# TP2

## TP2

| | |
|---|---|
| Panel cut-out (mm) | Ø 16.2 or Ø 22.5 |
| Characteristics | ▪ momentary or latching<br>▪ sealed IP40, IP65 or IP67<br>▪ wide range of bezels<br>▪ with or without illumination<br>▪ NO, NC, CO<br>▪ gold plated single or double pole contact blocks |
| Rating | 250 VAC, 5 A |
| Dimensions (mm) | 18 × 24<br>18 × 18<br>Ø 18<br>Ø 25 |
| Actuator | ▪ lenses in different shapes and colors |
| Approvals | UL, CSA, VDE |



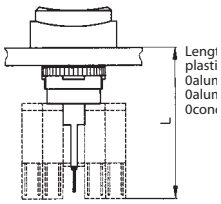
## Popular products

| Ordering Reference | Panel cut-out | Function | Actuator style | Terminals | Electrical rating |
|---|---|---|---|---|---|
| TP21LAAC1C1A4CN | Ø 16.2 mm | Latching; IP40 | 18 × 24 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP21LDAC1C1D4CN | Ø 16.2 mm | Latching; IP40 | Ø 18 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP21MAAC1C1A4CN | Ø 16.2 mm | Momentary; IP40 | 18 × 24 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP21MDAC1C1D4CN | Ø 16.2 mm | Momentary; IP40 | Ø 18 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP22LFAC1C1E4CN | Ø 22.5 mm | Latching; IP65 | Ø 25 mm, red Illumination | 2.8 × 0.5 mm faston | 250 VAC, 5A |
| TP22MFAC1C1E4CN | Ø 22.5 mm | Momentary; IP65 | Ø 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 aluminum alloy |
| Lens material | Polycarbonate – engravable |
| Illumination | T1 ¾ midget grooved lamps – incandescent lamps , LEDs, multi LEDs<br>60 V, 1.2W maximum<br>Lamp contact "b" = cathode (-)<br>Appropriate safety regulations should be respected when using the indicator light. |
| Temperature range °C | -25°C to +85°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 mm² (braided), 2 × 0.75 mm (stranded)<br>Faston – 2.8 mm × 0.5 mm |
| Vibration resistance | 1.5 mm pp amplitude at 55 Hz |

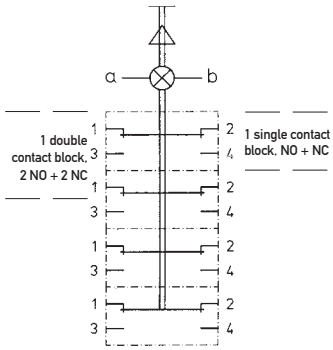
Dimensions



Length in mm (with contact block)

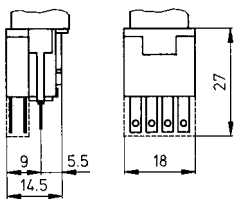
| | |
|---|---|
| plastic bezels | 43.0 |
| aluminum bezels | 42.0 |
| aluminum bezels | 50.0 |
| concealed mounting | |

Circuit diagram (2 double contact blocks)

