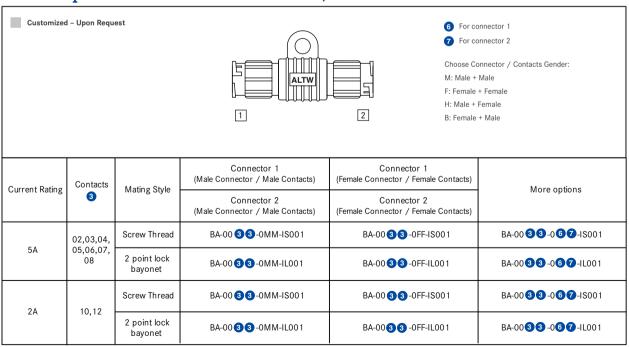
<sup>\*</sup> Design and specification are subject to change without notice.





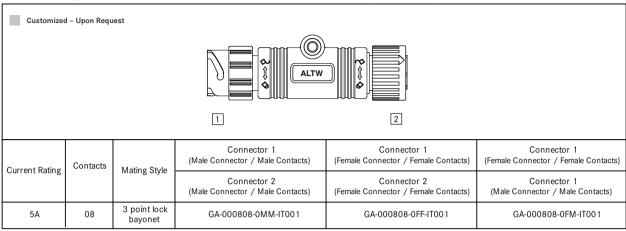
<sup>\*</sup> Design and specification are subject to change without notice.





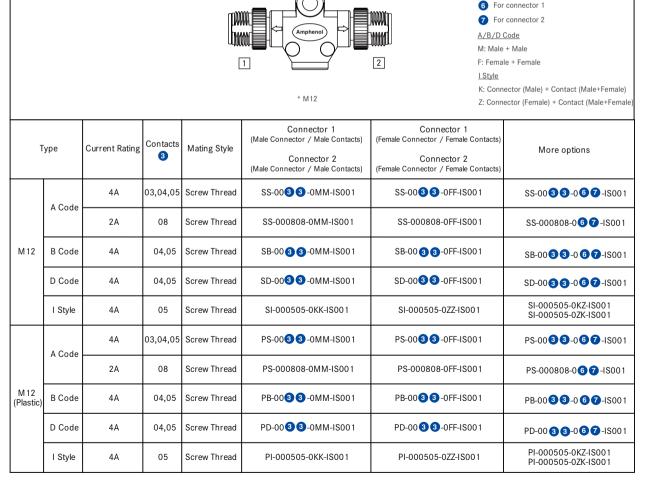
Choose Connector / Contacts Gender:

### 



#### 

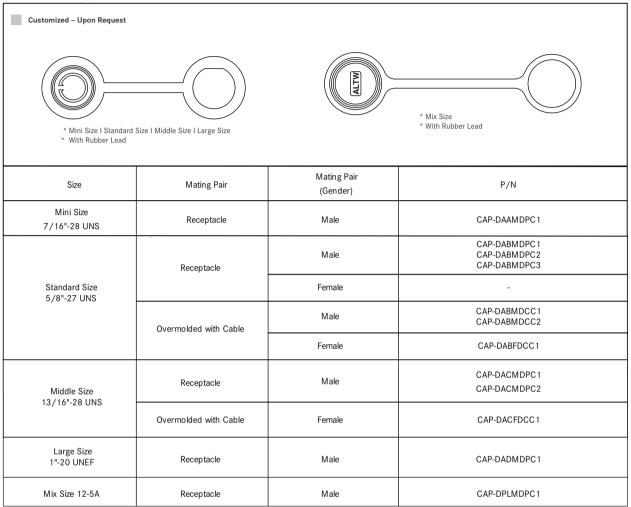
Customized - Upon Request



<sup>\*</sup> Design and specification are subject to change without notice.

# **Accessories - Cap**

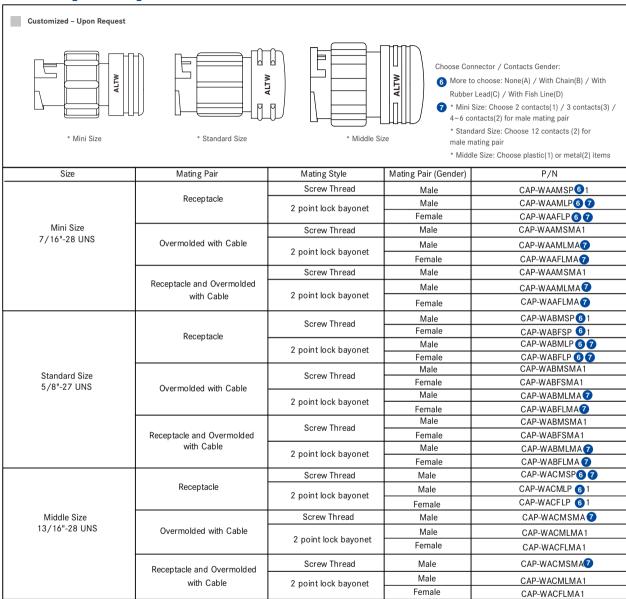
## □ Dust Cap > Circular



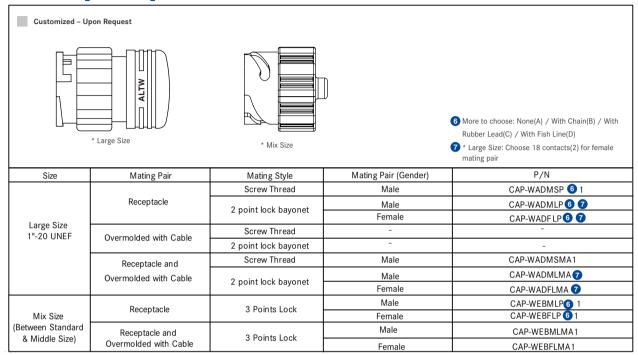
## □ Dust Cap > D-SUB > Standard & High Density

Customized - Upon I	Request						
			©	© ALTW			
			*Choose r	ubber lead: Vertical type (1) / Horizontal type (2)			
Ту	/pe	- Mating Pairs	Mating Pair	P/N			
Standard D-SUB	High Density D-SUB	Wating Fairs	(Gender)				
	High Density (15 Pins)	Receptacle (With horizontal rubber lead)	Male -	CAP-DD1MDPC2			
Standard (9 pins)		High Donoity (15 Bins)	Receptacle and Overmolded with Cable (With horizontal / Vertical rubber lead)	iviale	CAP-DD1MDMA1		
Standard (7 pins)		Receptacle	- Female -	CAP-DD1FDPC1* CAP-DD1FDPC2*			
		Receptacle and Overmolded with Cable		CAP-DD1FDMA1			
Standard (15 pins)	High Density (26 Pins)	Receptacle and Overmolded with Cable	Male	CAP-DD2MDMA1			
Standard (13 pins)	Tilgit Detisity (20 Filis)	Receptacle and Overmolded with Cable	Female	CAP-DD2FDMA1			
		Receptacle and Overmolded with Cable	Male	CAP-DD3MDMA1			
Standard (25 pins)	High Density (44 Pins)	High Density (44 Pins)	High Density (44 Pins)		Receptacle (With horizon tal rubber lead)	Female	CAP-DD3FDPC1
		Receptacle and Overmolded with Cable	i emaic	CAP-DD3FDMA1			

<sup>\*</sup> Design and specification are subject to change without notice.

