

Our trademark DECA[®] stands for superb quality a symbol signifying our full commitment and responsibility for each piece of our products in consideration of the wide usage of switches and indicators which are almost indispensable to electrical control facilities for machinery equipment

it is absolutely necessary to install switches and indicators with superb quality and appearance onto the machinery equipments which will not only increase appearance and the added values but also will minimize maintenance costs in future in addition to a direct contribution to better profitability of the products.

It is therefore essential for engineers and machine designers to make meticulous selection of the most reliable switches and indicators.



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16 SERIES PUSHBUTTON SWITCHES AND INDICATORS



18 × 18



φ 18



18 × 24

According to performance, 16 series pushbutton switches can be further categorized into the following 3 types:

- (1) Illuminated push-button switch (Momentary or Alternate action)
- (2) Non-illuminated push-button switch (Momentary or Alternate action)
- (3) Pilot indicators.

In terms of shapes our products can be divided into three types.

- (1) Round type (Dia 18mm)
- (2) Rectangular type (18 × 24mm)
- (3) Square type (18 × 18mm)

The aforesaid big variety offers a high flexibility for you to meet the actual requirements for functions and shapes. However, the mounting hole diameter for all the products is 16mm. For the mounting, just have the nut at the rear of the panel fastened in a very convenient way.

Our contactors are with quality silver contact points so as to ensure electrical stability and the life span. Each contact block has N.C(Normal Close) contact points and N.O.(Normal Open)contact points. Code number 1-2 for wiring stand for N.C. contact points; whereas 3-4 stand for N.O. contact points Each switch may have a maximum of 4 contact blocks: which means that total contact points will have 4 NC's and 4 NO's As each block is of independent device, wiring work can be done simultaneously by use of different voltages, but the contact points for N.C. or N.O. of the contact block must not be simultaneously connected to different voltages, except for the voltage lower than 40V AC/DC. The tags with code a-b are exclusively for indicators: if LED is to be used as the indicator, then tag b is positive pole. Push-cap can be replaced, and legend plate can be inserted between color cap and lens.



indicator



1 pole



2 poles



3 poles



4 poles

Product specifications:

- Switch system : Each contact block has one double break snap action switching mechanism.
- Switch mode : Momentary or alternate action, 1-4 poles
- Contact material : Soldering type - silver is standard; socket type - pin with golden plating.
- Body material : High-grade temperature resistant thermoplastic. Contact housing moulded in electrical high-grade thermosetting plastic.
- Operating travel : 3.0 mm.
- Actuating force : 2-5N depending on no. of contact block.
- Mechanical lifetime : > 2 million operations.
- Electrical life time :

alternate action	momentary action
5A/250V AC > 5.0 × 10 ⁴ operations	> 2.5 × 10 ⁴ operations
4A/250V AC > 1.2 × 10 ⁵ operations	> 6.0 × 10 ⁴ operations
2A/250V AC > 4.0 × 10 ⁵ operations	> 2.0 × 10 ⁵ operations
1A/250V AC > 8.0 × 10 ⁵ operations	> 4.0 × 10 ⁵ operations
- Initial contact resistance : < 10m Ω current 1A AC, according to IEC-341 test 1, silver contact.
< 15m Ω 20mV, according to IEC 341-1 test II, gold contact
- Terminal : diameter of wire 2 × 0.8mm
diameter of standard cable 0.75mm² max.
- Electric rating : 250V AC 5A 125V AC 8A
250V DC 0.2A 24V DC 6A.
- Max torque of nut : maximum 15kgfcm
- Max. insulation voltage : 2000V, 60Hz, 1 min. between all terminals and ground.
- Acceleration : > 10g in all 3 planes
- Vibration resistance : IEC 68-2-6 test.
- Soldering heat resistance : 280 °C 4 ses
- Insulation resistance : IEC 341-1, > 1000 megaohms 500V DC.
- Panel thickness : 8 mm max.
- Degree of protection : IP 40
- Storage temperature : -40 °C to +85 °C
- Operating temperature : -25 °C to +55 °C with lamp -25 °C to +70 °C without lamp

*Alternate action: push-on, push-off

SOLDERING TYPE ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Round

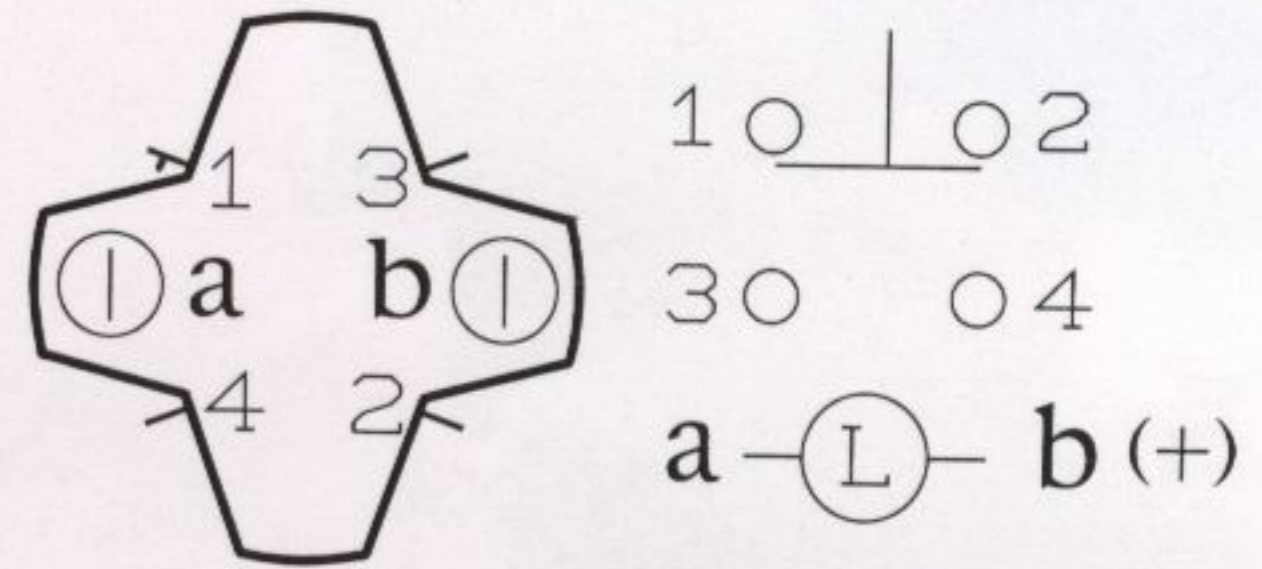


Accessories see page 13~14

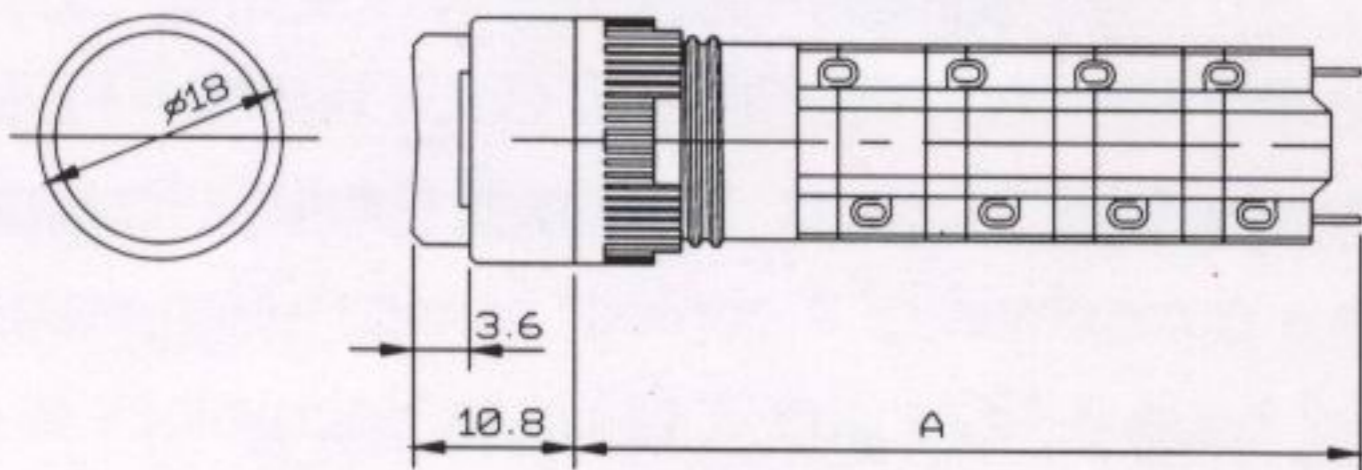
Technical data see page 2

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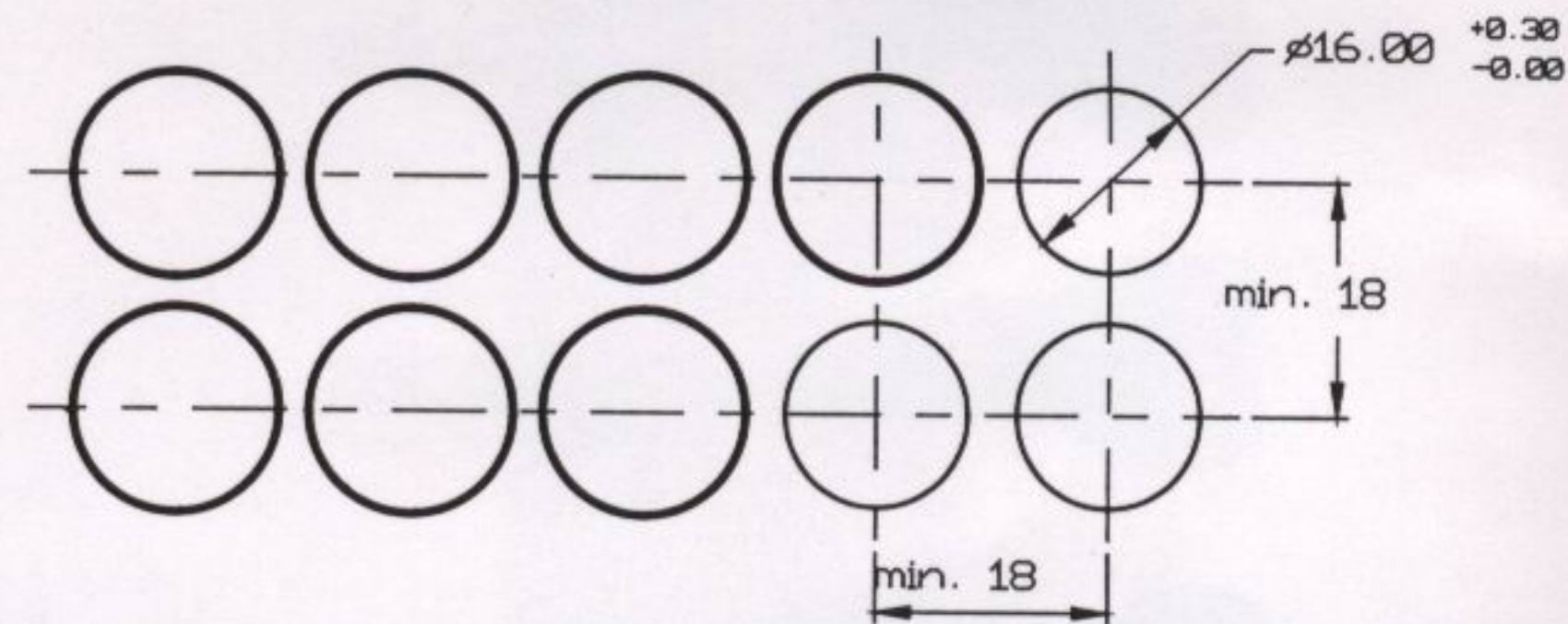
Bottom view