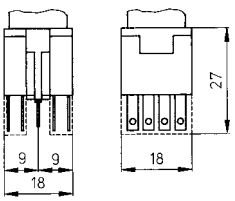



Contact blocks

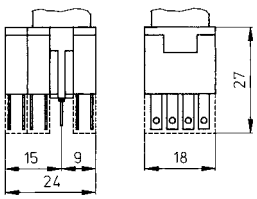
1 single contact block



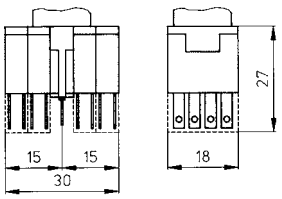

2 single contact blocks




1 single contact block + 1 double contact block




2 double contact blocks




## Recommended maximum electrical ratings

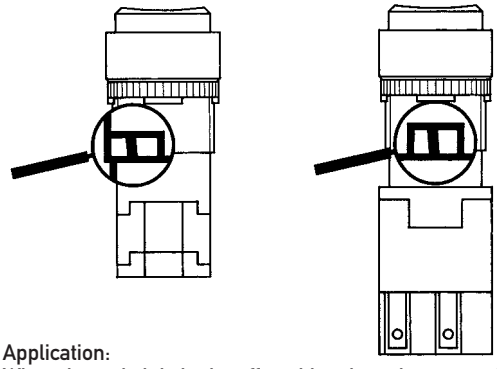
| Voltage (max) 250 VAC | Resistive load (A) 5.0 (0.7 pf) | Inductive load (A) L/R = 15 ms | Approval UL, CSA, VDE - max. admissible circuit breaker C6A |
|---|---|---|---|
| 12 VDC | 5,0 | 3,0 | General rating |
| 24 VDC | 4,0 | 2,0 | General rating |
| 36 VDC | 3,0 | 1,7 | General rating |
| 48 VDC | 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 50,000 cycles at 5A, 250 VAC, 0.7 pf

# TP2

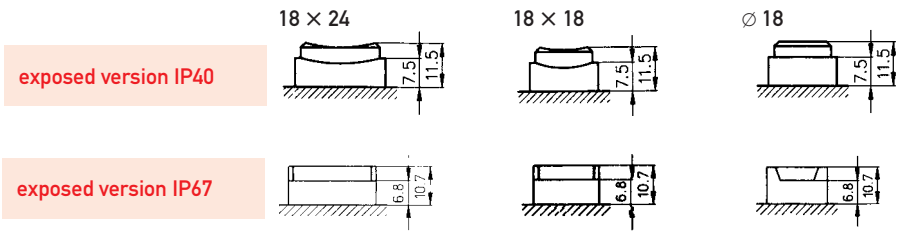
Bi-functional selection

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.

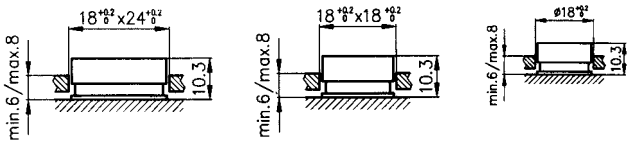


Application:
When the switch is in the off position the selector mechanism can be moved to the right to obtain a momentary function, or to the left to return to a latching function.

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

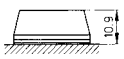



Panel cut-out exposed version 16.2 ±0.1 mm

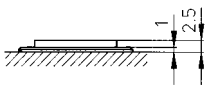



Aluminum bezel ∅ 25 and lens heights in mm (switch off position)

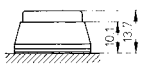
aluminum bezel
without sealing gasket (IP40)



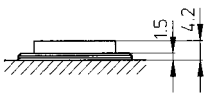
aluminum bezel
countersunk mounting (IP40)




aluminum bezel
with sealing gasket (IP65)



aluminum bezel
countersunk mounting (IP67)




Panel cut-out 22.5 ±0.1 mm

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

## Ordering Reference

Example: TP2 | 1 | MAA | A1 | A1 | A0 | A | N

**Basic type**: TP2

**Panel cut-out**

| | | |
|---|---|---|
| 1 | Ø 16.2 mm | |

**Switch body (A)**

| | Function | Actuator | Housing (plastic) | Part No. |
|---|---|---|---|---|
| MAA | Momentary | 18 × 24 mm | Exposed ; IP40; faston | TH501008000 |
| LAA | Latching_ | 18 × 24 mm | Exposed ; IP40; faston | TH511008000 |
| MAC | Momentary | 18 × 24 mm | Exposed ; IP67; faston | TH501015000 |
| LAC | Latching_ | 18 × 24 mm | Exposed ; IP67; faston | TH511015000 |
| MAB | Momentary | 18 × 24 mm | Concealed ; IP40; faston | TH501002000 |
| LAB | Latching_ | 18 × 24 mm | Concealed ; IP40; faston | TH511002000 |