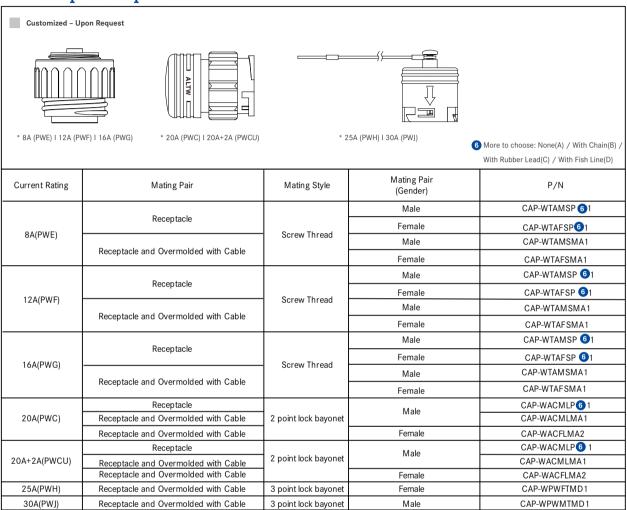


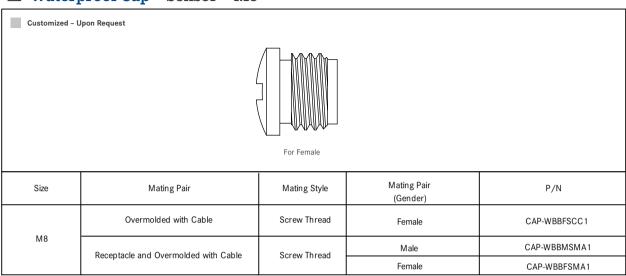
### **△** Waterproof Cap >Circular



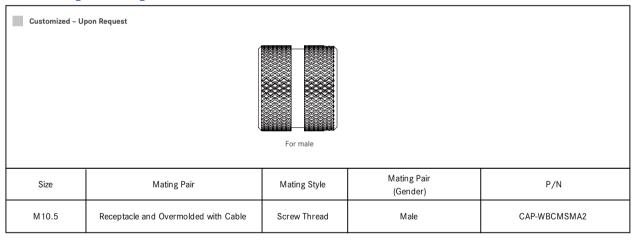
<sup>\*</sup> Design and specification are subject to change without notice.

### → Waterproof Cap > Power



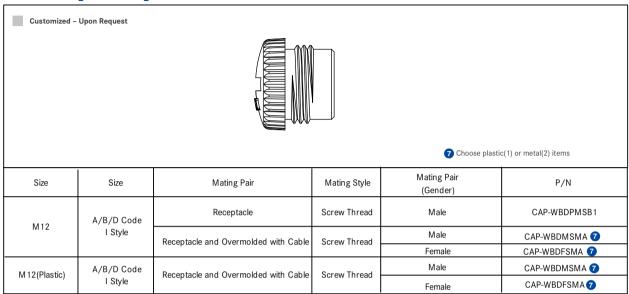


## **△ Waterproof Cap > Sensor > M10.5**

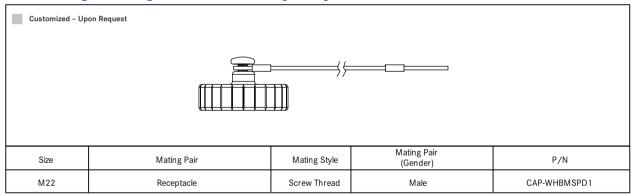


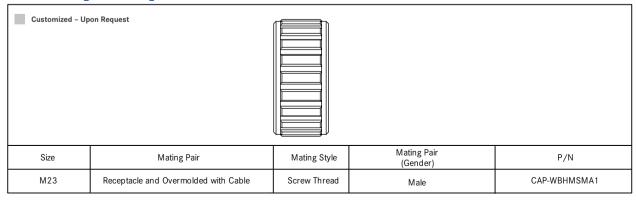
<sup>\*</sup> Design and specification are subject to change without notice.

#### **△** Waterproof Cap > Sensor > M12

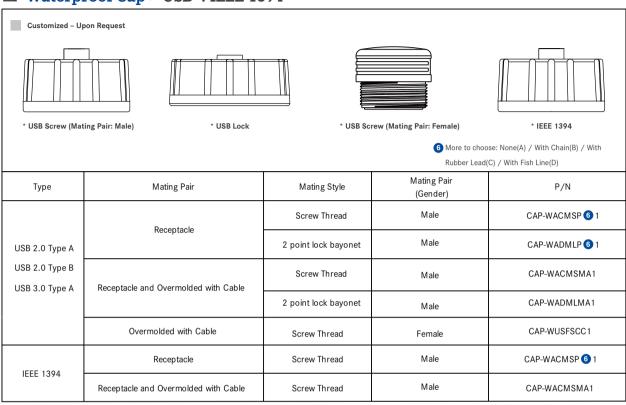


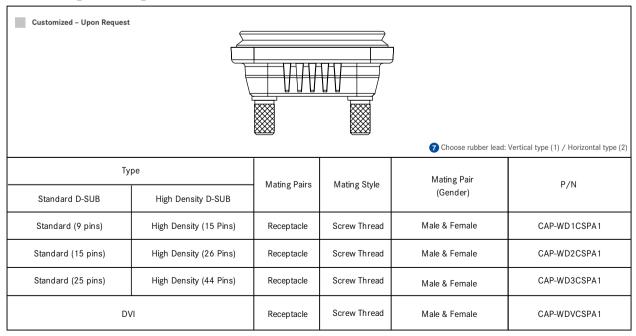
### 





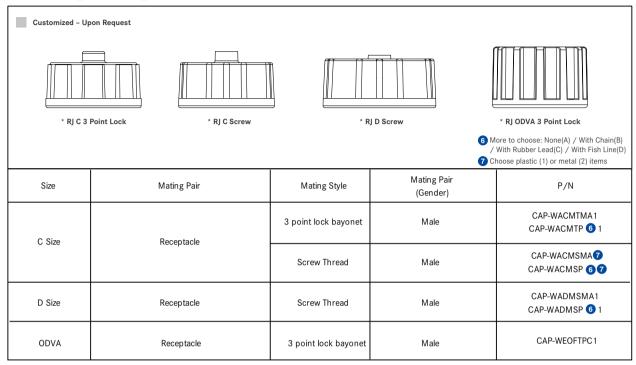
#### **△ Waterproof Cap > USB | IEEE 1394**

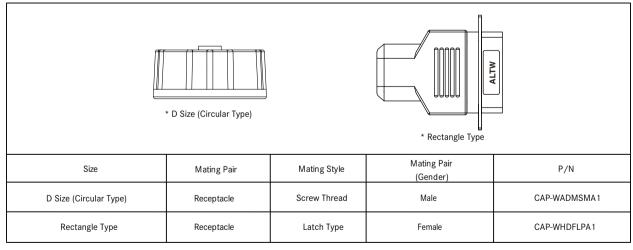


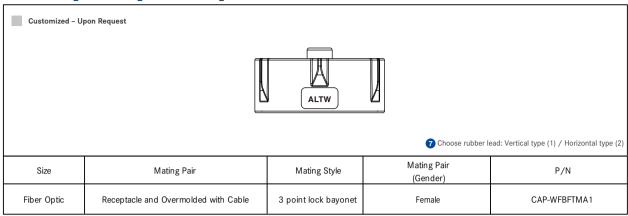


<sup>\*</sup> Design and specification are subject to change without notice.

