

16 SERIES PUSHBUTTON SWITCHES AND INDICATORS



18 × 18

φ 18

18 × 24



indicator



1 pole



2 poles



3 poles



4 poles

According to performance, 16 series pushbutton switches can be further categorised 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.

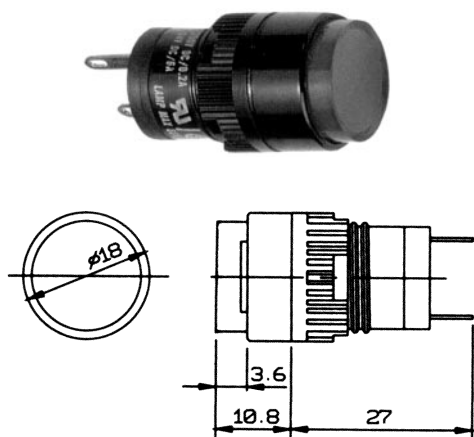
Our contactors are with quality silver contact points so as to ensure electrical stability and the life span. Each contact block has N.C (Normal Close) contact points and N.O. (Normal Open) contact points. Code number 1-2 for wiring stand for N.C. contact points; whereas 3-4 stand for N.O. contact points. 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.

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 0.75mm ² 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

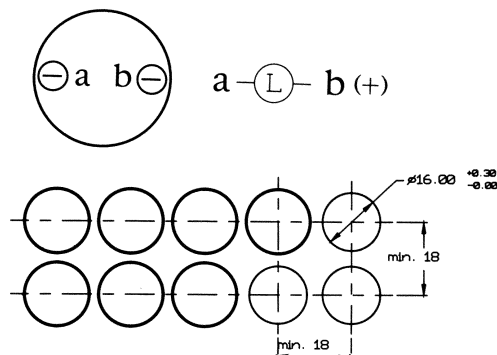
*Alternate action: push-on, push-off

ROUND HEAD PILOT INDICATORS

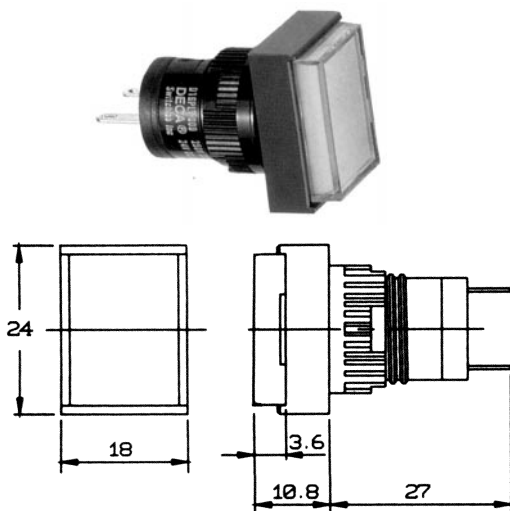


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 7

■ Bottom view

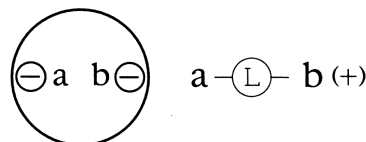


RECTANGULAR HEAD PILOT INDICATORS

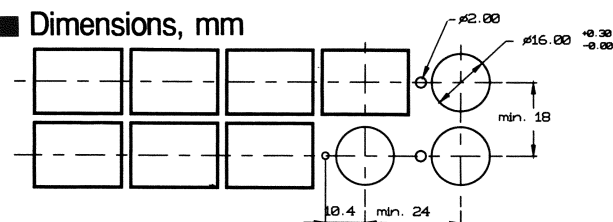


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 7

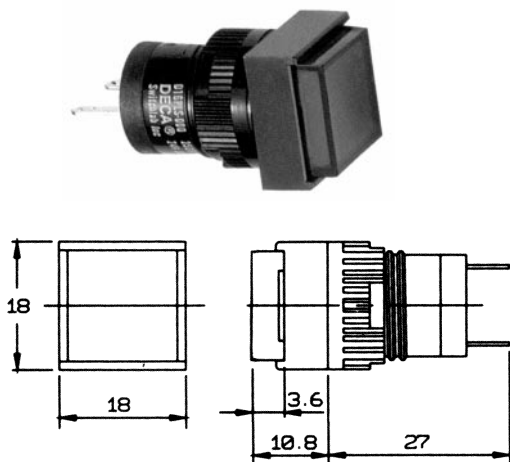
■ Bottom view



■ Dimensions, mm

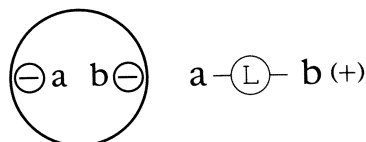


SQUARE HEAD PILOT INDICATORS

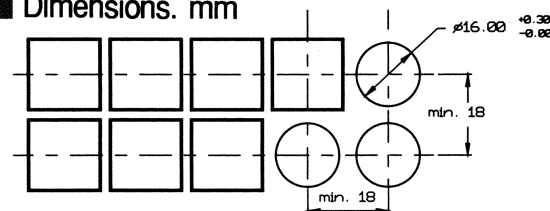


Accessories see page 13~14
 Technical data see page 2
 Ordering information see page 7

■ Bottom view



■ Dimensions, mm



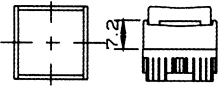
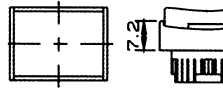
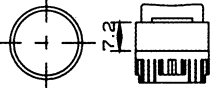
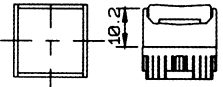
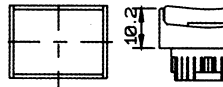
SOLDERING TYPE PUSHBUTTON SWITCHES & INDICATORS ORDER INFORMATION

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 :

Standard edge	S1		T1		R1	
High edge	S2		T2			

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