Mounting dimensions, mm



Dimensions, mm

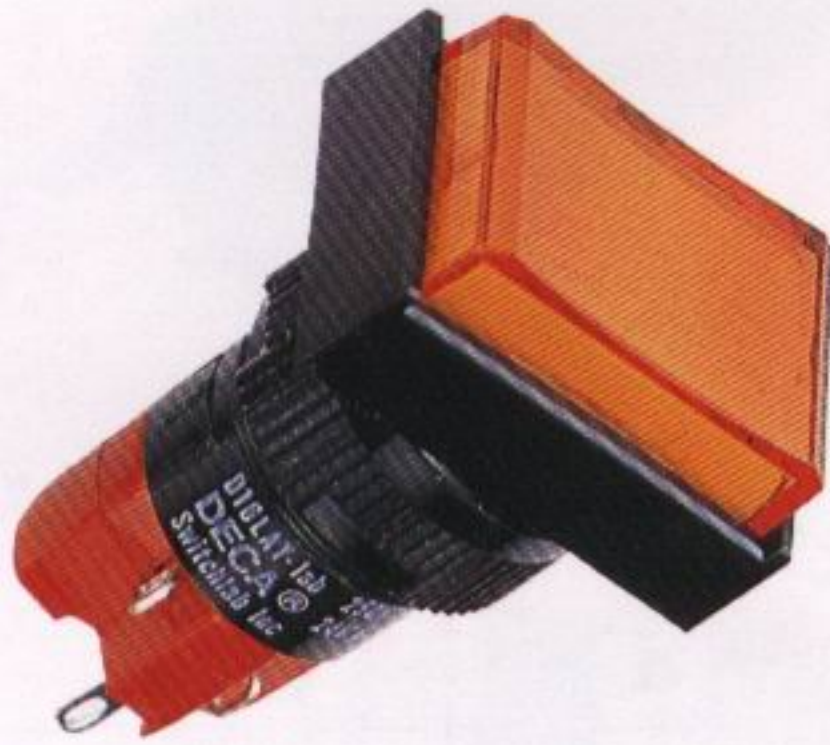


Description	Type	Contact block diagram (button not depressed)	Mounting length (A)	Case colour
Illuminated or non-illuminated pushbutton, 1 pole momentary action	SPST		29 mm	black red
Illuminated or non-illuminated pushbutton, 2 pole momentary action	DPST		36.5 mm	black red
Illuminated or non-illuminated pushbutton, 3 pole momentary action	3PST		44 mm	black red
Illuminated or non-illuminated pushbutton, 4 pole momentary action	4PST		51.5 mm	black red
Illuminated or non-illuminated pushbutton, 1 pole alternate action	SPST		29 mm	black red
Illuminated or non-illuminated pushbutton, 2 pole alternate action	DPST		36.5 mm	black red
Illuminated or non-illuminated pushbutton, 3 pole alternate action	3PST		44 mm	black red
Illuminated or non-illuminated pushbutton, 4 pole alternate action	4PST		51.5 mm	black red

NOTES: As usual, silver contactors are commonly used. However, if it is used for small signal, we wish to recommend the use of gold plated contactors for which you are most welcome to contact with us for detailed specifications

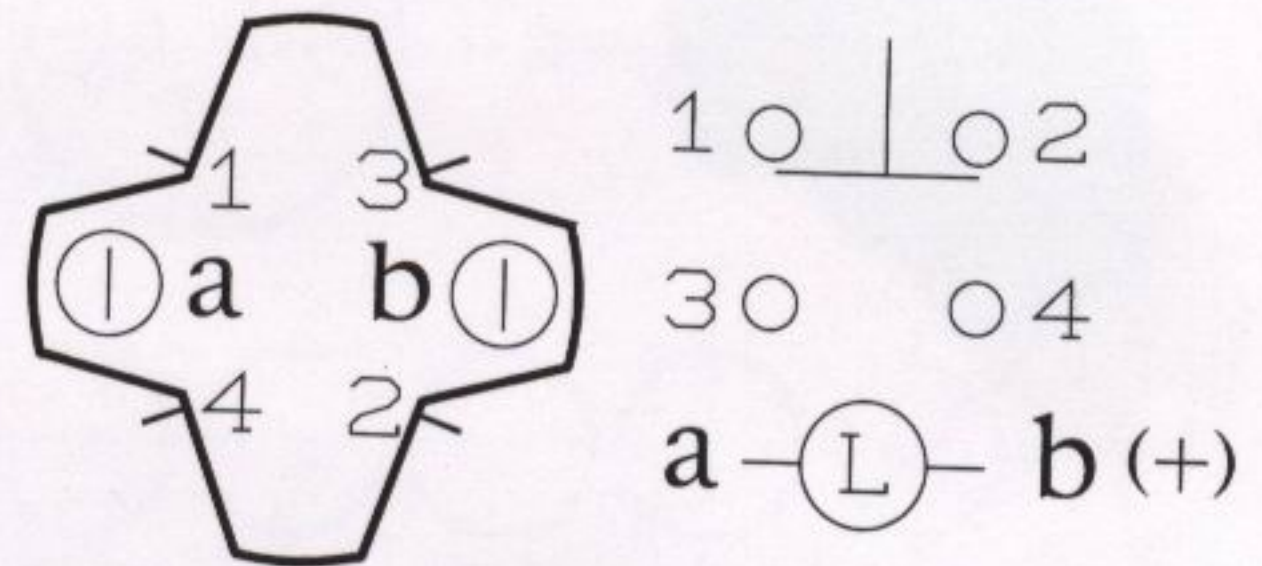
SOLDERING TYPE ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Rectangular

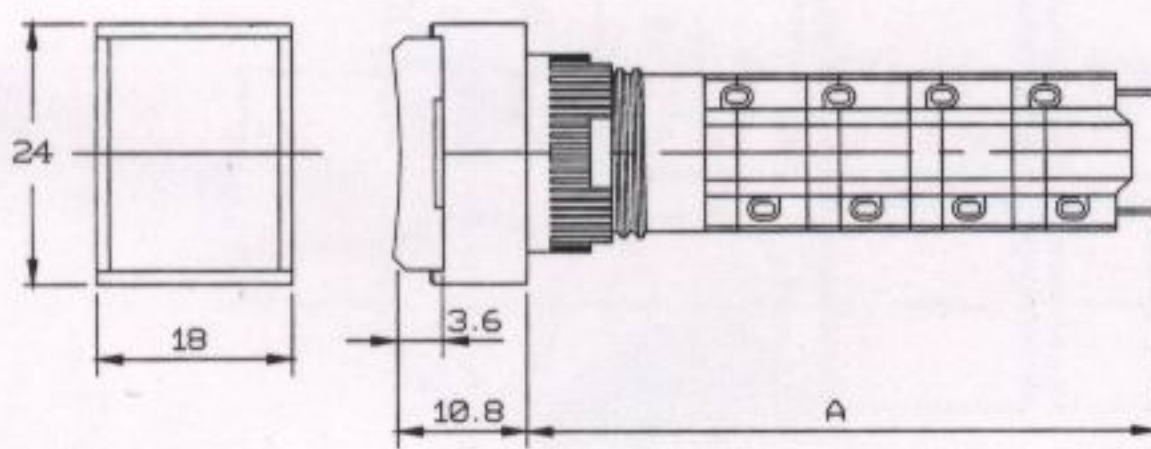


Accessories see page 13~14
 Technical data see page 2
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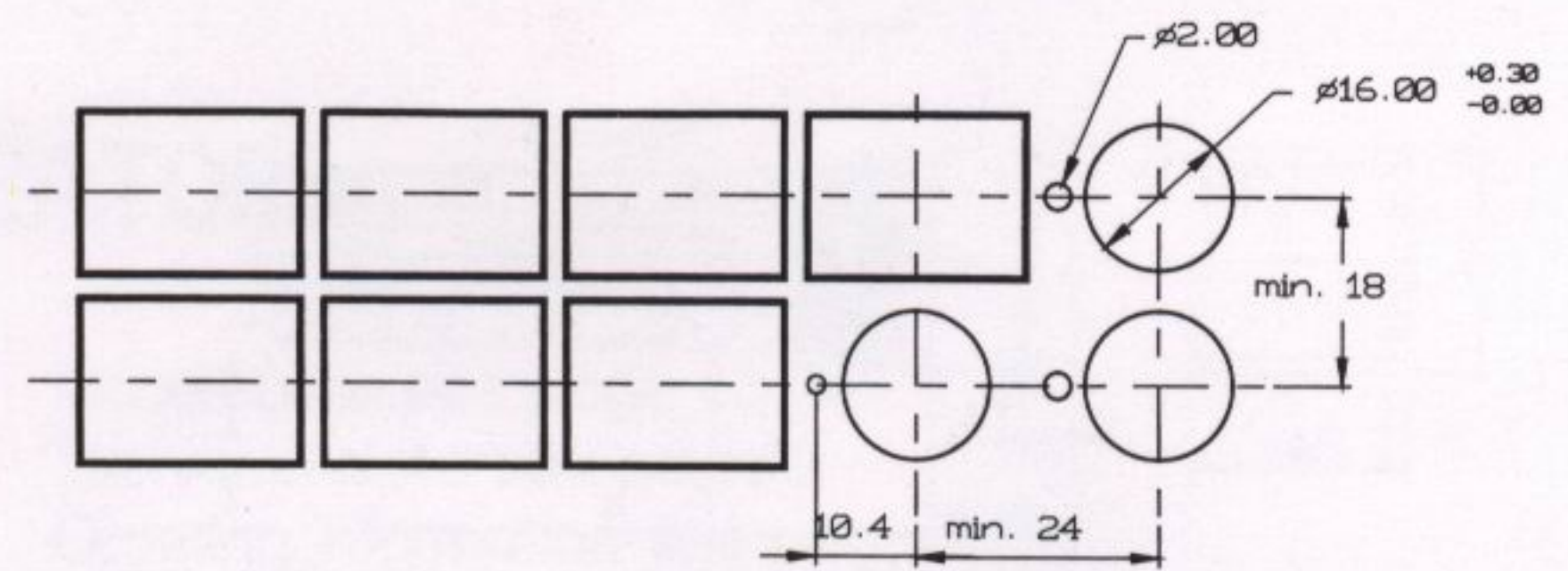
Bottom view



Mounting dimensions, mm



Dimensions, mm



Description	Type	Contact block diagram (button not depressed)	Mounting length (A)	Case colour
Illuminated or non-illuminated pushbutton, 1 pole momentary action	SPST		29 mm	black red
Illuminated or non-illuminated pushbutton, 2 pole momentary action	DPST		36.5 mm	black red
Illuminated or non-illuminated pushbutton, 3 pole momentary action	3PST		44 mm	black red
Illuminated or non-illuminated pushbutton, 4 pole momentary action	4PST		51.5 mm	black red
Illuminated or non-illuminated pushbutton, 1 pole alternate action	SPST		29 mm	black red
Illuminated or non-illuminated pushbutton, 2 pole alternate action	DPST		36.5 mm	black red
Illuminated or non-illuminated pushbutton, 3 pole alternate action	3PST		44 mm	black red
Illuminated or non-illuminated pushbutton, 4 pole alternate action	4PST		51.5 mm	black red

NOTES: As usual, silver contactors are commonly used. However, if it is used for small signal, we wish to recommend the use of gold plated contactors for which you are most welcome to contact with us for detailed specifications

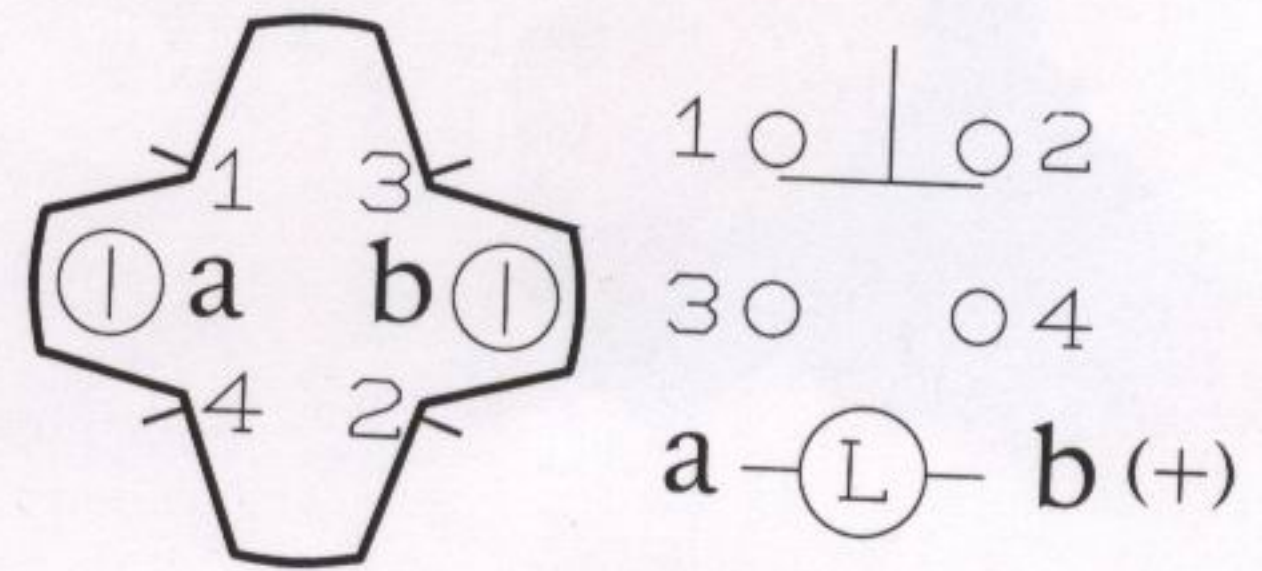
SOLDERING TYPE ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Square