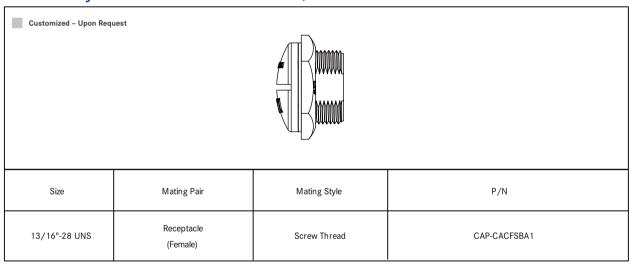
## → Waterproof Cap > RJ







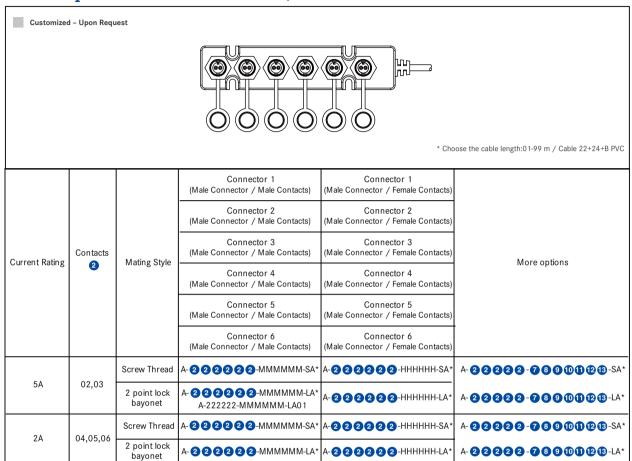
## □ Dummy > Circular > Middle Size: 13/16"-28 UNS

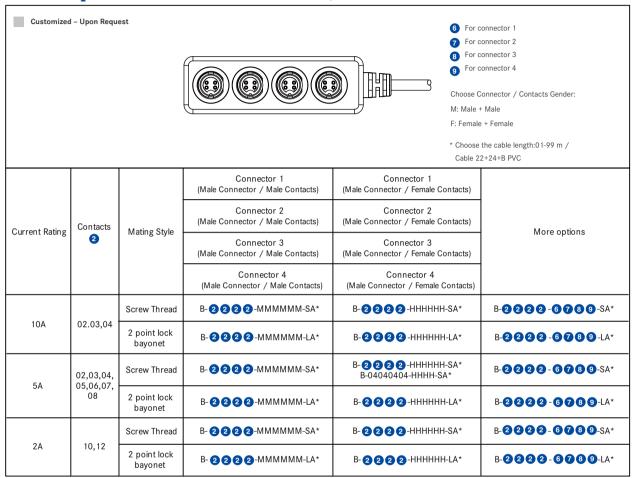


<sup>\*</sup> Design and specification are subject to change without notice.

# **Accessories - Multi-port**

#### Multi-port > Circular > Mini Size: 7/16"-28 UNS

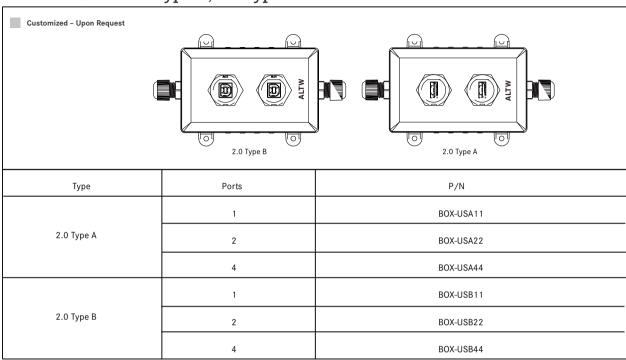




<sup>\*</sup> Design and specification are subject to change without notice.

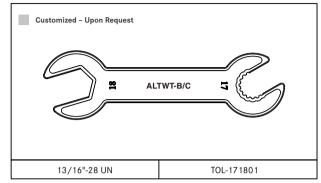
# **Accessories - Box**

## $\triangle$ Box > USB > 2.0 Type A, 2.0 Type B

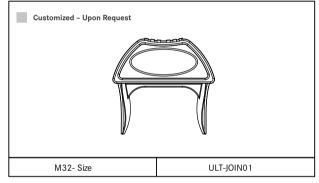


## **Accessories - Tool**

- **>>** Wrench > Circular > Standard Size: 5/8"-27 UNS
- Customized Upon Request ALTWT-B/C 5/8"-27 UNS TOL-171801
- 13/16"-28 UNS

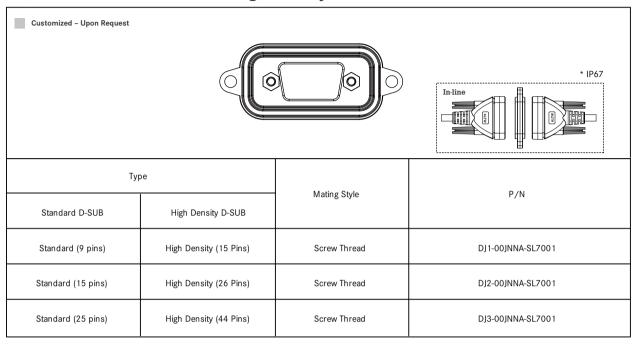


- 1"-20 UNEF
- Customized Upon Request altwt-d/e ₿ 1"-20 UNEF TOL-222901
- □ Unlock Tool > Cable Joiner > 8~10mm/10~12mm/12~16mm



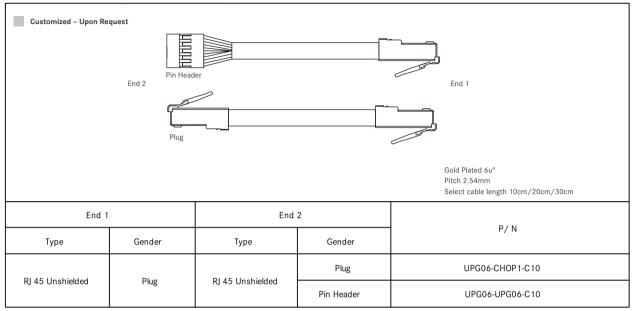
<sup>\*</sup> Design and specification are subject to change without notice.

# **Accessories - Joint**



# Accessories - Patch Cable (Double-ended)

## → Patch Cable (Double-ended) > RJ



<sup>\*</sup> Design and specification are subject to change without notice.

## **Glossary**

#### □ IP: IP65 • IP66 • IP67 • ALTW IP 68 (According to IEC 60950 standard.)

The IP Rating-Ingress Protection Rating, sometimes also interpreted as International Protection Rating, classifies and rates the degree of protection provided against the intrusion of solid objects (including body parts like hands and fingers), dust, accidental contact, and water in mechanical casings and with electrical enclosures.

The standard aims to provide users more detailed information than vague marketing terms such as waterproof.

IP65: No ingress of dust / Protected against low pressure jets of water.

IP66: No ingress of dust / Protected against powerful water jets.

IP67: No ingress of dust / Protected against harmful effects caused in 1M water within 30mins.

IP68: No ingress of dust / Protected against harmful effects caused in 1M water within 24hrs.