**(B)**

| | | | | |
|---|---|---|---|---|
| MBA | Momentary | 18 × 18 mm | Exposed ; IP40; faston | TH503008000 |
| LBA | Latching_ | 18 × 18 mm | Exposed ; IP40; faston | TH513008000 |
| MBC | Momentary | 18 × 18 mm | Exposed ; IP67; faston | TH503015000 |
| LBC | Latching_ | 18 × 18 mm | Exposed ; IP67; faston | TH513015000 |
| MBB | Momentary | 18 × 18 mm | Concealed ; IP40; faston | TH503002000 |
| LBB | Latching_ | 18 × 18 mm | Concealed ; IP40; faston | TH513002000 |

**(C)**

| | | | | |
|---|---|---|---|---|
| MDA | Momentary | Ø 18 mm | Exposed ; IP40; faston | TH505008000 |
| LDA | Latching_ | Ø 18 mm | Exposed ; IP40; faston | TH515008000 |
| MDC | Momentary | Ø 18 mm | Exposed ; IP67; faston | TH505015000 |
| LDC | Latching_ | Ø 18 mm | Exposed ; IP67; faston | TH515015000 |
| MDB | Momentary | Ø 18 mm | Concealed ; IP40; faston | TH505002000 |
| LDB | Latching_ | Ø 18 mm | Concealed ; IP40; faston | TH515002000 |

**Contact block, gold Position 1**

| | | Terminals | Part No. |
|---|---|---|---|
| XX | No Contact Blocks | | |
| A1 | NO | 2.8 × 0.5mm | TH593566020 |
| A9 | NO | Insulated faston | TH593560020 |
| A8 | NO | Solder | TH593561020 |
| B1 | NC | 2.8 × 0.5mm | TH593566050 |
| B9 | NC | Insulated faston | TH593560050 |
| B8 | NC | Solder | TH593561050 |
| C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| C8 | 1 NO + 1 NC | Solder | TH593561000 |
| D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593567000 |
| D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| D8 | 2 NO + 2 NC | Solder | TH593564000 |

**Contact block, gold Position 2**

| | | Terminals | Part No. |
|---|---|---|---|
| XX | No Contact Blocks | | |
| A1 | NO | 2.8 × 0.5mm | TH593566020 |
| A9 | NO | Insulated faston | TH593560020 |
| A8 | NO | Solder | TH593561020 |
| B1 | NC | 2.8 × 0.5mm | TH593566050 |
| B9 | NC | Insulated faston | TH593560050 |
| B8 | NC | Solder | TH593561050 |
| C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| C8 | 1 NO + 1 NC | Solder | TH593561000 |
| D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593567000 |
| D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| D8 | 2 NO + 2 NC | Solder | TH593564000 |

**Lens, transparent For Switch body style (A)**

| | | Exposed | Exposed IP40 | Exposed IP67 | Concealed | Concealed IP 40 |
|---|---|---|---|---|---|---|
| A0 | White | 15 × 21 mm | TH461021000 | TH561011000 | 18 × 24 mm | TH461017000 |
| A1 | Yellow | 15 × 21 mm | TH461121000 | TH561111000 | 18 × 24 mm | TH461117000 |
| A2 | Green | 15 × 21 mm | TH461221000 | TH561211000 | 18 × 24 mm | TH461217000 |
| A3 | Blue | 15 × 21 mm | TH461321000 | TH561311000 | 18 × 24 mm | TH461317000 |
| A4 | Red | 15 × 21 mm | TH461421000 | TH561411000 | 18 × 24 mm | TH461417000 |
| A6 | Orange | 15 × 21 mm | TH461621000 | TH561611000 | 18 × 24 mm | TH461617000 |

**For Switch body style (B)**

| | | | | | | |
|---|---|---|---|---|---|---|
| B0 | White | 15 × 15 mm | TH463021000 | TH563011000 | 18 × 18 mm | TH463018000 |
| B1 | Yellow | 15 × 15 mm | TH463121000 | TH563111000 | 18 × 18 mm | TH463118000 |
| B2 | Green | 15 × 15 mm | TH463221000 | TH563211000 | 18 × 18 mm | TH463218000 |
| B3 | Blue | 15 × 15 mm | TH463321000 | TH563311000 | 18 × 18 mm | TH463318000 |
| B4 | Red | 15 × 15 mm | TH463421000 | TH563411000 | 18 × 18 mm | TH463418000 |
| B6 | Orange | 15 × 15 mm | TH463621000 | TH563611000 | 18 × 18 mm | TH463618000 |