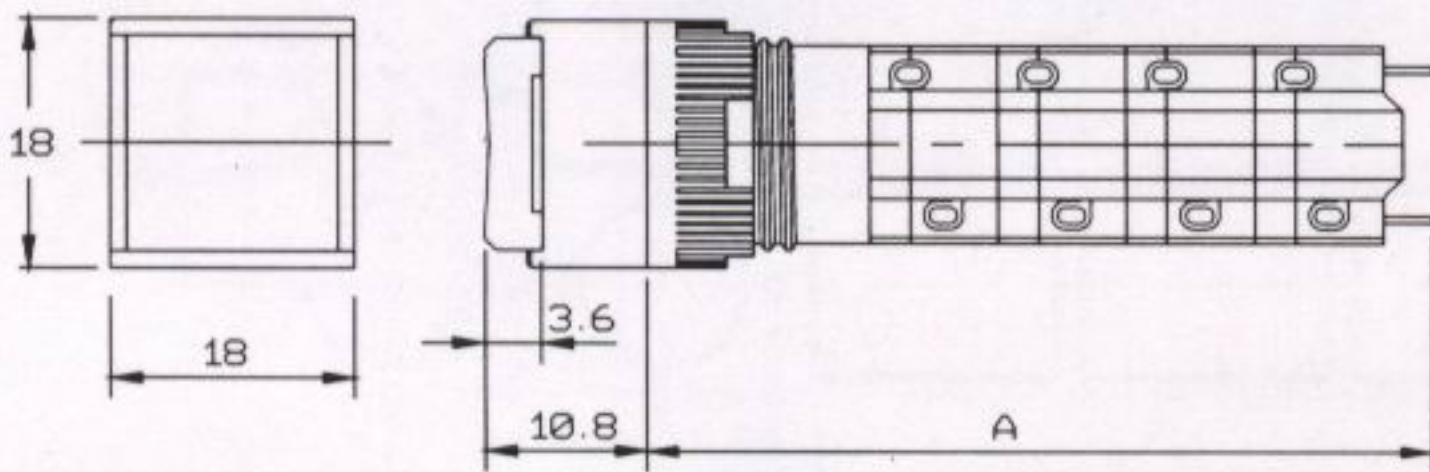


Accessories see page 13~14
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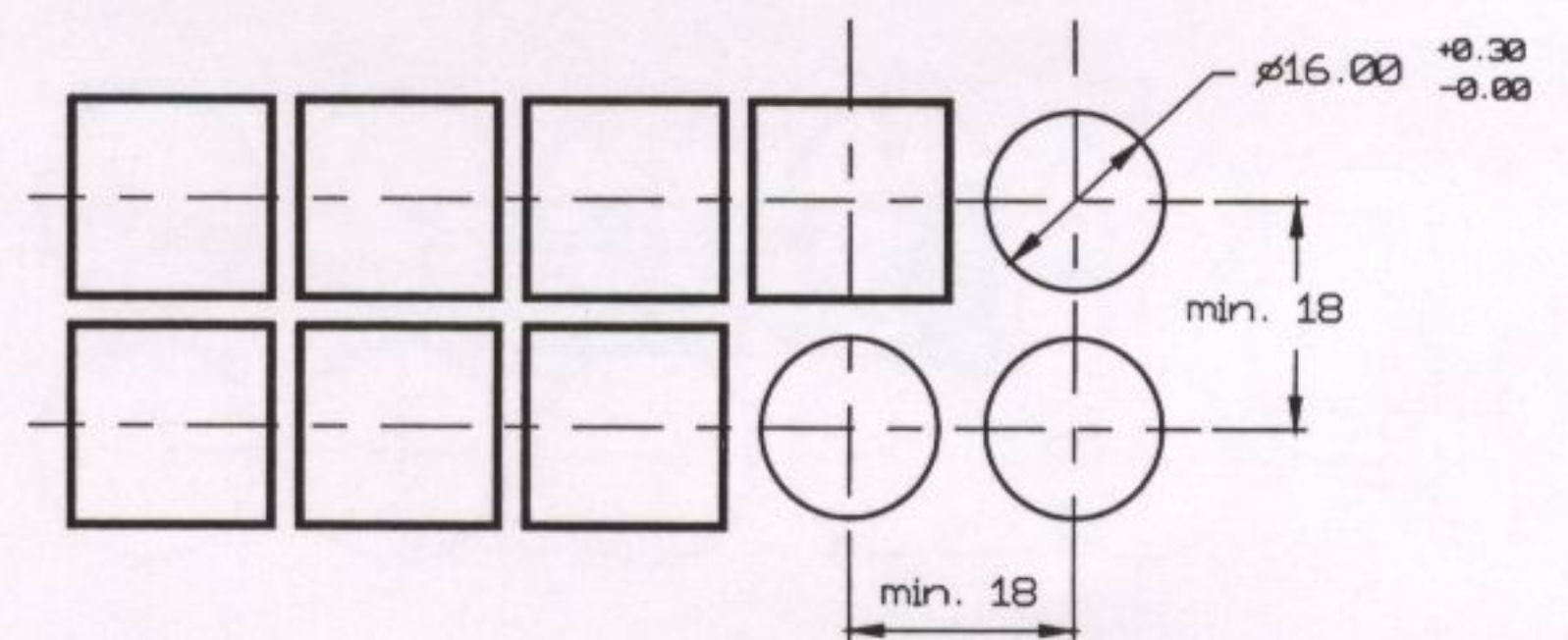
Bottom view



Mounting dimensions, mm



Dimensions, mm



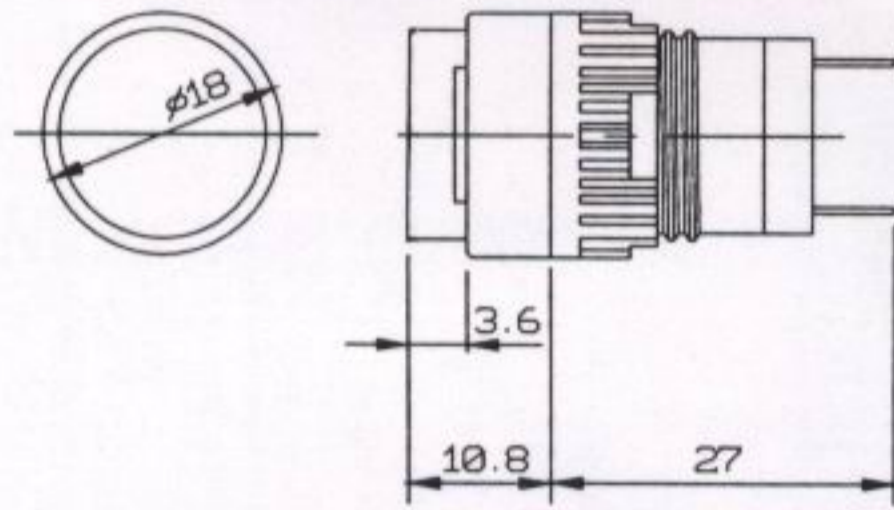
Description	Type	Contact block diagram (button not depressed)	Mounting length (A)	Case colour
Illuminated or non-illuminated pushbutton, 1 pole momentary action	SPST		29 mm	black red
Illuminated or non-illuminated pushbutton, 2 pole momentary action	DPST		36.5 mm	black red
Illuminated or non-illuminated pushbutton, 3 pole momentary action	3PST		44 mm	black red
Illuminated or non-illuminated pushbutton, 4 pole momentary action	4PST		51.5 mm	black red
Illuminated or non-illuminated pushbutton, 1 pole alternate action	SPST		29 mm	black red
Illuminated or non-illuminated pushbutton, 2 pole alternate action	DPST		36.5 mm	black red
Illuminated or non-illuminated pushbutton, 3 pole alternate action	3PST		44 mm	black red
Illuminated or non-illuminated pushbutton, 4 pole alternate action	4PST		51.5 mm	black red

NOTES: As usual, silver contactors are commonly used. However, if it is used for small signal, we wish to recommend the use of gold plated contactors for which you are most welcome to contact with us for detailed specifications

ROUND HEAD PILOT INDICATORS

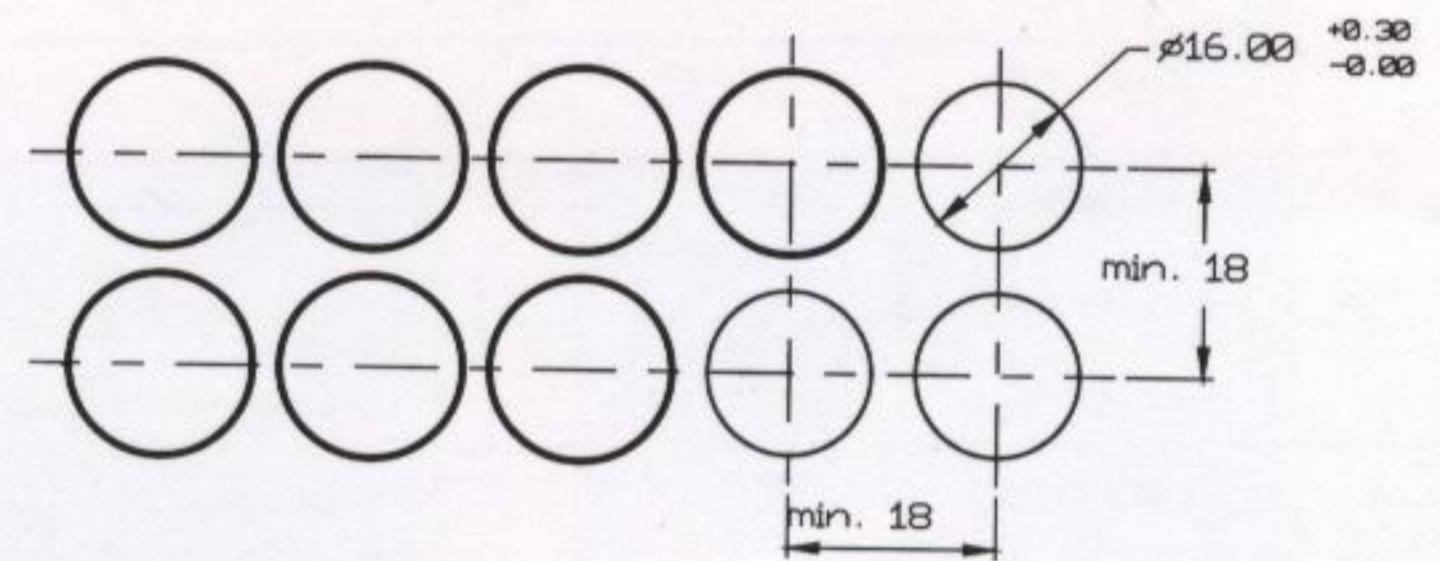
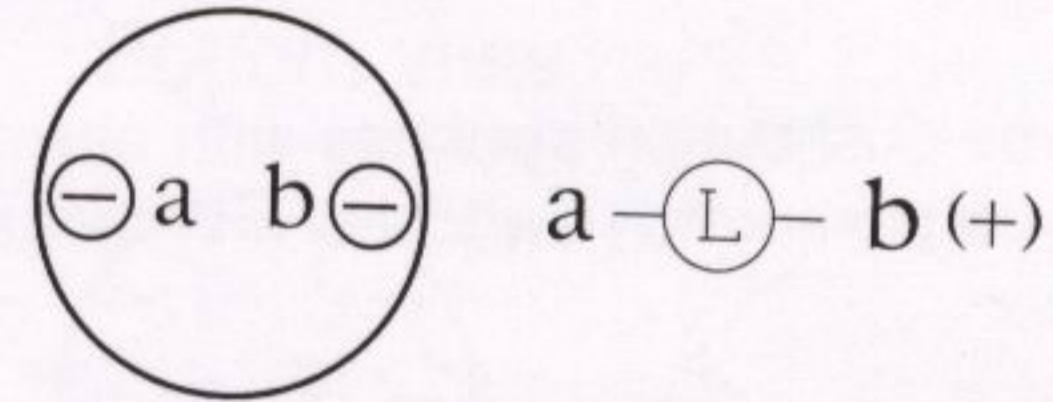