IP68 (Micro USB): No ingress of dust / Protected against harmful effects caused in 1M water within 2hrs.

.....

#### □ Waterproof mated / unmated

#### **Mated Waterproof:**

Waterproof is only assured when mated & locked tightly to its counterpart.

#### **Unmated Waterproof:**

Standalone waterproof or waterproof is assured even without its counterpart. The water will not get through the inner portion of the exposed connector as it is entirely sealed.

.....

#### **∠** UV Resistance

Being resistant to ultra violet (UV) light or sunlight. UV light, or sunlight, will cause non-resistant materials and surfaces to fade or discolor.

-----

#### **∨** IEC

Founded in 1906, the IEC (International Electrotechnical Commission) is the world's leading organization for the preparation and publication of International Standards for all electrical, electronic and related technologies. These are known collectively as "electrotechnology".

IEC provides a platform to companies, industries and governments for meeting, discussing and developing the International Standards they require. All IEC International Standards are fully consensus-based and represent the needs of key stakeholders of every nation participating in IEC work. Every member country, no matter how large or small, has one vote and a say in what goes into an IEC International Standard.

#### **□** UL 1977

These requirements cover single and multipole connectors, intended for factory assembly to copper or copper alloy conductors or printed wiring boards, for use in data, signal, control and power applications within and between electrical equipment.

#### □ ODVA

Founded in 1995, ODVA is a global association whose members are comprised of the world's leading automation companies. ODVA's mission is to advance open, interoperable information and communication technologies in industrial automation. ODVA recognizes its media independent network protocol, the Common Industrial Protocol or "CIP" – and the network adaptations of CIP – EtherNet/IP, DeviceNet, CompoNet and ControlNet – as its core technology and the primary common interest of its membership. ODVA's vision is to contribute to the sustainability and prosperity of the global community by transforming the model for information and communication technology in the industrial ecosystem.

ALTW ODVA connectors on P8-11

#### **NMEA 2000**

NMEA 2000 is a protocol used to create a network of electronic devices—chiefly marine instruments—on a boat. Various instruments that meet the NMEA 2000 standard are connected to one central cable, known as a backbone. The backbone powers each instrument and relays data among all of the instruments on the network. This allows one display unit to show many different types of information. It also allows the instruments to work together, since they share data. NMEA 2000 is meant to be "plug and play" to allow devices made by different manufacturers to talk and listen to each other.

ALTW NMEA2000 connectors on P14-1

#### **△** Industrial Automation New Products

ALTW offers these all new Product features to IA and keeps on working at its best to satisfy the industries continuously growing field of applications:

- $^{*}$  M8/M12 Improved Cable Assy. with Hex nuts, overall molded connector and UL approved cables (for UL / CSA by Q2 2014)
- \* M8/M12 Ruggedized Distribution Boxes (for UL / CSA by Q4 2013)
- \* M12 High-Speed 8Pin (Up to 10GB Ethernet Application)
- \* M8 / M12 Field Installable in IDC Contacts (Pressed-In Conn.)

#### → Amphenol LTW's X-Lok waterproof connector

"Click" when locking, for effort-saving and speed up. ALTW has X-Lok version for "3 Point Lock".

ALTW X-Lok connectors on P20-1

#### △ Amphenol LTW's 3 Point Lock waterproof connector

To enhance the efficiency and improve the stability of Mating with Lock function, ALTW has the 3 Point Lock design to have better connector mating function.

ALTW provides Cable-to-Cable currently.

#### △ Amphenol LTW's RBL waterproof connector

Audible "Click" when locking; push both sides of the "Snap Lock" when unlocking. The creative design is effort-saving and speeds up the traditional connector locking nut function; furthermore, "Dual Snap Lock" is durable and protects from accidental loosing.

• ALTW RBL connectors on P19-1

#### △ Amphenol LTW waterproof connector : Mating with lock

"Secured connector mating" product locking mechanisms provides complete connector fastening for assured continuous transmission and reliable waterproof function.

• ALTW Power connector (PWII): P2-13 / P2-14

• ALTW VTC I T-Junction PT: P15-10

ALTW VTC I SMC: P15-10
ALTW BMC: P15-13
Cable Joiner: P21-26

#### △ Amphenol LTW's Hybrid waterproof connector

A connector that contains contacts for more than one type of service. Note: Examples of hybrid connectors are those that have contacts for both optical fibers and twisted pairs, electric power and twisted pairs, or shielded and unshielded twisted pairs.

 ALTW Hybrid connectors Circular series: P1-1

(5A+2A / 10A+2A / 10A+5A / 20A+2A / 20A+5A)

Power series: P2-1

(20A+2A)