**For Switch body style (C)**

| | | | | | | |
|---|---|---|---|---|---|---|
| D0 | White | Ø 15 mm | TH465021000 | TH565011000 | Ø 18 mm | TH465015000 |
| D1 | Yellow | Ø 15 mm | TH465121000 | TH565111000 | Ø 18 mm | TH465115000 |
| D2 | Green | Ø 15 mm | TH465221000 | TH565211000 | Ø 18 mm | TH465215000 |
| D3 | Blue | Ø 15 mm | TH465321000 | TH565311000 | Ø 18 mm | TH465315000 |
| D4 | Red | Ø 15 mm | TH465421000 | TH565411000 | Ø 18 mm | TH465415000 |
| D6 | Orange | Ø 15 mm | TH465621000 | TH565611000 | Ø 18 mm | TH465615000 |

**Illumination**

| | |
|---|---|
| X | Non illuminated |
| A | 6V |
| B | 12V |
| C | 24V |
| F | 48V |

**Illumination Color**

| | | | | | |
|---|---|---|---|---|---|
| X | Non illuminated | | | | |
| N | Incandescent lamp | 6 V, 200 mA<br>TH590000000 | 12 V, 80 mA<br>TH590001000 | 24 V, 50 mA<br>TH590006000 | 48 V, 25 mA<br>TH590004000 |
| | | 6 V AC/DC, 45 mA | 12 V AC/DC, 25 mA | 24 V AC/DC, 12,5 mA | 48 V AC/DC, 12,5 mA |
| 1 | Yellow LED | TH590231000 | TH590234000 | TH590237000 | TH590240000 |
| 2 | Green LED | TH590232000 | TH590235000 | TH590238000 | TH590241000 |
| 4 | Red LED | TH590230000 | TH590233000 | TH590236000 | TH590239000 |

Note: Contact blocks will be supplied unassembled

# TP2

## Ordering Reference

| | | | | | | Example: TP2 | 1 | MAD | A1 | A1 | A0 | A | N |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Basic type | TP2 | | | | | | | | | | | | |
| Panel cut-out | 1 | Ø 16.2 mm | | | | | | | | | | | |
| | | Function | Actuator | Housing (plastic) | Part No. | | | | | | | | |
| Switch body (A) | MAD | Momentary | 18 × 24 mm | Exposed ; IP40; solder | TH501108000 | | | | | | | | |
| | LAD | Latching_ | 18 × 24 mm | Exposed ; IP40; solder | TH511108000 | | | | | | | | |
| | MAF | Momentary | 18 × 24 mm | Exposed ; IP67; solder | TH501115000 | | | | | | | | |
| | LAF | Latching_ | 18 × 24 mm | Exposed ; IP67; solder | TH511115000 | | | | | | | | |
| | MAE | Momentary | 18 × 24 mm | Concealed ; IP40; solder | TH501102000 | | | | | | | | |
| | LAE | Latching_ | 18 × 24 mm | Concealed ; IP40; solder | TH511102000 | | | | | | | | |
| (B) | MBD | Momentary | 18 × 18 mm | Exposed ; IP40; solder | TH503108000 | | | | | | | | |
| | LBD | Latching_ | 18 × 18 mm | Exposed ; IP40; solder | TH513108000 | | | | | | | | |
| | MBF | Momentary | 18 × 18 mm | Exposed ; IP67; solder | TH503115000 | | | | | | | | |
| | LBF | Latching_ | 18 × 18 mm | Exposed ; IP67; solder | TH513115000 | | | | | | | | |
| | MBE | Momentary | 18 × 18 mm | Concealed ; IP40; solder | TH503102000 | | | | | | | | |
| | LBE | Latching_ | 18 × 18 mm | Concealed ; IP40; solder | TH513102000 | | | | | | | | |
| (C) | MDD | Momentary | Ø 18 mm | Exposed ; IP40; solder | TH505108000 | | | | | | | | |
| | LDD | Latching_ | Ø 18 mm | Exposed ; IP40; solder | TH515108000 | | | | | | | | |
| | MDF | Momentary | Ø 18 mm | Exposed ; IP67; solder | TH505115000 | | | | | | | | |
| | LDF | Latching_ | Ø 18 mm | Exposed ; IP67; solder | TH515115000 | | | | | | | | |
| | MDE | Momentary | Ø 18 mm | Concealed ; IP40; solder | TH505102000 | | | | | | | | |
| | LDE | Latching_ | Ø 18 mm | Concealed ; IP40; solder | TH515102000 | | | | | | | | |