■ Mounting dimensions mm

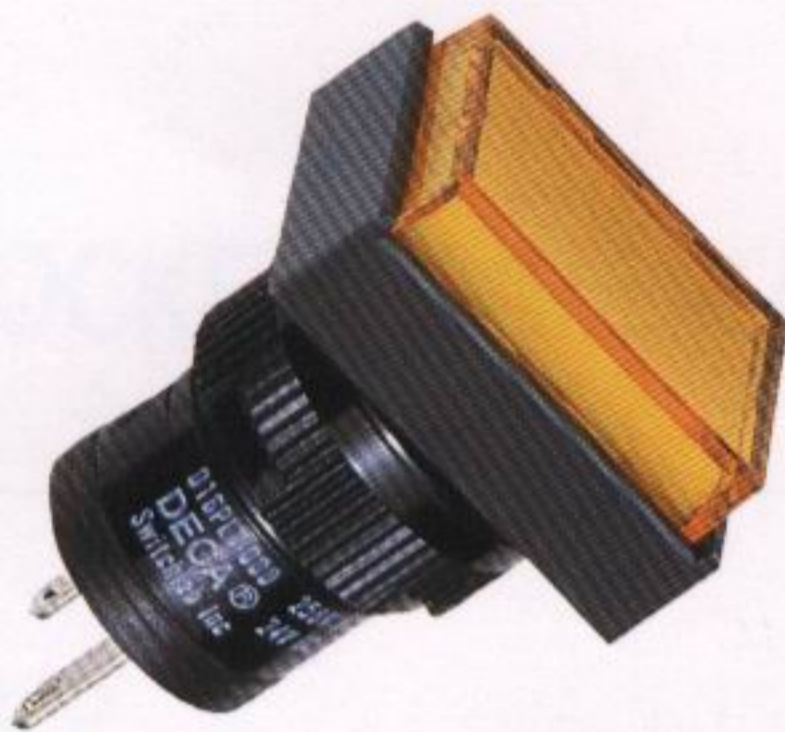


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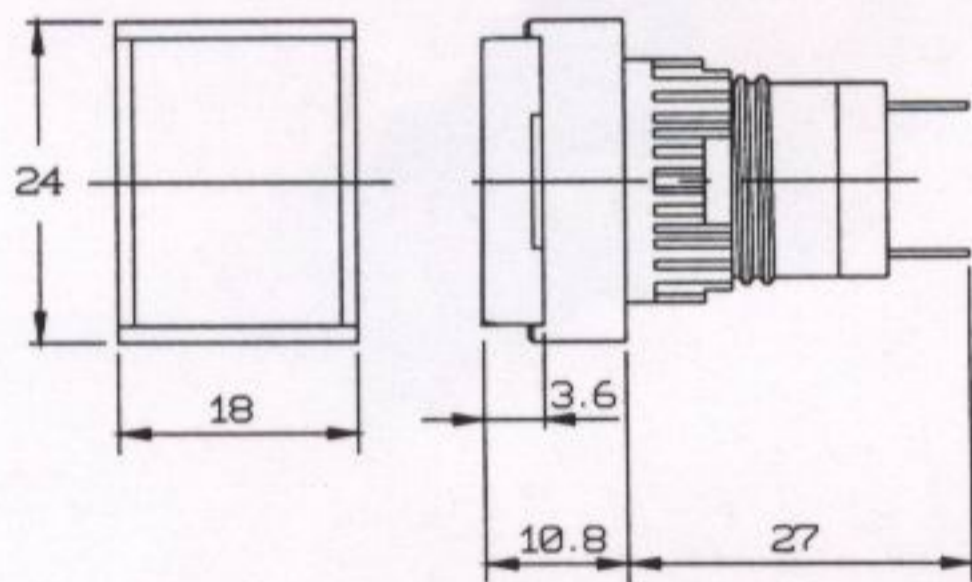
■ Bottom view