# **Appendix**

### **△** Standard Cable List

Product	Item No.	Jacket	Color	UL No.	Cable Spec.	Cable	Note
Series	NAC A O A O ZI IV O A	D) (O	Disale	111.0474	0 / ANNO * 40 + Due to + Al - Ad-lan	OD	Oissulas Misi Oissulas Advis
Circular Circular	WCA0487UV01 WCA0486UV01	PVC	Black Black	UL2464 UL2464	26AWG*4C+Drain+AL.Mylar 26AWG*5C+Drain+AL.Mylar	4.8	Circular Mini Size / 2A / 4pin Circular Mini Size / 2A / 5pin
Circular	WCA04860V01	PVC	Black	UL2464	26AWG*6C+Drain+AL.Mylar	5.0	Circular Mini Size / 2A / 5pin
					,		Circular Mini Size / 2A / Opin
Circular	WCA0072UV01	PVC	Black	UL2464	24AWG*2C+Drain+AL.Mylar	4.2	Circular Standard Size / 5A / 2pin
Circular	WCA0549UV01	PVC	Black	UL2464	24AWG*3C+Drain+AL.Mylar	4.5	Circular Mini Size / 5A / 3pin Circular Standard Size / 5A / 3pin
Circular	WCA0219UV01	PVC	Black	UL2464	24AWG*4C+Drain+AL.Mylar	5.8	Circular Mini Size / 2A / 4pin Circular Standard Size / 5A / 4pin
Circular	WCA0217UV01	PVC	Black	UL2464	24AWG*6C+Drain+AL.Mylar	5.8	Circular Mini Size / 2A / 6pin Circular Standard Size / 5A / 6pin
Circular	WCA0543UV01	PVC	Black	UL2464	26AWG* 10C+Drain+AL.Mylar	6.0	Circular Standard Size / 2A / 10pin
Circular	WCA0544UV01	PVC	Black	UL2464	26AWG* 12C+Drain+AL.Mylar	6.0	Circular Standard Size / 2A / 12pin
Circular	WCA00010897	PVC	Black	UL1277,UL15 81&UL83	18AWG*3C	8.5	Circular Standard Size / 5A / 3pin
Circular	WCA00010898	PVC	Black	UL1277,UL15 81&UL83	18AWG*4C	9.2	Circular Standard Size / 5A / 4pin
Circular	WCA0551UV01	PVC	Black	UL2464	24AWG*5C+Drain+AL.Mylar	5.0	Circular Standard Size / 5A / 5pin
Circular	WCA0124UV01	PVC	Black	UL2464	20AWG*2C+Drain+AL.Mylar	5.8	Circular Standard Size / 10A / 2pin
Circular	WCA0489UV01	PVC	Black	UL2464		5.0	Circular Standard Size / 10A / 3pin
Circular	WCA0584UV01	PVC	Black	UL2464	26AWG*6C+24AWG*2C+Drain+AL.Mylar	5.5	Circular Standard Size / 5A+2A / 8pin
Circular	WCA0585UV01	PVC	Black	UL2464	24AWG*4C+20AWG*2C+Drain+AL.Mylar	6.0	Circular Standard Size / 10A+5A / 6pin
Circular	WCA0087UV01	PVC	Black	UL2464	24AWG*7C+Drain+AL/Mylar	5.8	Circular Standard Size / 5A / 7pin Circular Middle Size / 5A / 7pin
Circular	WCA0003UV01	PVC	Black	UL2464	24AWG*8C+Drain+AL/Mylar	5.5	Circular Standard Size / 5A / 8pin
Circular	WCA0575UV01	PVC	Black	UL2464	20AWG*4C+Drain+AL.Mylar	5.5	Circular Middle Size / 5A / 8pin Circular Standard Size / 10A / 4pin
					<u> </u>		Circular Middle Size / 10A / 4pin
Circular	WCA0528UV01	PVC	Black	UL2464	24AWG*9C+Drain+AL.Mylar	6.0	Circular Middle Size / 5A / 9pin
Circular	WCA0556UV01	PVC	Black	UL2464	24AWG* 10C+Drain+AL.Mylar	6.5	Circular Middle Size / 5A / 10pin
Circular	WCA0557UV01	PVC	Black	UL2464	24AWG* 12C+Drain+AL.Mylar	7.0	Circular Middle Size / 5A / 12pin Circular Middle Size / 5A+2A / 12pin
Circular	WCA0558UV01	PVC	Black	UL2464	24AWG* 14C+Drain+AL.Mylar	7.0	Circular Middle Size / 5A / 14pin Circular Middle Size / 5A+2A / 14pin
Circular	WCA0576UV01	PVC	Black	UL2464	20AWG*5C+Drain+AL.Mylar	6.0	Circular Middle Size / 10A / 5pin
Circular	WCA0577UV01	PVC	Black	UL2464	20AWG*6C+Drain+AL.Mylar	6.5	Circular Middle Size / 10A / 6pin
Circular	WCA00010710	PVC	Black	UL2464	(2P*24AWG+Drain+AL)+3C*16AWG+Filler+Pa	12.0	Circular Middle Size / 10A+2A / 8Pin
Circular	WCA0042UV01	PVC	Black	UL2464	24AWG*6C+20AWG*2C+Drain+AL.Mylar	6.0	Circular Middle Size / 10A+5A / 8pin Circular Others / 10A+5A / 8pin
Circular	WCA0560UV01	PVC	Black	UL2464	24AWG*18C+Drain+AL.Mylar	8.0	Circular Middle Size / 2A / 18pin Circular Large Size / 5A / 18pin
Circular	WCA0264UV01	PVC	Black	UL2464	16AWG*2C+Talcum	5.8	Circular Middle Size / 20A / 2pin Circular Large Size / 20A / 2pin
Circular	WCA0579UV01	PVC	Black	UL2464	16AWG*3C+Drain+AL.Mylar	7.5	Circular Middle Size / 20A / 3pin Circular Large Size / 20A / 3pin
Circular	WCA00010045	PVC	Black	UL2464	26AWG*22C+Drain+AL.Mylar	7.5	Circular Large Size / 20A / 3pm
Circular	WCA00010045 WCA0285UV01	PVC	Black	UL2464 UL2464	16AWG*4C+AL.Mylar	7.5	Circular Large Size / ZA / 20~22pm
Circular	WCA02850V01	PVC	Black	UL2464 UL2464	16AWG*5C+Talcum	7.8	Circular Large Size / 20A / 4pm
Circular	WCA02830V01	PVC	Black	UL2464 UL2464	16AWG*6C+Filler+Drain+AL.Mylar	9.5	Circular Large Size / 20A / 5pin
Circular	WCA0582UV01	PVC	Black	UL2464 UL2464	16AWG*7C+Drain+AL.Mylar	9.5	Circular Large Size / 20A / opin Circular Large Size / 20A / 7pin
Circular	WCA05830V01	PVC	Black	UL2464 UL2586		10.0	
Ollouidi	WGAUUU 10870				(24AWG*1P+A)*2C+16AWG*3C+EA (24AWG*4P+Drain+AL)+16AWG*3C+Filler+Pa		Circular Large Size / 20A+2A / 8pin
Circular	WCA00010635	PVC	Black	UL2464	per	11.0	Circular Large Size / 20A+5A / 12pin
Circular	WCA0449UV01	PVC	Black	UL2464	26AWG*31C+Drain+AL.Mylar	9.0	Circular Macro Size / 5A / 31pin
Circular	WCA0577UV01	PVC	Black	UL2464	20AWG*6C+Drain+AL.Mylar	6.5	Circular RBL / 5A / 6pin
Circular	WCA0485XX01	PVC	Black	UL2464	14AWG*3C+Talcum	7.0	Circular X-Lock / 20A / 3pin

<sup>\*</sup> Design and specification are subject to change without notice.

