

TP2

Panel Mounted

Push Button

TP2

Panel cut-out (mm) \varnothing 16.2/22.5

- Characteristics
- momentary or latching
 - sealed IP40, IP65 or IP67
 - wide range of bezels
 - with or without illumination
 - NO, NC, CO
 - gold plated single or double pole contact blocks

Rating 250 VAC, 5 A

Dimensions (mm) 18 × 24
18 × 18
 \varnothing 18
 \varnothing 25

Actuator lenses in different shapes and colours

Approvals UL, CSA, VDE



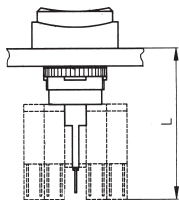
Popular products

| Ordering Reference | Panel cut-out | Function | Actuator style | Terminals | Electrical rating |
|--------------------|-----------------------|-----------------|---------------------------------------|---------------------|-------------------|
| TP21LAAC1C1A4CN | \varnothing 16.2 mm | Latching; IP40 | 18 × 24 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP21LDAC1C1D4CN | \varnothing 16.2 mm | Latching; IP40 | \varnothing 18 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP21MAAC1C1A4CN | \varnothing 16.2 mm | Momentary; IP40 | 18 × 24 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP21MDAC1C1D4CN | \varnothing 16.2 mm | Momentary; IP40 | \varnothing 18 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP22LFAC1C1F4CN | \varnothing 22.5 mm | Latching; IP65 | \varnothing 25 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP22MFAC1C1F4CN | \varnothing 22.5 mm | Momentary; IP65 | \varnothing 25 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |

Specifications

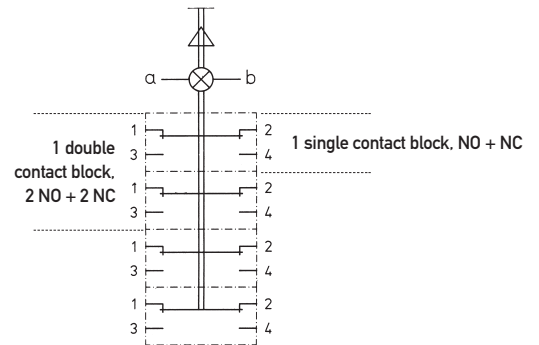
| | |
|--------------------------|---|
| Mechanism | Bi-functional – momentary or latching |
| Actuating force | Approximately 2.5N – 1 contact block |
| Mounting | Central fixing with metal lock nut |
| Protection | IP40, IP65, IP67 |
| Bezel material | Thermoplastic or anodized aluminium alloy |
| Lens material | Polycarbonate – engravable |
| Illumination | T1 ¾ midget grooved lamps – incandescent lamps , LEDs, multi LEDs 60 V, 1.2W maximum Lamp contact "b" = cathode (-) Appropriate safety regulations should be respected when using the indicator light. |
| Temperature range °C | -30°C to +80°C |
| Mechanical life | 10 ⁶ cycles |
| Contact block | Slide-on assembly by the user with locking mechanism |
| Contact block housing | Self-extinguishing duroplastic (UL 94 plus V0) |
| Terminal material | Silver alloy with 0.2 µm silver plating, 0.4 µm gold plating |
| Contact resistance | <30 mOhm |
| Number of contact blocks | User configurable NO or NC types up to a maximum of 2 double contact blocks |
| Terminals | Solder – suitable for wire diameter 1 × 1.00 mm ² (braided), 2 × 0.75 mm (stranded) Faston – 2.8 mm × 0.5 mm |
| Vibration resistance | 1.5 mm pp amplitude at 55 Hz |

Dimensions



| | |
|--|------|
| Length in mm (with contact block) | |
| plastic bezels | 43.0 |
| aluminium bezels | 42.0 |
| aluminium bezels concealed mounting | 50.0 |

Circuit diagram (2 double contact blocks)