RECTANGULAR HEAD PILOT INDICATORS

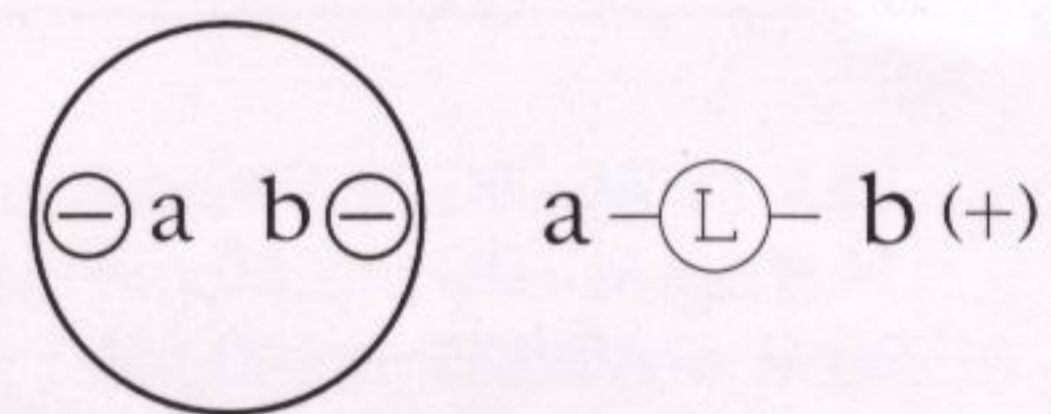


■ Mounting dimensions, mm

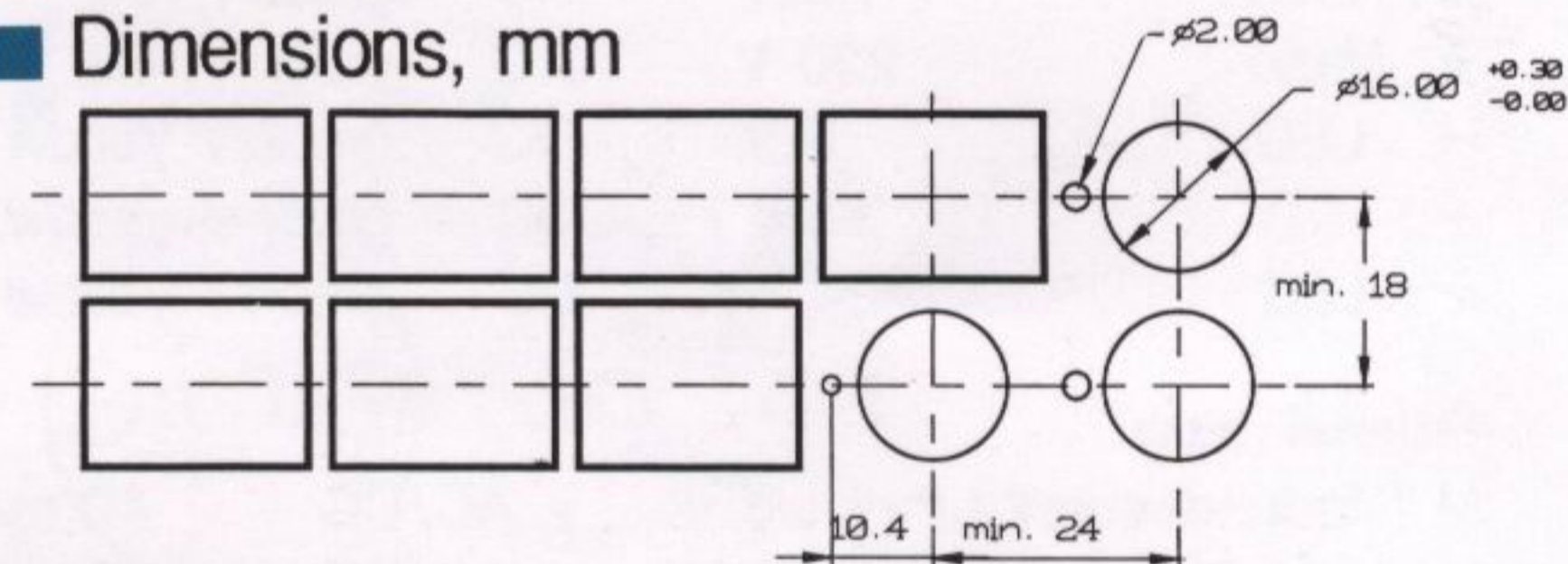


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 7

■ Bottom view



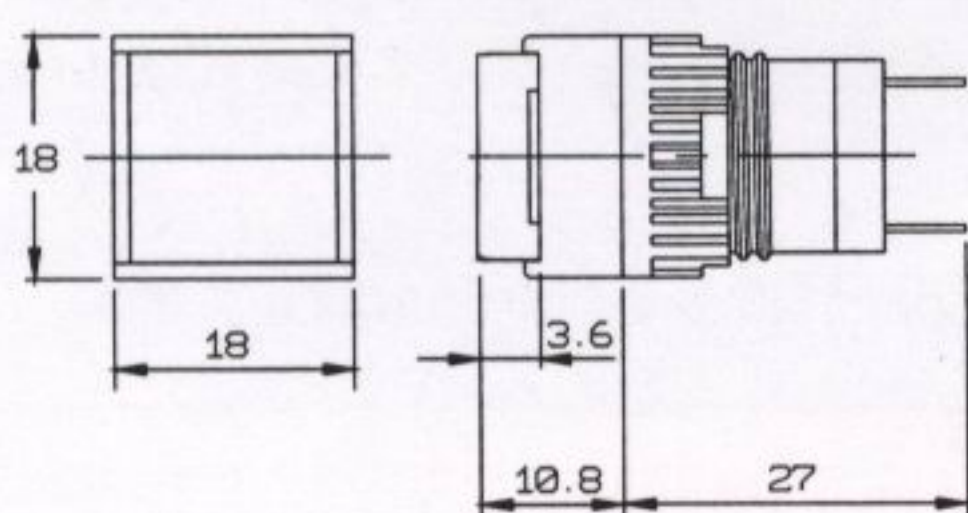
■ Dimensions, mm



SQUARE HEAD PILOT INDICATORS

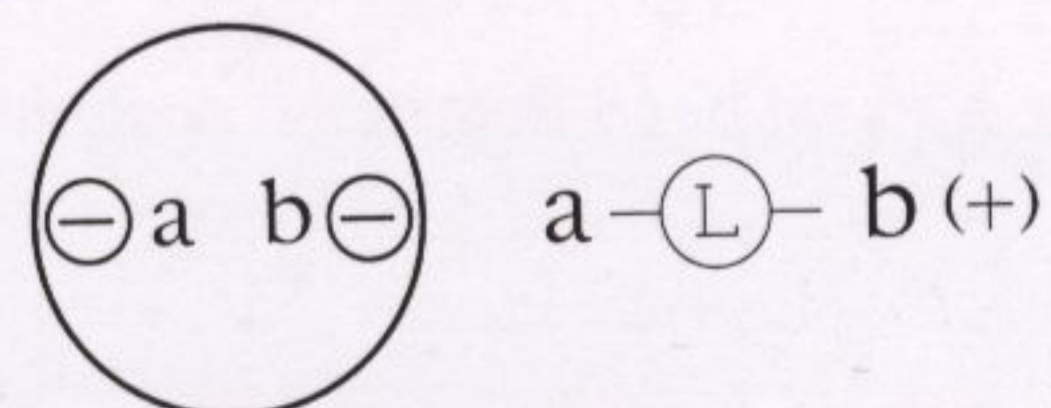


■ Mounting dimensions. mm

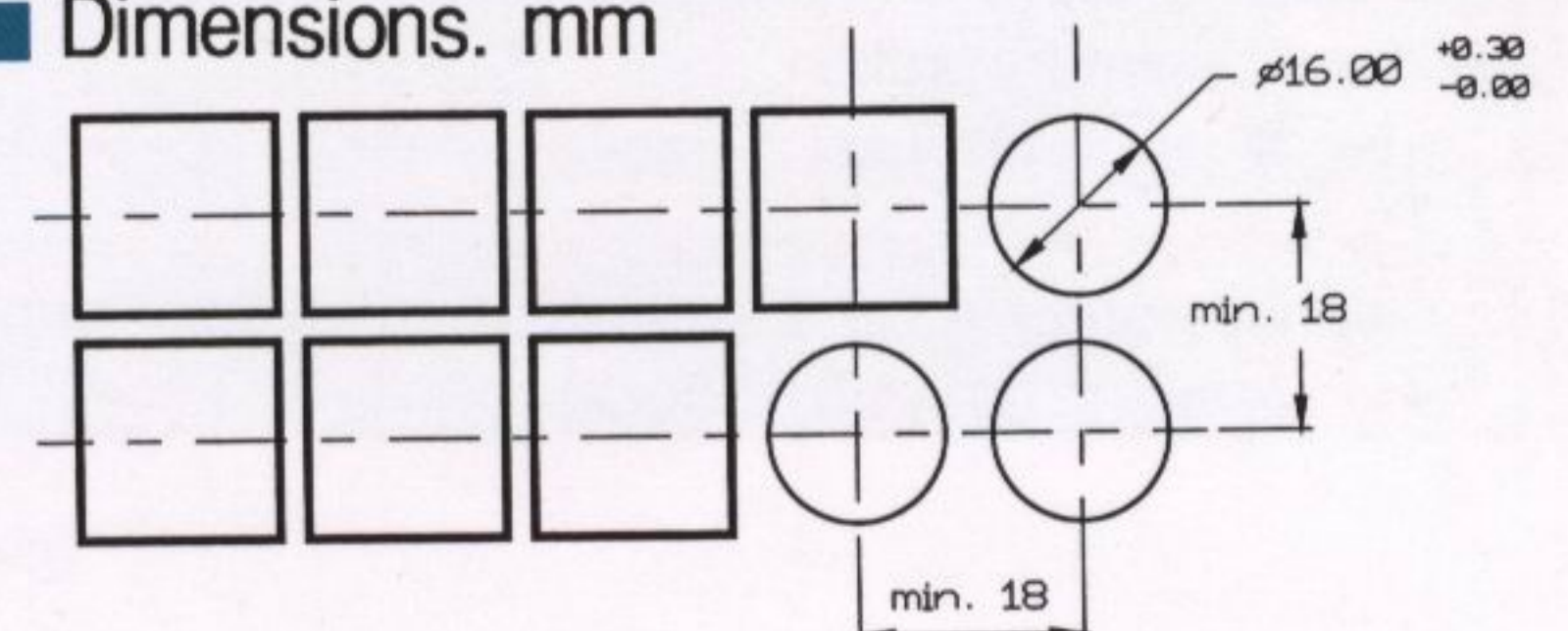


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 7

■ Bottom view



■ Dimensions. mm



SOLDERING TYPE PUSHBUTTON SWITCHES & INDICATORS ORDER INFORMATION

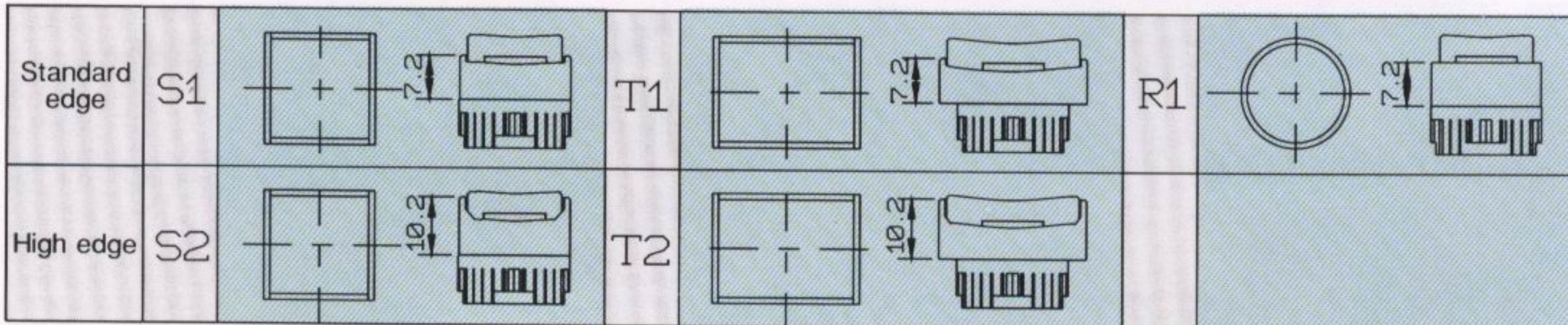
Order no : **D16** —

φ 16 mm basic type: _____

Functions : _____

- LA : Soldering type pushbutton switches with alternate action
- LM : Soldering type pushbutton switches with momentary action
- PL : Pilot indicator

Pushbutton Head : _____



Contact Arrange : _____

- 000 : Non contact
- 1ab : 1 NO + 1 NC
- 2ab : 2 NO + 2 NC
- 3ab : 3 NO + 3 NC
- 4ab : 4 NO + 4 NC

Lamp and Voltage : _____

- 0 : Without lamp
- A : Incandescent 6 V AC/DC 200 mA
- B : Incandescent 14 V AC/DC 80 mA
- C : Incandescent 28 V AC/DC 40 mA
- F : Neon 110 V AC green / red
- G : Neon 220 V AC green / red
- H : LED 6 V DC green / yellow / red
- J : LED 12 V DC green / yellow / red
- K : LED 24 V DC green / yellow / red

Special type :

- M : Incandescent 6 V AC/DC 40 mA
- N : Incandescent 14 V AC/DC 40 mA
- L : Incandescent 33 V AC/DC 35 mA
- D : Incandescent 48 V AC/DC 25 mA
- E : Incandescent 60 V AC/DC 20 mA

Color Lens : _____

- B : Blue G : Green O : Orange
- R : Red W : White Y : Yellow

Order Example :

If you want to order a round head illuminated pushbutton switch with a yellow color lens 60V DC 20 mA incandescent lamp, 3NO +3NC contacts, alternate action

It's order # as : D16LAR1-3abEY

If you want to order a rectangular head pushbutton switch with high edge, non-illuminated and red color lens, 2NO + 2NC contacts momentary action

It's order # as : D16LMT2-2abOR

If you want to order a square head pilot indicator with standard edge, blue color lens, 28V DC 40mA incandescent lamp.