Product Series	Item No.	Jacket	Color	UL No.	Cable Spec.	Cable OD	Note
Power	WCA0576UV01	PVC	Black	UL2464	20AWG*5C+Drain+AL.Mylar	6.0	Power / 8A / 5pin
Power	WCA0577UV01	PVC	Black	UL2464	20AWG*6C+Drain+AL.Mylar	6.5	Power / 8A / 6pin
Power	WCA00010049	PVC	Black	UL2464	20AWG*7C+Drain+AL.Mylar	6.5	Power / 8A / 7pin
Power	WCA0264UV01	PVC	Black	UL2464	16AWG*2C+Talcum	5.8	Power / 12A / 2pin
Power	WCA0579UV01	PVC	Black	UL2464	16AWG*3C+Drain+AL.Mylar	7.5	Power / 12A / 3pin
Power	WCA0285UV01	PVC	Black	UL2464	16AWG*4C+AL.Mylar	7.5	Power / 12A / 4pin
Power	WCA0485XX01	PVC	Black	UL2464	14AWG*3C+Talcum	7.0	Power / 20A / 3pin
Power	WCA00010846	PVC	Black	UL1277,UL15 81&UL83	14AWG*3C	9.7	Power / 20A / 3pin
Power	WCA0579UV01	PVC	Black	UL2464	16AWG*3C+Drain+AL.Mylar	7.5	Power / 20A+2A / 4pin
Power	WCA00010899	PVC	Black	UL1277,UL15 81,UL83	14AWG*3C+16AWG*1C	10.3	Power / 20A+2A / 4pin
Power	WCA00010239	PVC	Black	-	SJT 10AWG*3C+Talc	15.6	Power / 25A / 3pin
Sensor	WCA0570UV01	PVC	Black	UL2464	22AWG*3C+Talcum	5.0	Sensor M8 / 5A / 3pin
Sensor	WCA00010063	PU	Black	NONUL	22AWG*3C+Talcum	4.5	Sensor M8 / 5A / 3pin
Sensor	WCA0571UV01	PVC	Black	UL2464	22AWG*4C+Talcum	5.0	Sensor M8 / 5A / 4pin
Sensor	WCA00010062	PU	Black	NONUL	22AWG*4C+Insulation	4.8	Sensor M8 / 5A / 4pin
Sensor	WCA0027UV01	PVC	Black	UL2464	24AWG*2C+Talcum	4.2	Sensor M10.5 / 2A / 2pin
Sensor	WCA0006UV01	PVC	Black	UL2464	24AWGx3C+Talcum	4.5	Sensor M10.5 / 2A / 3pin
Sensor	WCA0036UV01	PVC	Black	UL2464	24AWG*4C+Talcum	5.0	Sensor M10.5 / 2A / 4pin
Sensor	WCA0229UV01	PVC	Black	UL2464	24AWG*5C+Talcum	5.0	Sensor M10.5 / 2A / 5pin
Sensor	WCA0570UV01	PVC	Black	UL2464	22AWG*3C+Talcum	5.0	Sensor M12 / 5A / 3pin
Sensor	WCA00010063	PU	Black	NONUL	22AWG*3C+Talcum	4.5	Sensor M12 / 5A / 3pin
Sensor	WCA0571UV01	PVC	Black	UL2464	22AWG*4C+Talcum	5.0	Sensor M12 / 5A / 4pin
Sensor	WCA00010062	PU	Black	NONUL	22AWG*4C+Insulation	4.8	Sensor M12 / 5A / 4pin
Sensor	WCA0521UV01	PVC	Black	UL2464	22AWG*5C+Talcum	5.5	Sensor M12 / 5A / 5pin
Sensor	WCA00010061	PU	Black	NONUL	22AWG*5C+Filler+Talcum+Paper	5.0	Sensor M12 / 5A / 5pin
Sensor	WCA0203UV01	PVC	Black	UL2464	24AWG*8C+Talcum	5.5	Sensor M12 / 2A / 8pin
	WCA02030V01	PU	Black	NONUL	24AWG*8C+Paper+Filler	6.0	Sensor M12 / 2A / 8pin
Sensor Sensor	WCA00010080	PVC	Black	UL2464	22AWG*3C+Drain+AL.Mylar	4.5	Sensor M12 Shielded / 5A / 3pin
	WCA00010209	PU	Black	NONUL	•	4.5	· · · · ·
Sensor	WCA00010139	PVC	Black	UL2464	22AWG*3C+Drain+AL.Mylar 22AWG*4C+Drain+AL.Mylar	5.5	Sensor M12 Shielded / 5A / 3pin Sensor M12 Shielded / 5A / 4pin
Sensor		PU	Black	NONUL	-	4.5	Sensor M12 Shielded / 5A / 4pin
Sensor	WCA00010140	_			22AWG*4C+Drain+AL.Mylar	5.5	
Sensor	WCA0569UV01	PVC	Black	UL2464	22AWG*5C+Drain+AL.Mylar		Sensor M12 Shielded / 5A / 5pin
Sensor	WCA00010141	PU	Black	NONUL	22AWG*5C+AL.Mylar+Drain	5.2	Sensor M12 Shielded / 5A / 5pin
Sensor	WCA0003UV01	PVC	Black	UL2464	24AWG*8C+Drain+AL/Mylar	5.5	Sensor M12 Shielded / 2A / 8pin
Sensor	WCA00010142	PU	Black	NONUL	24AWG*8C+Drain+AL.Mylar	5.5	Sensor M12 Shielded / 2A / 8pin
Sensor	WCA0352XX02	PU	Black	NONUL	22AWG*5C+Talcum	5.0	Sensor M12 Y Cable / 5A / 5pin
Sensor	WCA0251XX02	PU	Black	NONUL	24AWG*8C+Paper	5.2	Sensor M12 Y Cable / 2A / 8pin
USB	WCA0365UV01	PVC	Black	-	28AWG*1P+24AWG*2C+AL.Mylar+Drain+Brai d (USB 2.0)	5.0	USB / 2.0
IEEE 1394	WCA00010037	PVC	Black	-	(28AWG*1P+AL+B)*2+22AWG*2C+Tran.Myla r+AL+B)	6.5	IEEE 1394
D-SUB	WCA0528UV01	PVC	Black	UL2464	24AWG*9C+Drain+AL.Mylar	6.0	D-SUB Standard / 09pin
D-SUB	WCA0465UV01	PVC	Black	UL2464	24AWG* 15C+Drain+AL.Mylar	7.0	D-SUB Standard / 15pin
D-SUB	WCA0284UV01	PVC	Black	UL2464	24AWG*25C+Drain+AL.Mylar	9.0	D-SUB Standard / 25pin
D-SUB	WCA00010114	PVC	Black	UL2464	24AWG*37C+Drain+AL/Mylar	8.5	D-SUB Standard / 37pin
D-SUB	WCA00010080	PVC	Black	UL2464	(24AWG*25C+Mylar)+24AWG*25C+Drain+Al. Mylar	12.0	D-SUB Standard / 50pin
D-SUB	WCA0545UV01	PVC	Black	UL2464	26AWG* 15C+Drain+AL.Mylar	6.5	D-SUB High Density / 15pin
D-SUB	WCA0546UV01	PVC	Black	UL2464	26AWG*26C+Drain+AL.Mylar	8.0	D-SUB High Density / 26pin
D-SUB	WCA0547UV01	PVC	Black	UL2464	26AWG*44C+Drain+AL.Mylar	10.5	D-SUB High Density / 44pin
D-SUB	WCA00010115	PVC	Black	UL2464	(26AWG*31C+Mylar)+26AWG*31C+Drain+AL	13.0	D-SUB High Density / 62pin
D-SUB	WCA00010081	PVC	Black	UL2464	{(28AWG*28C+Mylar)+28AWG*22C+Mylar}+ 28AWG*28C+Drain+AL	13.0	D-SUB High Density / 78pin