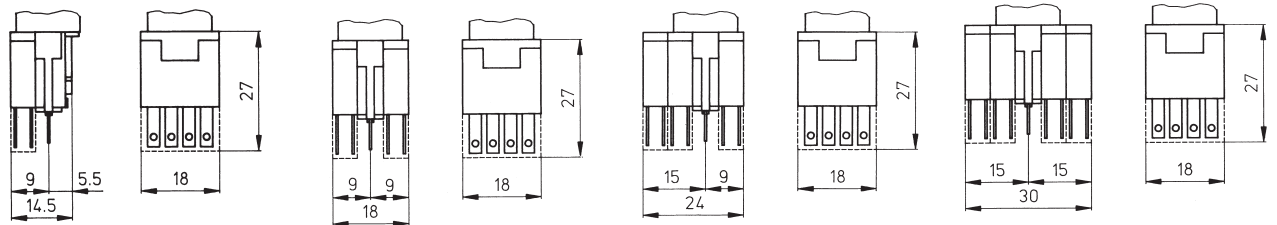
Contact blocks

1 single contact block

2 single contact blocks

1 single contact block +
1 double contact block

2 double contact blocks

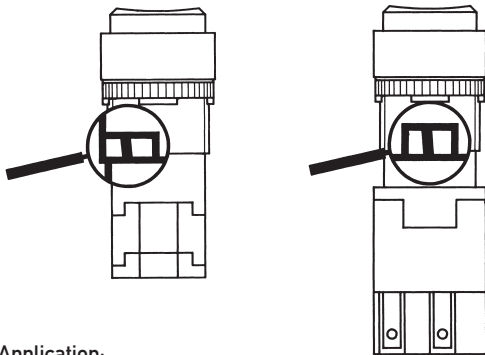


Recommended maximum electrical ratings

| Voltage (max) 250 VAC | Resistive load (A) 5.0 (0.7 pf) | Inductive load (A) | Approval UL, CSA, VDE - max. admissible circuit breaker C6A |
|--------------------------|--------------------------------------|--------------------|--|
| 12 VDC | 5.0 | 3.0 | General rating |
| 24 VDC | 4.0 | 2.0 | General rating |
| 36 VDC | 3.0 | 1.7 | General rating |
| 48 VDC | 2.0 | 1.5 | General rating |
| 60 VDC | 1.5 | 1.2 | General rating |
| 125 VDC | 0.5 | 0.3 | General rating |
| 250 VDC | 0.3 | 0.2 | General rating |
| Electrical life | 70,000 cycles at 5A, 250 VAC, 0.7 pf | | |

Bi-functional selection

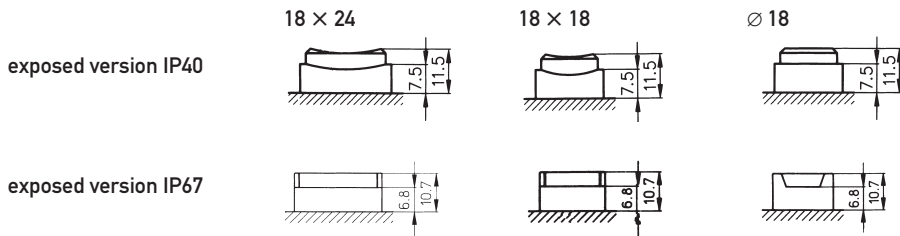
All latching switches in the range incorporate a simple selector mechanism for modifying the function of the switch. This function is not available with momentary switches.



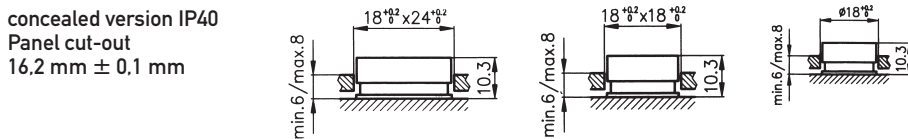
Application:

When the switch is in the off position the selector mechanism can be moved to the right to obtain a momentary function, or to the left to return to a latching function.

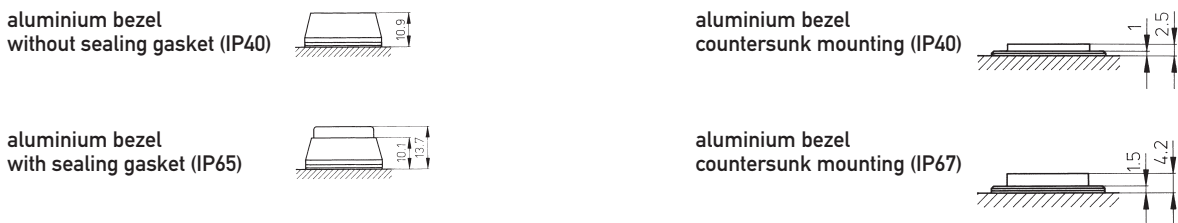
Plastic bezel and lens heights in mm (switch off position)



Panel cut-out exposed version 16.2 ± 0.1 mm



Aluminium bezel ∅ 25 and lens heights in mm (switch off position)



Panel cut-out 22.5 ± 0.1 mm

| | | |
|-----------------------|----------------------|-------------------|
| Front panel thickness | plastic bezel | 1.0 mm to 6.5 mm |
| | aluminium bezel | 1.0 mm to 5.0 mm |
| | countersunk mounting | 2.0 mm to 15.0 mm |