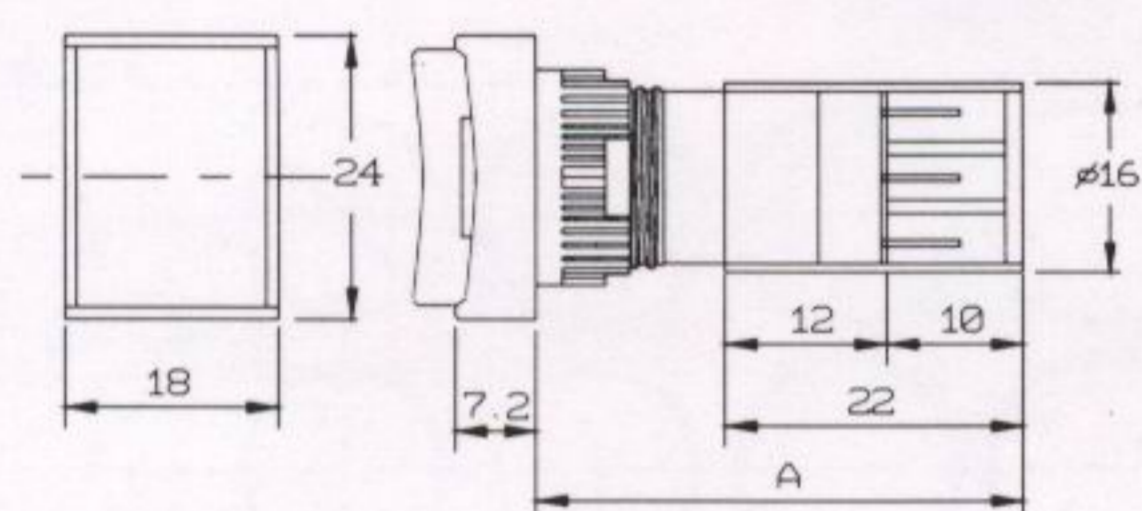
It's order # as : D16PLS1-000CB

SOCKET TYPE ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Rectangular

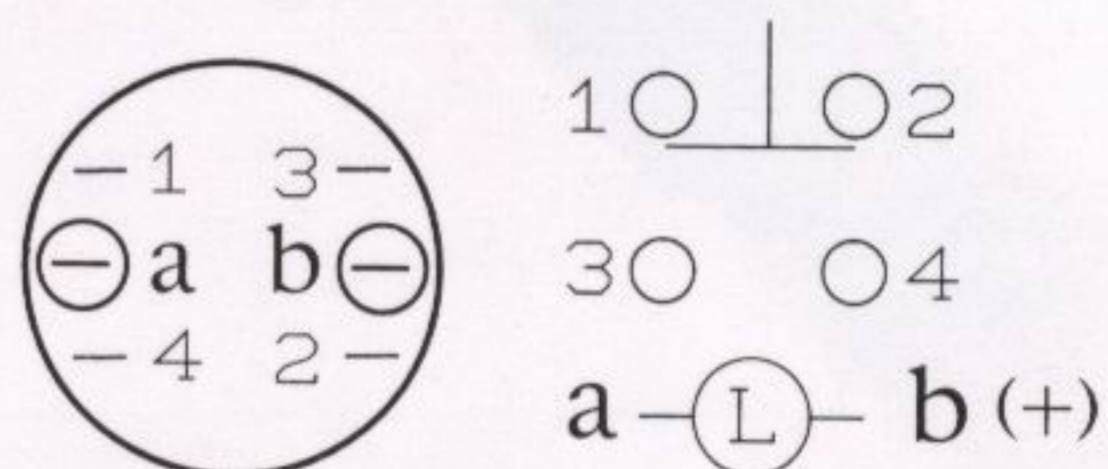


■ Mounting dimensions, mm

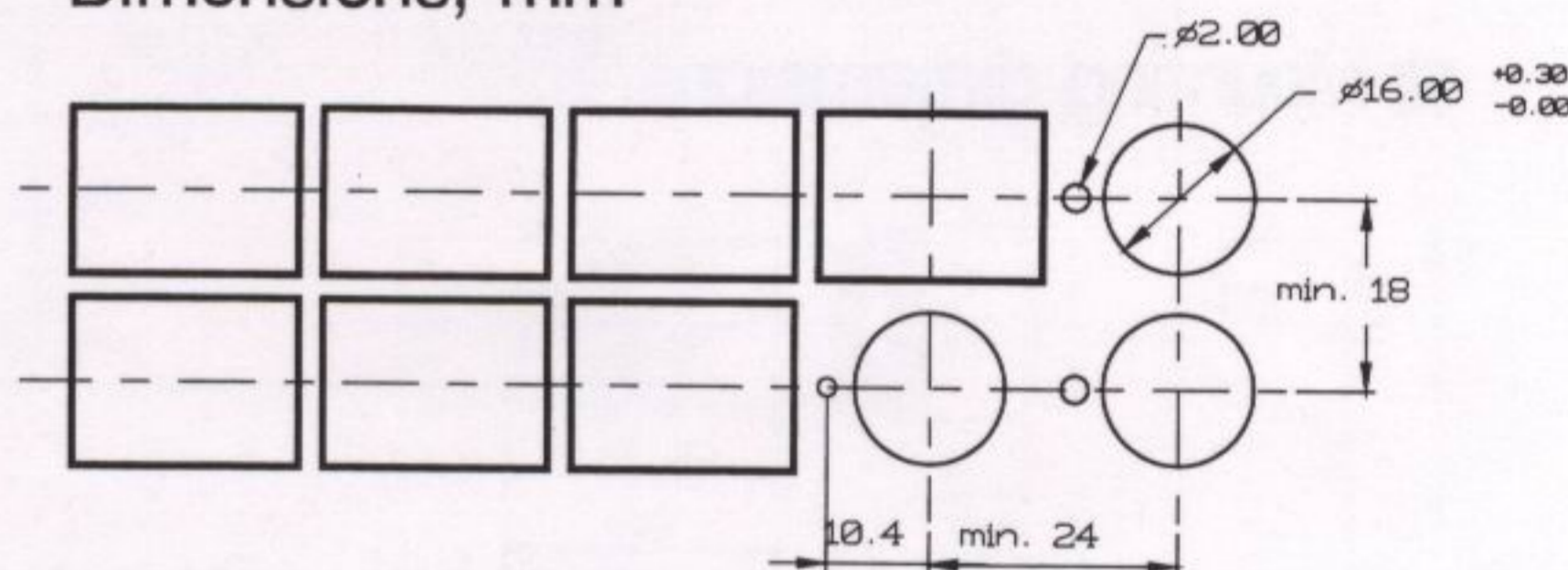


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 10

Bottom view



Dimensions, mm

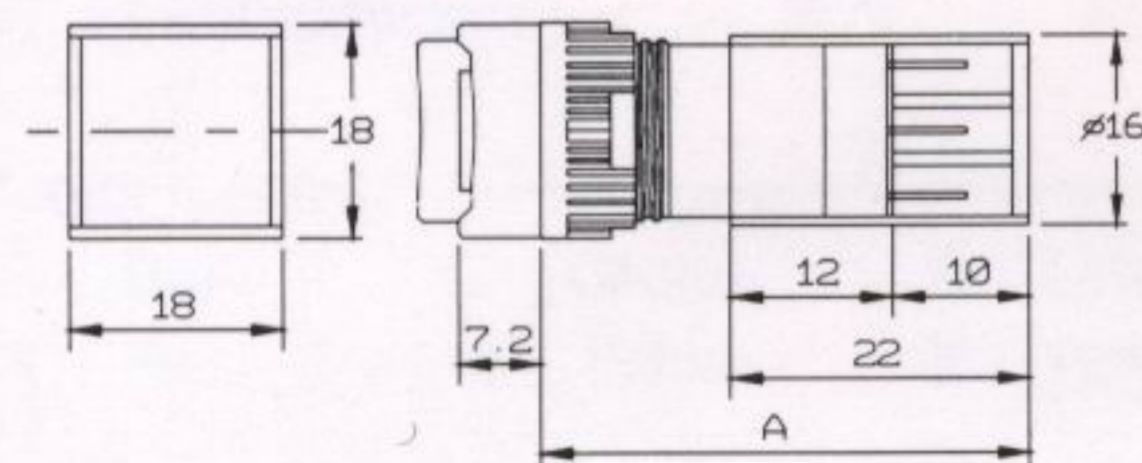


SOCKET TYPE ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Square

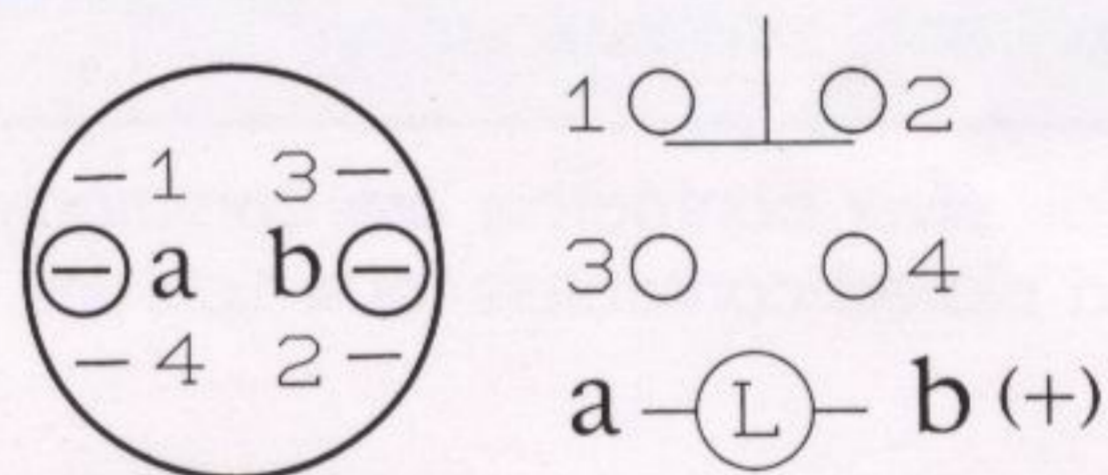


■ Mounting dimensions, mm

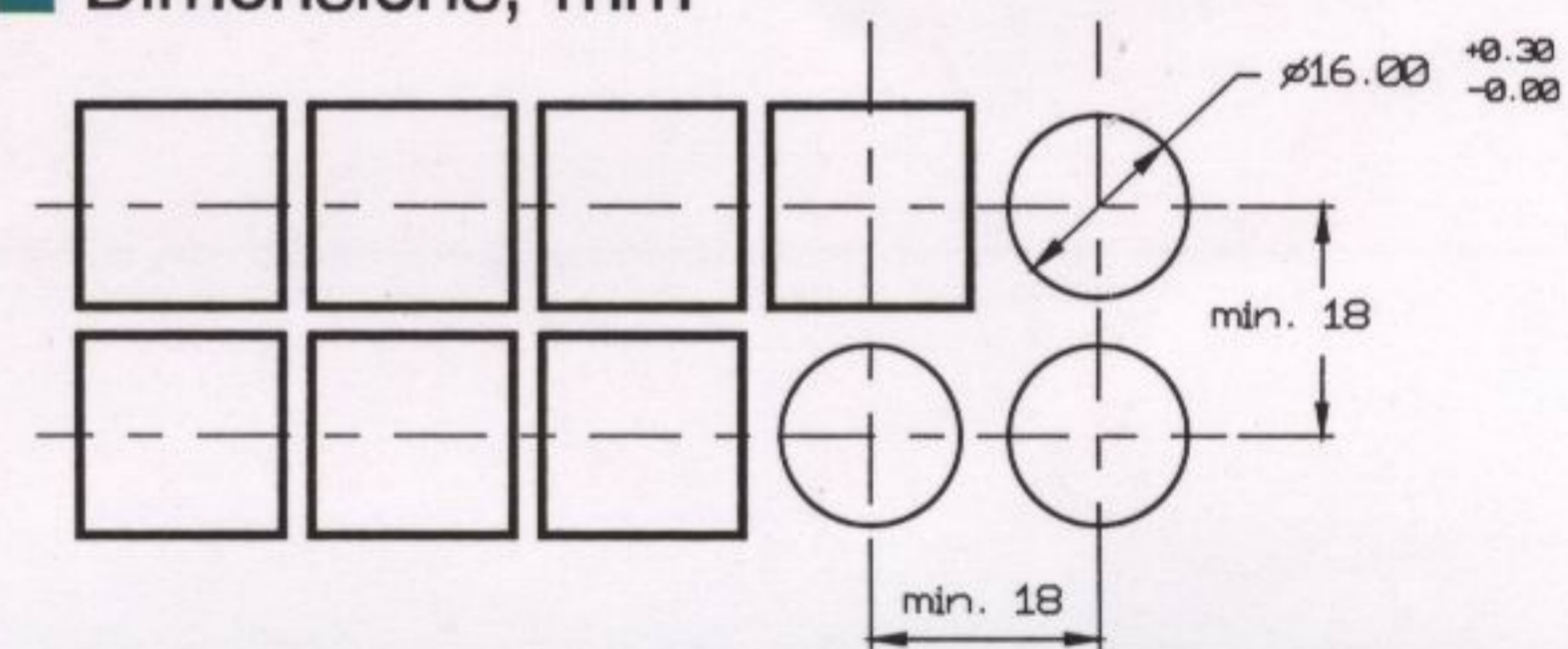


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 10

■ Bottom view



■ Dimensions, mm



Description	Type	Contact block diagram (button not depressed)	Mounting length(A)
Illuminated or non-illuminated pushbutton 1 pole momentary action	SPST		40 mm
Illuminated or non-illuminated pushbutton 1 pole alternate action	SPST		40 mm

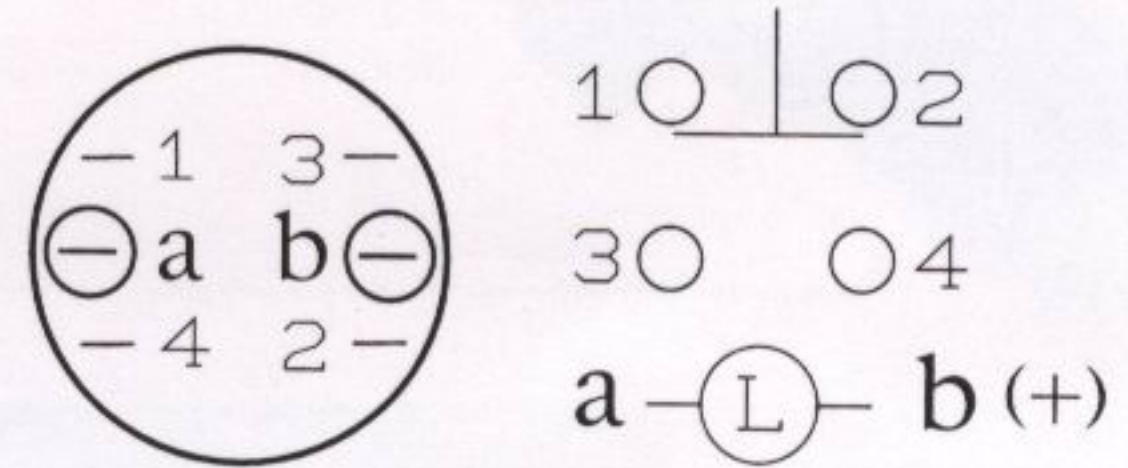
SOCKET TYPE ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Round

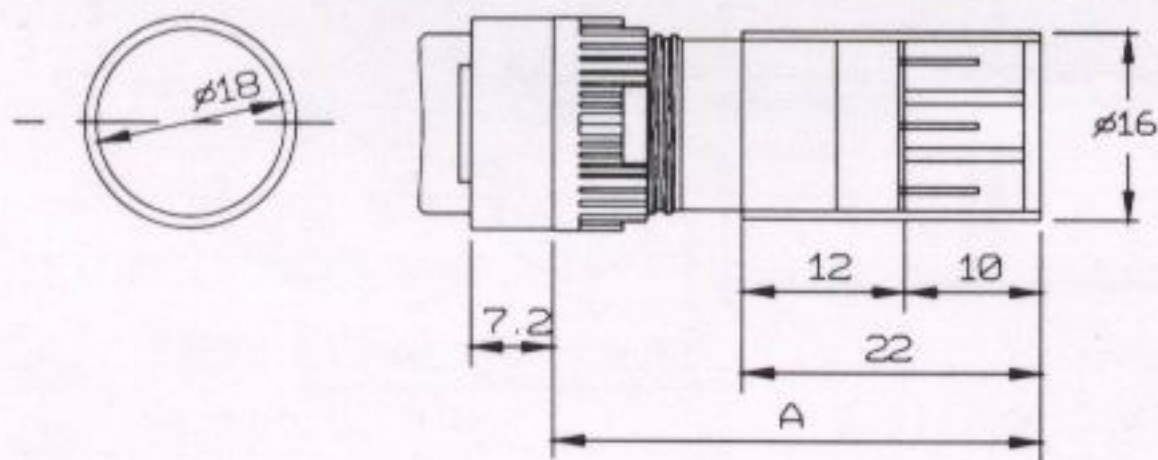


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 10

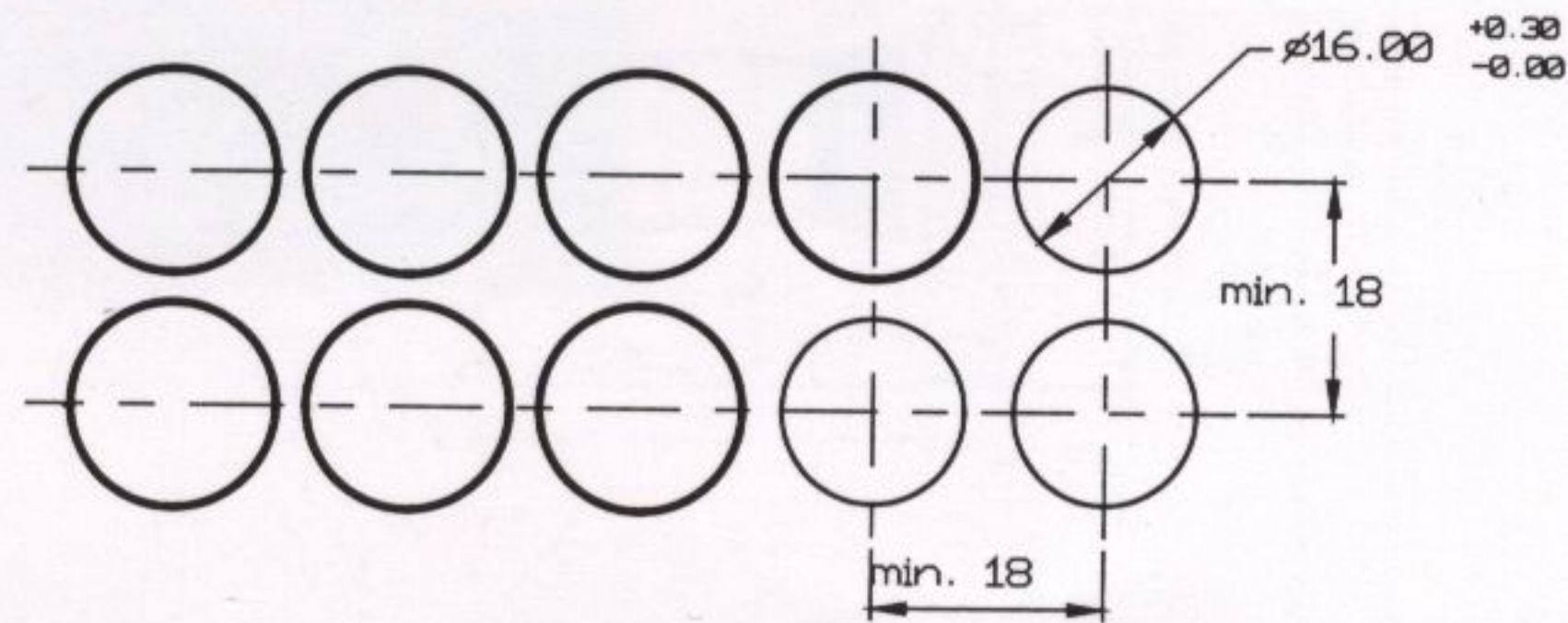
Bottom view



Mounting dimensions, mm



Dimensions, mm



Description	Type	Contact block diagram (button not depressed)	Mounting length (A)
Illuminated or non-illuminated pushbutton 1 pole momentary action	SPST		40 mm
Illuminated or non-illuminated pushbutton 1 pole alternate action	SPST		40 mm

NOTES: As usual, silver contactors are commonly used. However, if it is used for small signal, we wish to recommend the use of gold plated contactors for which you are most welcome to contact with us for detailed specifications