Product Series	Item No.	Jacket	Color	UL No.	Cable Spec.	Cable OD	Note
DVI	WCA00010095	PVC	Black	UL20276	(28AWG*1P+Drain+AL+Mylar)*4C+(1P+3C)* 28AWG+AL+Braid	7.3	DVI / 19pin
DVI	WCA00010096	PVC	Black	UL20276	[3COAX+(1P*28AWG+Drain+AL.Mylar+Mylar) *4+1P*28#+6C*28AWG]+AL.Mylar+Braid	8.5	DVI / 23pin
DVI	WCA00010097	PVC	Black	UL20276	(28AWG*1P+Drain+AL+Mylar)*7C+28AWG*1 P+28AWG*3C+AL+Braid	8.5	DVI / 25pin
DVI	WCA00010098	PVC	Black	UL20276	[3COAX+(28AWG*1P+Drain+AL+Mylar)*7+28 AWG*1P+28AWG*6C]+AL+Braid	10.0	DVI / 29pin
RJ	WCA0663UV01	PVC	Black	-	CAT.5E UTP 24AWG*4P	6.0	RJ / Cat.5E
RJ	WCA0664UV01	PVC	Black	-	CAT.5E FTP 24AWG*4P+Mylary+D+AL/Mylar	6.5	RJ / Cat.5E
RJ	WCA00010356	PVC	Black	-	CAT.5E FTP 24AWG*5P+Mylar+Drain+AL.Mylar	6.5	RJ / Cat.5E
HDMI	WCA00010264	PVC	Black	UL20276	(26AWG*1P+Drain+AL+Mylar)*4C+26AWG*1 P+26AWG*5C+AL+Braid	8.5	HDMI / 19pin
NMEA	WCA00010257	PVC	Black	-	{(24AWG+1P+AL)+(22AWG+1P+AL)}+Drain+A L.Mylar+Braid	6.0	NMEA / 4A / 5pin
NMEA	WCA00010258	PVC	Black	-	{(22AWG+1P+AL)+(18AWG+1P+AL)}+Drain+A L.Mylar+Braid	7.0	NMEA / 4A / 5pin
NMEA	WCA00010437	PVC	Gray	-	${(24AWG+1P+AL)+(22AWG+1P+AL)}+Drain+Br$ aid+Mylar	7.1	NMEA / 4A / 5pin
NMEA	WCA00010369	PVC	Black	-	STOOW 16AWG*4C	10.6	NMEA / 8A / 4pin
NMEA	WCA00010259	PVC	Black	UL20276	[(18AWG*1P+AL)+(16AWG*1P+AL)]+Drain+A L+Braid	10.0	NMEA / 8A / 5pin
NMEA	WCA00010436	PVC	Gray	-	{(18AWG+1P+AL)+(15AWG+1P+AL)}+Drain+Br aid	12.2	NMEA / 8A / 5pin
Coaxial	WCA0033XX01	PVC	Black	-	20AWG,RG-58/U1	5.0	Coaxial / 50Ω
Coaxial	WCA0009XX04	PVC	Black	-	RG-59U 1C+Braid	6.15	Coaxial / 75Ω
Coaxial	WCA0445XX01	PVC	Black	UL1185	26AWG* 1C+Spiral	3.0	Coaxial / RCA
DC-JACK	WCA0072UV01	PVC	Black	UL2464	24AWG*2C+Drain+AL.Mylar	4.2	DC-JACK / 2pin,14pin
DC-JACK	WCA0549UV01	PVC	Black	UL2464	24AWG*3C+Drain+AL.Mylar	4.5	DC-JACK
KSZ Circular	WCA00010022	PVC	Black	UL2464	18AWGx2C+AL.Mylar	5.5	KSZ Circular / 10A / 2pin
	WCA0242XX01	PVC	Black	UL2464	18AWG*3C+AL.Mylar	6.0	KSZ Circular / 10A / 3pin
KSZ Circular	WCA0416XX01	PVC	Black	UL2464	18AWG*4C+Drain+AL.Mylar	6.5	KSZ Circular / 10A / 4pin
Low Profile	WCA0542UV01	PVC	Black	UL2464	26AWG*8C+Drain+AL.Mylar	5.5	Low Profile / 1A / 8pin
Low Profile Mini Din	WCA0543UV01	PVC	Black	UL2464	26AWG* 10C+Drain+AL.Mylar	6.0 4.8	Low Profile / 1A / 10pin
Mini Din	WCA0487UV01 WCA0486UV01	PVC	Black Black	UL2464 UL2464	26AWG*4C+Drain+AL.Mylar 26AWG*5C+Drain+AL.Mylar	4.8	Mini Din / 4pin Mini Din / 5pin
Mini Din	WCA04860V01	PVC	Black	UL2464	26AWG*6C+Drain+AL.Mylar	5.0	Mini Din / 6pin
Mini Din	WCA05400V01	PVC	Black	UL2464	26AWG*7C+Drain+AL.Mylar	5.0	Mini Din / 7pin
Mini Din	WCA05410V01	PVC	Black	UL2464	26AWG*8C+Drain+AL.Mylar	5.5	Mini Din / 8pin
Solar	WCA00010897	PVC	Black	UL1277,UL15 81&UL83	18AWG*3C	8.5	Solar / 3pin
Solar	WCA00010898	PVC	Black	UL1277,UL15 81&UL83	18AWG*4C	9.2	Solar / 4pin
Solar	WCA00010894	PVC	Black	UL1277,UL15 81&UL83	12AWG*3C	11.0	Solar / 17A / 3pin
Solar	WCA00010895	PVC	Black	UL1277,UL15 81&UL83	12AWG*4C	12.0	Solar / 17A / 4pin
Solar	WCA00010373	TPE-U	Black	-	12AWG* 1C	6.5	Solar / 1Pin
Solar	WCA00010593	XLPO	Black	-	12AWG*1C	6.1	Solar / 1Pin
Solar	WCA00010750	XLPO	Black	-	12AWG* 1C	6.3	Solar / 1Pin
Solar	WCA00010430	XLPO	Black	-	12AWG* 1C	6.8	Solar / 1Pin

<sup>\*</sup> Design and specification are subject to change without notice.

## **△** Maximum Wire Copper OD Size

Product Series	Categories	Sub-Categories	Solder Pin: Maximum Copper OD within allowed current rating (Unit: mm)	Screw Pin: Maximum Copper OD within allowed current rating (Unit: mm)
Circular Connectors	Mini (A) - Size	AD	1.00	-
Circular Connectors	Mini (A) - Size	AU	0.80	-
Circular Connectors	Standard (B) - Size	BB	1.30	-
Circular Connectors	Standard (B) - Size	BD	1.00	-
Circular Connectors	Standard (B) - Size	BB	1.30	-
Circular Connectors	Standard (B) - Size	BBD	1.00	-
Circular Connectors	Standard (B) - Size	BD	1.00	-
Circular Connectors	Standard (B) - Size	BDU	1.00	-
Circular Connectors	Standard (B) - Size	BU	0.80	-
Circular Connectors	Middle (C) - Size	CBU	1.3/0.8	-
Circular Connectors	Middle (C) - Size	СВ	1.30	-
Circular Connectors	Middle (C) - Size	CC	1.70	2.00
Circular Connectors	Middle (C) - Size	CD	1.00	-
Circular Connectors	Middle (C) - Size	CU	0.80	-
Circular Connectors	Middle (C) - Size	CDU	1.0/0.8	-
Circular Connectors	Large (D) - Size	DCD	1.7/1.0	-
Circular Connectors	Large (D) - Size	DCU	1.7/0.8	-
Circular Connectors	Large (D) - Size	DC	1.70	2.00
Circular Connectors	Large (D) - Size	DD	1.00	-
Circular Connectors	Large (E) - Size	ED	1.00	-
M Series Sensor Connectors	M8	8P	0.80	-
M Series Sensor Connectors	M12	12,12B,12D,12B,SBP,SDP	1.00	1.10
M Series Sensor Connectors	M20	HB20,HC20,HD20,LB20,LC20,LD20	1.70	2.00
M Series Sensor Connectors	M23	LJ23	-	-
Power Connectors	20A+2A	PWCU	1.7/0.8	-
Power Connectors	30A	PWL	3.60	-
Power Connectors	30A	PWJ	-	2.60
Power Connectors	25A	PWH	2.60	-
Power Connectors	20A	PWC	1.70	-
Power Connectors	8A	PWE	1.20	1.10
Power Connectors	12A	PWF	1.60	1.60
Power Connectors	16A	PWG	2.00	2.00
NMEA 2000 Connectors	Micro	12,12P	1.00	-
D-SUB Connectors	Standard	SDB-09	1.00	-
D-SUB Connectors	Standard	SDB-15,SDB-25	1.00	-
D-SUB Connectors	Standard	SDB-15	1.00	-
D-SUB Connectors	High Density	HDB-15	1.00	-
D-SUB Connectors	High Density	HDB-26,HDB-44	1.00	-
D-SUB Connectors	High Density	HDB-26	1.00	-