Ordering Reference

| | | | | | |
|-----------------------------------|-----------------------------------|------------------------------|-----------------------|------------------------|---|
| Range | TP2 | | | | |
| Panel cut-out | 1 | 16.2 mm | | | |
| Switch body | (A) | MAA | Function Momentary | Actuator 18 × 24 mm | Housing (plastic) Exposed ; IP40; faston |
| | | MAB | Momentary | 18 × 24 mm | Concealed ; IP40; faston |
| | | MAC | Momentary | 18 × 24 mm | Exposed ; IP67; faston |
| | | LAA | Latching_ | 18 × 24 mm | Exposed ; IP40; faston |
| | | LAB | Latching_ | 18 × 24 mm | Concealed ; IP40; faston |
| | | LAC | Latching_ | 18 × 24 mm | Exposed ; IP67; faston |
| | (B) | MBA | Momentary | 18 × 18 mm | Exposed ; IP40; faston |
| | | MBB | Momentary | 18 × 18 mm | Concealed ; IP40; faston |
| | | MBC | Momentary | 18 × 18 mm | Exposed ; IP67; faston |
| | | LBA | Latching_ | 18 × 18 mm | Exposed ; IP40; faston |
| | | LBB | Latching_ | 18 × 18 mm | Concealed ; IP40; faston |
| | | LBC | Latching_ | 18 × 18 mm | Exposed ; IP67; faston |
| | (C) | MDA | Momentary | Ø 18 mm | Exposed ; IP40; faston |
| | | MDB | Momentary | Ø 18 mm | Concealed ; IP40; faston |
| | | MDC | Momentary | Ø 18 mm | Exposed ; IP67; faston |
| | | LDA | Latching_ | Ø 18 mm | Exposed ; IP40; faston |
| | | LDB | Latching_ | Ø 18 mm | Concealed ; IP40; faston |
| | | LDC | Latching_ | Ø 18 mm | Exposed ; IP67; faston |
| Contact block, gold Position 1 | XX | Without contact block | | Terminals | |
| | A1 | NO | | 2.8 × 0.5mm | |
| | A9 | NO | | Insulated faston | |
| | A8 | NO | | Solder | |
| | B1 | NC | | 2.8 × 0.5mm | |
| | B9 | NC | | Insulated faston | |
| | B8 | NC | | Solder | |
| | C1 | 1 NO + 1 NC | | 2.8 × 0.5mm | |
| | C9 | 1 NO + 1 NC | | Insulated faston | |
| | C8 | 1 NO + 1 NC | | Solder | |
| | D1 | 2 NO + 2 NC | | 2.8 × 0.5mm | |
| | D9 | 2 NO + 2 NC | | Insulated faston | |
| | D8 | 2 NO + 2 NC | | Solder | |
| | Contact block, gold Position 2 | XX | Without contact block | | Terminals |
| A1 | | NO | | 2.8 × 0.5mm | |
| A9 | | NO | | Insulated faston | |
| A8 | | NO | | Solder | |
| B1 | | NC | | 2.8 × 0.5mm | |
| B9 | | NC | | Insulated faston | |
| B8 | | NC | | Solder | |
| C1 | | 1 NO + 1 NC | | 2.8 × 0.5mm | |
| C9 | | 1 NO + 1 NC | | Insulated faston | |
| C8 | | 1 NO + 1 NC | | Solder | |
| D1 | | 2 NO + 2 NC | | 2.8 × 0.5mm | |
| D9 | | 2 NO + 2 NC | | Insulated faston | |
| D8 | | 2 NO + 2 NC | | Solder | |
| Lens, transparent | | For Switch body style (A) | A0 | White | Exposed 15 × 21 mm |
| | A1 | | Yellow | 15 × 21 mm | 18 × 24 mm |
| | A2 | | Green | 15 × 21 mm | 18 × 24 mm |
| | A3 | | Blue | 15 × 21 mm | 18 × 24 mm |
| | A4 | | Red | 15 × 21 mm | 18 × 24 mm |
| | A6 | | Orange | 15 × 21 mm | 18 × 24 mm |
| | For Switch body style (B) | B0 | White | 15 × 15 mm | 18 × 18 mm |
| | | B1 | Yellow | 15 × 15 mm | 18 × 18 mm |
| | | B2 | Green | 15 × 15 mm | 18 × 18 mm |
| | | B3 | Blue | 15 × 15 mm | 18 × 18 mm |
| | | B4 | Red | 15 × 15 mm | 18 × 18 mm |
| | | B6 | Orange | 15 × 15 mm | 18 × 18 mm |
| | For Switch body style (C) | D0 | White | Ø 15 mm | Ø 18 mm |
| | | D1 | Yellow | Ø 15 mm | Ø 18 mm |
| | | D2 | Green | Ø 15 mm | Ø 18 mm |
| | | D3 | Blue | Ø 15 mm | Ø 18 mm |
| | | D4 | Red | Ø 15 mm | Ø 18 mm |
| | | D6 | Orange | Ø 15 mm | Ø 18 mm |
| Illumination | X | Non illuminated | | | |
| | A | 6V | | | |
| | B | 12V | | | |
| | C | 24V | | | |
| | F | 48V | | | |
| Illumination Colour | X | Non illuminated | | | |
| | N | Incandescent lamp | | | |
| | 1 | Yellow LED | | | |
| | 2 | Green LED | | | |
| | 4 | Red LED | | | |