SOCKET TYPE PUSHBUTTON SWITCHES ORDER INFORMATION

Order no : **P16** —

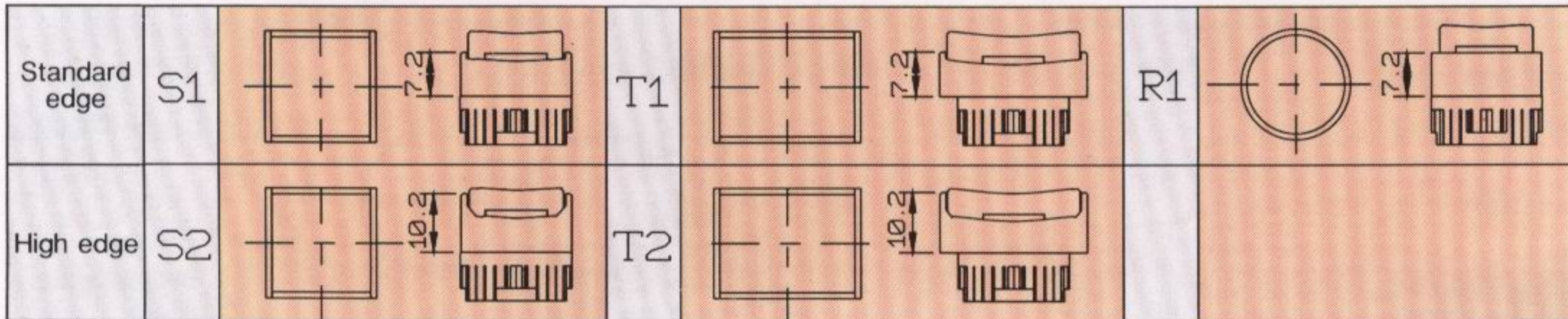
φ 16 mm basic type : _____

Function : _____

LA : Socket type pushbutton switches with alternate action

LM : Socket type pushbutton switches with momentary action

Pushbutton head : _____



Contact Arrangement : _____

1ab : 1 NO + 1 NC

Lamp and Voltage : _____

O : Without lamp

A : Incandescent 6 V AC/DC 200mA

B : Incandescent 14 V AC/DC 80mA

C : Incandescent 28 V AC/DC 40mA

F : Neon 110 V AC green / red

G : Neon 220 V AC green / red

H : LED 6 V DC green / yellow / red

J : LED 12 V DC green / yellow / red

K : LED 24 V DC green / yellow / red

Special type :

M : Incandescent 6V AC/DC 40 mA

N : Incandescent 14V AC/DC 40 mA

L : Incandescent 33V AC/DC 35 mA

D : Incandescent 48V AC/DC 25 mA

E : Incandescent 60V AC/DC 20 mA

Color Lens : _____

B : Blue G : Green O : Orange

R : Red W : White Y : Yellow

Order Example :

If you want to order a round head illuminated pushbutton switch with a yellow color lens 60V DC 20 mA incandescent lamp, 1NO +1NC contact, alternate action

It's order # as : P16LAR1-1abEY

If you want to order a rectangular head with high edge, non-illuminated pushbutton switch with red color lens, 1NO + 1NC contact momentary action

It's order # as : P16LMT2-1abOR

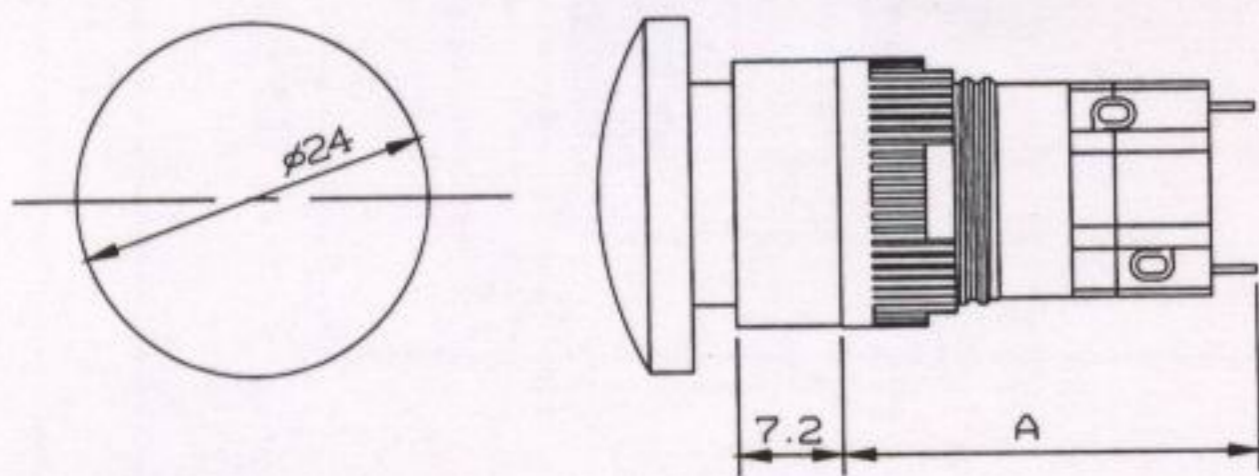
EMERGENCY OFF ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