#### **△** Cable Max. OD for Filed Installable

Product Series	Categories	Sub-Categories	Cable OD
Circular Connectors	Mini (A) - Size	AD,AU	4.5~6.5
Circular Connectors	Standard (B) - Size	BB,BD	3.5~6.5
Circular Connectors	Standard (B) - Size	BB,BBD,BD,BDU,BU	4.5~6.5
Circular Connectors	Middle (C) - Size	CBU	7.6~9.6
Circular Connectors	Middle (C) - Size	CB,CC,CD,CU,CDU	4.0~9.6
Circular Connectors	Large (D) - Size	DCD	10.0~12.4
Circular Connectors	Large (D) - Size	DCU	9.5~10.8
Circular Connectors	Large (D) - Size	DC,DD	9.5~10.8
Circular Connectors	Large (E) - Size	None	None
Circular Connectors	Other - Size	PLD	4.5~6.5
M Series Sensor Connectors	M8	8P	4.5~6.5
M Series Sensor Connectors	M12	12,12B,12D,12B,SBP,SDP	4.5~6.5
M Series Sensor Connectors	M20	HB20,HC20,HD20,LB20,LC20,LD20	5.5~12.5
M Series Sensor Connectors	M23	LJ23	8.5~17.5
Power Connectors	20A+2A	PWCU	4.0~9.6 , 10~19
Power Connectors	30A	PWL	10~19
Power Connectors	30A	PWJ	9.0~12.0,13~16
Power Connectors	25A	PWH	9.0~12.0,13~16
Power Connectors	20A	PWC	4.0~9.6
Power Connectors	8A	PWE	5.5~10.8
Power Connectors	12A	PWF	5.5~10.8
Power Connectors	16A	PWG	6.0~12.5
USB Connectors	Mini USB 2.0 B Type	NUB	3.5~5.5
USB Connectors	USB 2.0 A Type	UA	5.0~10.8
USB Connectors	USB 2.0 B Type	UB	5.0~10.8
NMEA 2000 Connectors	Micro	12,12P	4.5~6.5
NMEA 2000 Connectors	Mini	MN	8.0~11.0
NMEA 2000 Connectors	Micro	UMC	4.5~7.5
NMEA 2000 Connectors	Mini	UMN	8~12.2
D-SUB Connectors	Standard	SDB-09	3.5~7.0
D-SUB Connectors	Standard	SDB-15,SDB-25	6.0~10.0
D-SUB Connectors	Standard	SDB-15	6.0~8.0
D-SUB Connectors	High Density	HDB-15	3.5~7.0
D-SUB Connectors	High Density	HDB-26,HDB-44	6.0~10.0
D-SUB Connectors	High Density	HDB-26	6.0~8.0
IEEE 1394 Connectors	IEEE 1394B	13-	6.0~10.0
Fiber Optic Connectors	LC Type	FB-	2.5~2.8,4.5~6.8
Fiber Optic Connectors	SC Type	FB-	2.0~2.4
Cable Joiner	6~10mm	CX	6~10
Cable Joiner	8~10mm	CX	8~10
Cable Joiner	10~12mm	CX	10~12
Cable Joiner	12~16mm	CX	12~16
RJ Connector	-	RCP,RDP,ROP	4.5~6.5

<sup>\*</sup> Design and specification are subject to change without notice.

# **Quick Search (Circular Connector)**

### ☑ In-line

Size	Mating Style	Connector (Housing) Gender / Contact Gender	Overmolded with Cable / Field Installable	То	Mating Pair	Page
Mini Size (A)	2 Points Lock	MM	Overmolded with Cable	To	Overmolded with Cable & Field Installable	1-14
7/16"-28 UNS	2 FUIITS LUCK	FF	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-14
		MM	Overmolded with Cable	To	Overmolded with Cable & Field Installable	1-16
Standard Size (B)		IVIIVI	Field Installable	То	Overmolded with Cable & Field Installable	1-16
5/8"-27 UNS	2 Points Lock	FF	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-17
3/0 -2/ 0103		11	Field Installable	То	Overmolded with Cable & Field Installable	1-17
		FM	Overmolded with Cable	To	Overmolded with Cable & Field Installable	1-18
		ММ	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-22
	2 Points Lock	IVIIVI	Field Installable	To	Overmolded with Cable & Field Installable	1-22
Middle Size (C)		FF	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-22
13/16"-28 UNS			Field Installable	То	Overmolded with Cable & Field Installable	1-23
		MF	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-23
		FM	Overmolded with Cable	To	Overmolded with Cable & Field Installable	1-23
		MM	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-29
		FF	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-29
		MF	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-29
Large Size (D)	l	FM	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-30
1"-20UNEF	2 Points Lock	MD*	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-30
		IVID	Field Installable	То	Overmolded with Cable & Field Installable	1-30
		ME*	Overmolded with Cable	То	Overmolded with Cable & Field Installable	1-31
		IVIE^	Field Installable	То	Overmolded with Cable & Field Installable	1-31

<sup>\* (</sup>E) Male (Power) + Female (Signal) I (D) Female (Power) + Male (Signal)

## ightharpoonup Receptacle and Maing Pair

Size	Mating Style	Connector (Housing) Gender / Contact Gender	Receptacle / Receptacle with Overmolded Cable	То	Mating Pair	Page	
Mini Size (A)	Screw Thread /	ММ	Receptacle	То	Overmolded with Cable & Field Installable	1-15	
7/16"-28 UNS	2 Points Lock	IVIIVI	Receptacle with Overmolded Cable	То	Overmolded with Cable & Field Installable	1-15	
	Community Thomas all (	мм	Receptacle	То	Overmolded with Cable & Field Installable	1-19	
Standard Size (B) 5/8"-27 UNS	Screw Thread / 2 Points Lock	IVIIVI	Receptacle with Overmolded Cable	То	Overmolded with Cable & Field Installable	1-20	
3/6 -2/ UNS	Z POIITES LOCK	MF	Receptacle	То	Overmolded with Cable & Field Installable	1-21	
		мм	Receptacle	То	Overmolded with Cable & Field Installable	1-24	
	Screw Thread /	IVIIVI	Receptacle with Overmolded Cable	То	Overmolded with Cable & Field Installable	1-25	
Middle Size (C)	2 Points Lock	MF	Receptacle	То	Overmolded with Cable & Field Installable	1-26	
13/16"-28 UNS		IVIF	Receptacle with Overmolded Cable	То	Overmolded with Cable & Field Installable	1-27	
	3 Points Lock	3 Points Lock	MD*	Receptacle	То	Overmolded with Cable & Field Installable	1-28
			ME	Receptacle	То	Overmolded with Cable & Field Installable	1-28
	Screw Thread /	MM	Receptacle	То	Overmolded with Cable & Field Installable	1-32	
Large Size (D)	2 Points Lock	MF	Receptacle	То	Overmolded with Cable & Field Installable	1-33	
1"-20UNEF	2 Points Lock	MD*	Receptacle	То	Overmolded with Cable & Field Installable	1-34	
	2 Points Lock	ME*	Receptacle	То	Overmolded with Cable & Field Installable	1-34	
Micro Size <b>(E)</b> 1 3/16"-20 UNS	2 Points Lock	MF	Receptacle	То	Overmolded with Cable & Field Installable	1-34	

<sup>\* (</sup>E) Male (Power) + Female (Signal) I (D) Female (Power) + Male (Signal)



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