Note: Contact blocks will be supplied unassembled

Ordering Reference

| | | | |
|---|---------------|-----------------------|---|
| Range | TP2 | | |
| Panel cut-out | 2 | 22.5 mm | |
| Switch body (A) | Function | Actuator | Housing |
| | MFA Momentary | Ø 25 | Exposed plastic; IP65; faston |
| | LFA Latching_ | Ø 25 | Exposed plastic; IP65; faston |
| | (B) | | |
| | MFB Momentary | Ø 25 | Exposed aluminium; IP40 / IP65*; faston |
| | LFB Latching_ | Ø 25 | Exposed aluminium; IP40 / IP65*; faston |
| | MFC Momentary | Ø 25 | Exposed aluminium; IP65* with silicon cap; faston |
| | LFC Latching_ | Ø 25 | Exposed aluminium; IP65* with silicon cap; faston |
| | MFD Momentary | Ø 25 | Flush-aluminium; IP40; faston |
| | LFD Latching_ | Ø 25 | Flush-aluminium; IP40; faston |
| | MFE Momentary | Ø 25 | Flush-aluminium; IP67; faston |
| | LFE Latching_ | Ø 25 | Flush-aluminium; IP67; faston |
| Contact block, gold Position 1 | XX | Without contact block | |
| | A1 | NO | 2.8 × 0.5mm |
| | A9 | NO | Insulated faston |
| | A8 | NO | Solder |
| | B1 | NC | 2.8 × 0.5mm |
| | B9 | NC | Insulated faston |
| | B8 | NC | Solder |
| | C1 | 1 NO + 1 NC | 2.8 × 0.5mm |
| | C9 | 1 NO + 1 NC | Insulated faston |
| | C8 | 1 NO + 1 NC | Solder |
| | D1 | 2 NO + 2 NC | 2.8 × 0.5mm |
| | D9 | 2 NO + 2 NC | Insulated faston |
| D8 | 2 NO + 2 NC | Solder | |
| Contact block, gold Position 2 | XX | Without contact block | |
| | A1 | NO | 2.8 × 0.5mm |
| | A9 | NO | Insulated faston |
| | A8 | NO | Solder |
| | B1 | NC | 2.8 × 0.5mm |
| | B9 | NC | Insulated faston |
| | B8 | NC | Solder |
| | C1 | 1 NO + 1 NC | 2.8 × 0.5mm |
| | C9 | 1 NO + 1 NC | Insulated faston |
| | C8 | 1 NO + 1 NC | Solder |
| | D1 | 2 NO + 2 NC | 2.8 × 0.5mm |
| | D9 | 2 NO + 2 NC | Insulated faston |
| D8 | 2 NO + 2 NC | Solder | |
| Lens, transparent For Switch body style (A) | E0 | White | Ø 21 |
| | E1 | Yellow | Ø 21 |
| | E2 | Green | Ø 21 |
| | E3 | Blue | Ø 21 |
| | E4 | Red | Ø 21 |
| | E6 | Orange | Ø 21 |
| For Switch body style (B) | F0 | White | Ø 18 |
| | F1 | Yellow | Ø 18 |
| | F2 | Green | Ø 18 |
| | F3 | Blue | Ø 18 |
| | F4 | Red | Ø 18 |
| | F6 | Orange | Ø 18 |
| Illumination | X | Non illuminated | |
| | A | 6V | |
| | B | 12V | |
| | C | 24V | |
| | F | 48V | |
| Illumination Colour | X | Non illuminated | |
| | N | Incandescent lamp | |
| | 1 | Yellow LED | |
| | 2 | Green LED | |
| | 4 | Red LED | |

Note: Contact blocks will be supplied unassembled