Soldering type



■ D16 series

■ Mounting dimensions, mm

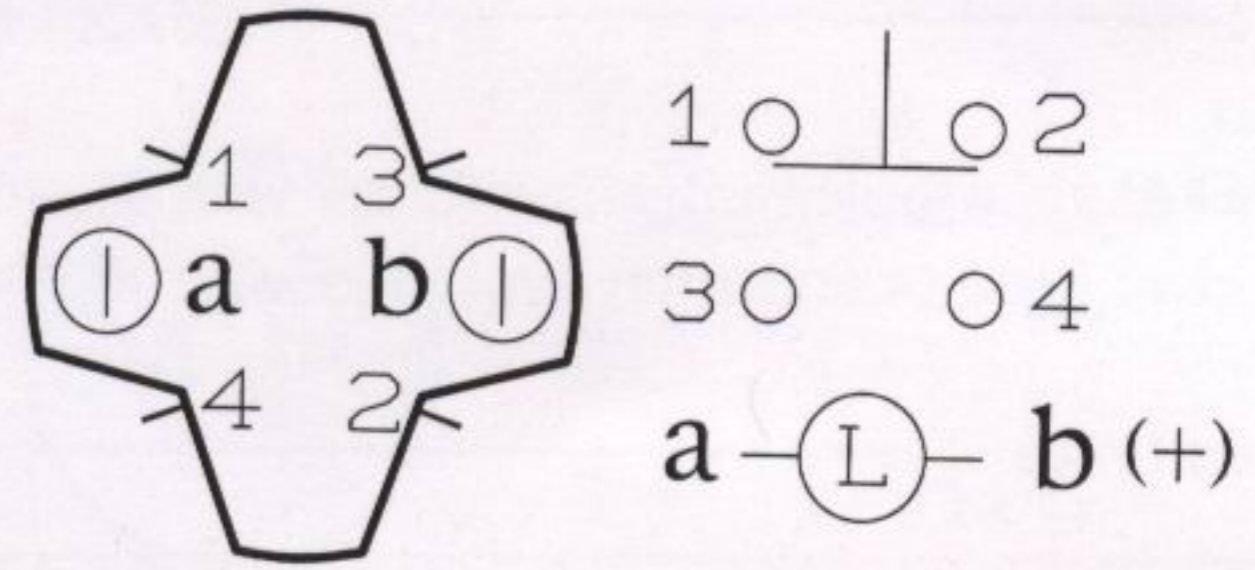


Accessories see page 13~14

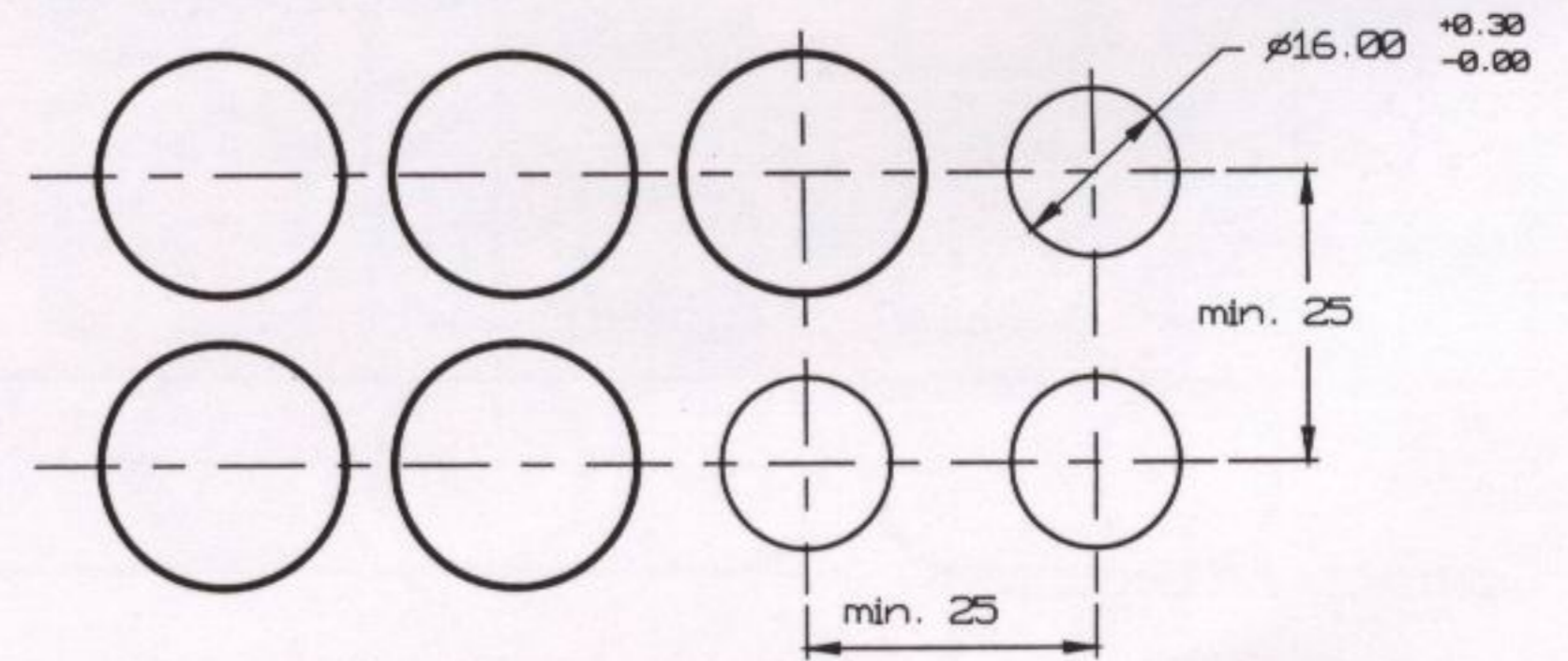
Technical data see page 2

Ordering information see page 12

■ Bottom view



■ Dimensions, mm

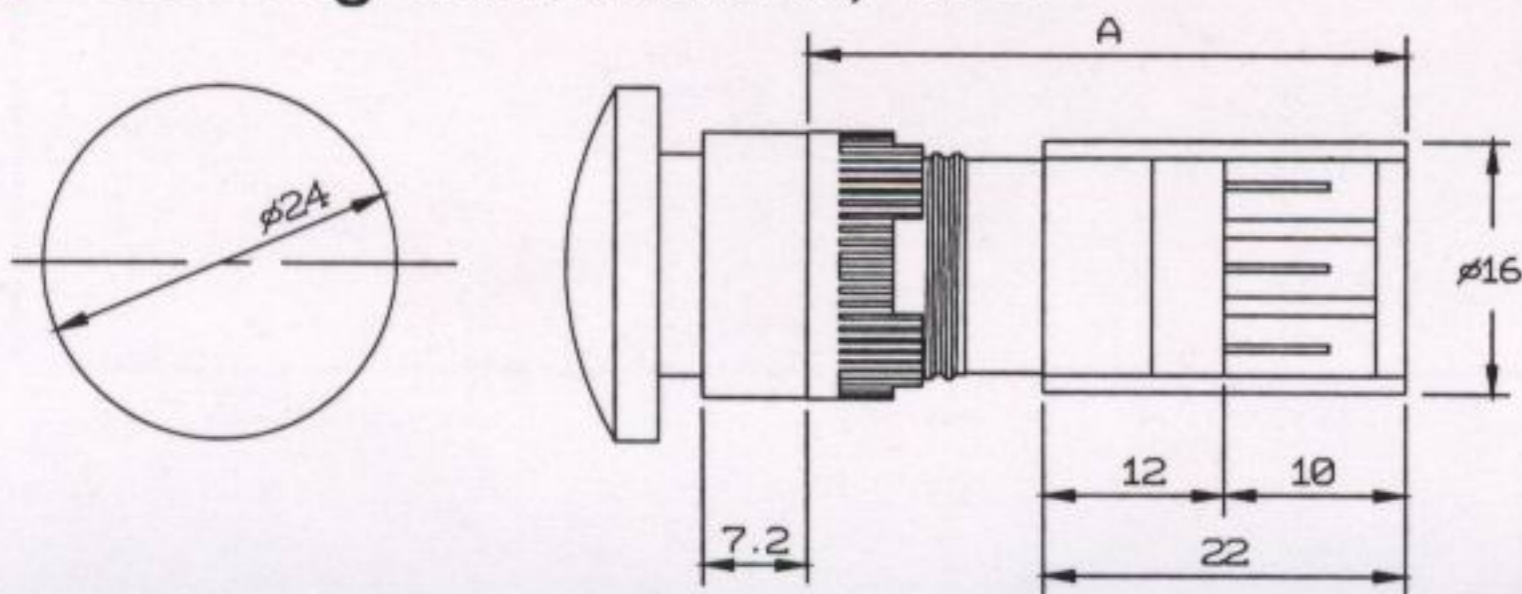


Socket Type



■ P16 series

■ Mounting dimensions, mm

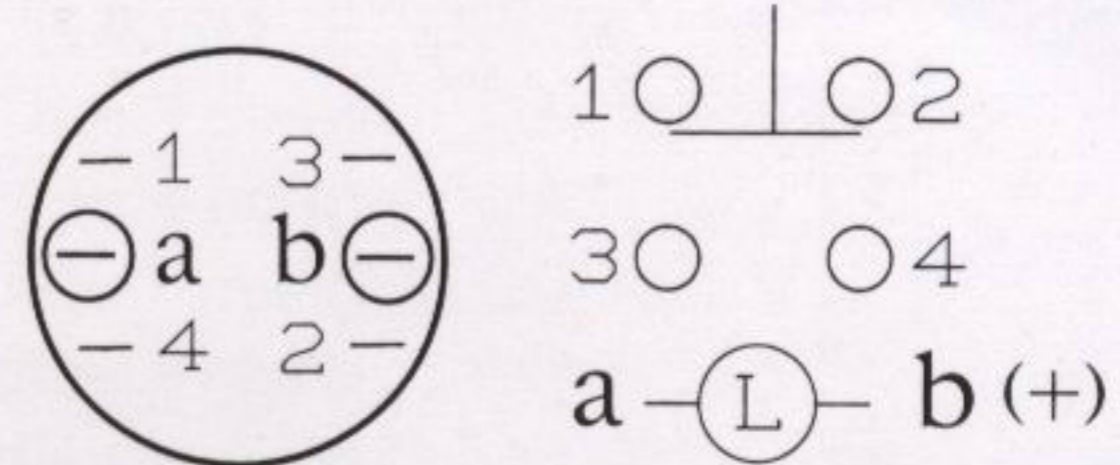


Accessories see page 13~14

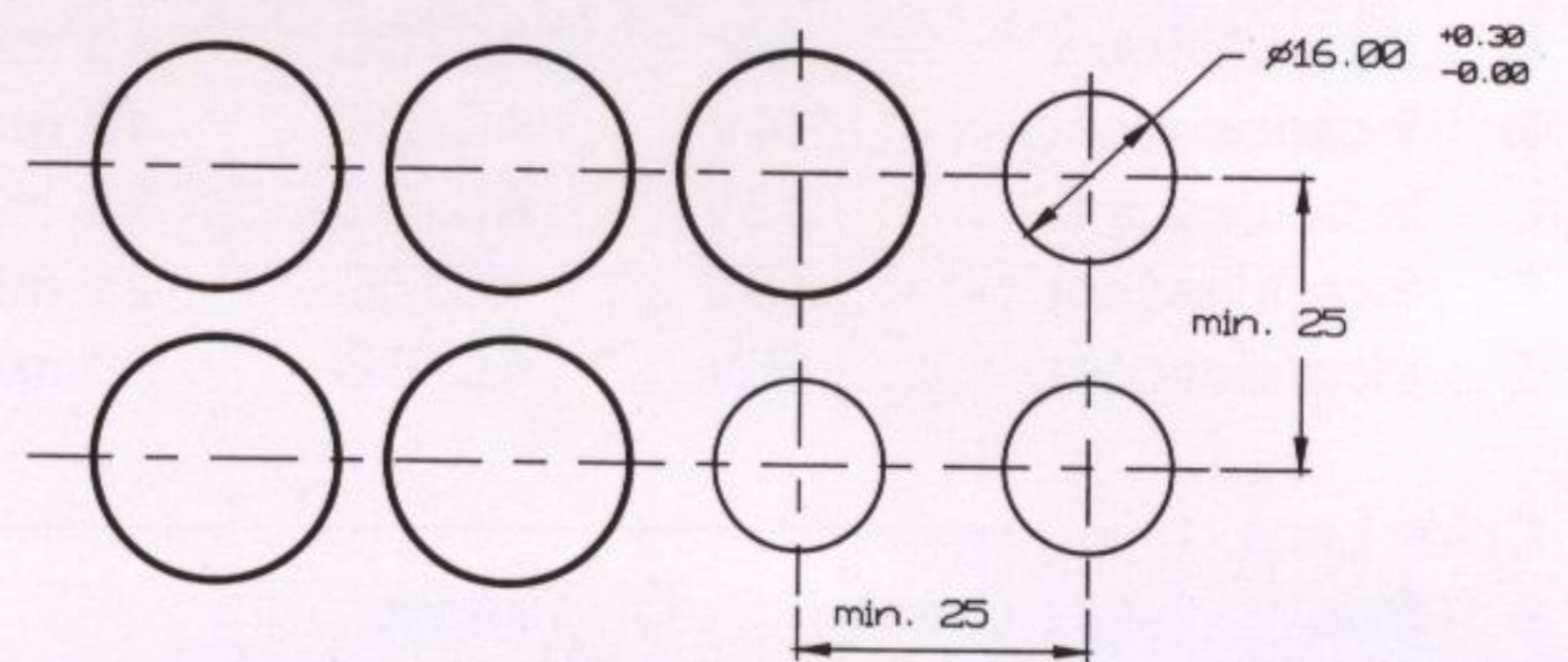
Technical data see page 2

Ordering information see page 12

■ Bottom view



■ Dimensions, mm



Description	Type	Contact block diagram (button not depressed)	Mounting length(A) Soldering	Mounting length(A) socket
illuminated or non-illuminated pushbutton 1 pole momentary action	SPST		29 mm	40 mm
illuminated or non-illuminated pushbutton 1 pole alternate action	SPST		29 mm	40 mm

Approval pending

EMERGENCY OFF ILLUMINATED SWITCHES & PUSHBUTTON SWITCHES

ORDER INFORMATION :

Soldering type

Order no : **D16** 3 —

φ 16 mm basic type : _____

Functions : _____

LA : Emergency off push button switches with alternate action

LM : Emergency off push button switches with momentary action

Shape of button : _____

R : Round shape

Contact arrangement : _____

1ab : 1NO+1NC

2ab : 2NO + 2NC

3ab : 3NO + 3NC

4ab : 4NO + 4NC

LAMP and voltage : _____

(See page 7.10)

Color cape : _____

R : red

G : green

Order example one :

If you want to order a soldering type emergency push buttonswitch with alternate action & 1ab contact. and color cape is red. it's order # as : D16LAR3-1abOR

If you want to order a soldering type emergency push buttonswitch momentary action & 1ab contact color cape is green, and 110V AC neon lamp its order # as : D16LMR3-1abFG

Socket Type

Order no : **P16** 3 —

φ 16 mm base type: _____

Functions : _____

LA : Emergency off push button switches with alternate action

LM : Emergency off push button switches with momentary action

Shape of button : _____

R : round

Contact arrangement : _____

1ab : 1NO+1NC

Lamp and voltage : _____

(See page 7.10)

Color cape : _____


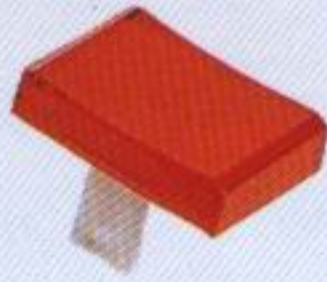
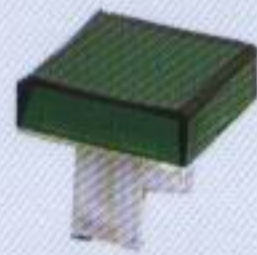


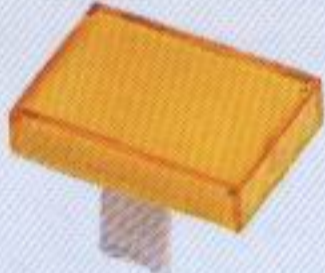




R : red

G : green




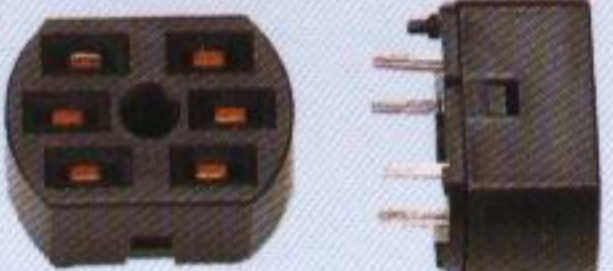



Order example one :

If you want to order a socket type emergency pushbutton switch, with red color cap, momentary action and 1ab contact, 110V AC neon Lamp. It's order # as : P16LMR3-1abFR

Accessories

Category		Description		Parts no	Parts no	Illustration
Colour Lens (Acrylic resin)	Round	CONCAVE		<input type="checkbox"/> blue <input type="checkbox"/> green <input type="checkbox"/> orange <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/> yellow	50-001-01 50-001-02 50-001-03 50-001-04 50-001-05 50-001-06	
	Rectangular	CONCAVE		<input type="checkbox"/> blue <input type="checkbox"/> green <input type="checkbox"/> orange <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/> yellow	50-002-01 50-002-02 50-002-03 50-002-04 50-002-05 50-002-06	
	Square	CONCAVE		<input type="checkbox"/> blue <input type="checkbox"/> green <input type="checkbox"/> orange <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/> yellow	50-003-01 50-003-02 50-003-03 50-003-04 50-003-05 50-003-06	
	Mushroom head	Opaque		<input type="checkbox"/> green <input type="checkbox"/> red	50-012-01 50-012-02	
	Round	Flat		<input type="checkbox"/> blue <input type="checkbox"/> green <input type="checkbox"/> orange <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/> yellow	50-001-11 50-001-12 50-001-13 50-001-14 50-001-15 50-001-16	
	Rectangular	Flat		<input type="checkbox"/> blue <input type="checkbox"/> green <input type="checkbox"/> orange <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/> yellow	50-002-11 50-002-12 50-002-13 50-002-14 50-002-15 50-002-16	
	Square	Flat		<input type="checkbox"/> blue <input type="checkbox"/> green <input type="checkbox"/> orange <input type="checkbox"/> red <input type="checkbox"/> white <input type="checkbox"/> yellow	50-003-11 50-003-12 50-003-13 50-003-14 50-003-15 50-003-16	
	Mushroom head	Transparent		<input type="checkbox"/> green <input type="checkbox"/> red	50-012-11 50-012-12	
	Lamp	Incandescent	6 V	AC/DC	200 mA	50-004-02
14 V			AC/DC	80 mA	50-004-04	
28 V			AC/DC	40 mA	50-004-05	
48 V			AC/DC	25 mA	50-004-06	
60 V			AC/DC	20 mA	50-004-07	
33 V			AC/DC	35 mA	50-004-08	
14 V			AC/DC	40 mA	50-004-03	
6 V			AC/DC	40 mA	50-004-01	
Neon		110 V	AC	green	50-004-11	
		220 V	AC	red	50-004-12	
LED	6 V	DC	green	50-004-16		
			red	50-004-17		
			yellow	50-004-18		
	12 V	DC	green	50-004-19		
			red	50-004-20		
			yellow	50-004-21		
24 V	DC	green	50-004-22			
		red	50-004-23			
		yellow	50-004-24			

Accessories

Category	Description	Parts No	Illustration
Lamp Extractor	Removing lamp tool	50-005-01	
Blanking Plate Block	PVC stopper to stuff the superfluous hole of the panel board	50-013-01	
Connector	Insulation Socket 2.8 × 0.5 mm	50-014-01	
PCB Socket Mounting	Socket insert into PCB board is available for socket type pushbutton switch installation	50-015-01	
Mounting Wrench	Use this for tightening the switch in the mounting hole	50-006-01	
Lens Removing	Use this for replaced the fitting color lens	50-007-01	
Spray Cover	Meets requirement of IP65, two pieces of transparent plastic, rectangular head	50-010-01	
Protection Cap	To avoid faulty operation, housing for locking, transparent For square head (90 °) For square head (180 °) For rectangular head (90 °) For rectangular head (180 °)	50-011-01 50-011-11 50-011-02 50-011-12	