| | | | Terminals | Part No. |
|---|---|---|---|---|
| Contact block, gold Position 1 | XX | No Contact Blocks | | |
| | A1 | NO | 2.8 × 0.5mm | TH593566020 |
| | A9 | NO | Insulated faston | TH593560020 |
| | A8 | NO | Solder | TH593561020 |
| | B1 | NC | 2.8 × 0.5mm | TH593566050 |
| | B9 | NC | Insulated faston | TH593560050 |
| | B8 | NC | Solder | TH593561050 |
| | C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| | C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| | C8 | 1 NO + 1 NC | Solder | TH593561000 |
| | D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593567000 |
| | D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| | D8 | 2 NO + 2 NC | Solder | TH593564000 |

| | | | Terminals | Part No. |
|---|---|---|---|---|
| Contact block, gold Position 2 | XX | No Contact Blocks | | |
| | A1 | NO | 2.8 × 0.5mm | TH593566020 |
| | A9 | NO | Insulated faston | TH593560020 |
| | A8 | NO | Solder | TH593561020 |
| | B1 | NC | 2.8 × 0.5mm | TH593566050 |
| | B9 | NC | Insulated faston | TH593560050 |
| | B8 | NC | Solder | TH593561050 |
| | C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| | C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| | C8 | 1 NO + 1 NC | Solder | TH593561000 |
| | D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593567000 |
| | D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| | D8 | 2 NO + 2 NC | Solder | TH593564000 |

| | | | Exposed | Exposed IP40 | Exposed IP67 | Concealed | Concealed IP 40 |
|---|---|---|---|---|---|---|---|
| Lens, transparent For Switch body style (A) | A0 | White | 15 × 21 mm | TH461021000 | TH561011000 | 18 × 24 mm | TH461017000 |
| | A1 | Yellow | 15 × 21 mm | TH461121000 | TH561111000 | 18 × 24 mm | TH461117000 |
| | A2 | Green | 15 × 21 mm | TH461221000 | TH561211000 | 18 × 24 mm | TH461217000 |
| | A3 | Blue | 15 × 21 mm | TH461321000 | TH561311000 | 18 × 24 mm | TH461317000 |
| | A4 | Red | 15 × 21 mm | TH461421000 | TH561411000 | 18 × 24 mm | TH461417000 |
| | A6 | Orange | 15 × 21 mm | TH461621000 | TH561611000 | 18 × 24 mm | TH461617000 |
| For Switch body style (B) | B0 | White | 15 × 15 mm | TH463021000 | TH563011000 | 18 × 18 mm | TH463018000 |
| | B1 | Yellow | 15 × 15 mm | TH463121000 | TH563111000 | 18 × 18 mm | TH463118000 |
| | B2 | Green | 15 × 15 mm | TH463221000 | TH563211000 | 18 × 18 mm | TH463218000 |
| | B3 | Blue | 15 × 15 mm | TH463321000 | TH563311000 | 18 × 18 mm | TH463318000 |
| | B4 | Red | 15 × 15 mm | TH463421000 | TH563411000 | 18 × 18 mm | TH463418000 |
| | B6 | Orange | 15 × 15 mm | TH463621000 | TH563611000 | 18 × 18 mm | TH463618000 |
| For Switch body style (C) | D0 | White | Ø 15 mm | TH465021000 | TH565011000 | Ø 18 mm | TH465015000 |
| | D1 | Yellow | Ø 15 mm | TH465121000 | TH565111000 | Ø 18 mm | TH465115000 |
| | D2 | Green | Ø 15 mm | TH465221000 | TH565211000 | Ø 18 mm | TH465215000 |
| | D3 | Blue | Ø 15 mm | TH465321000 | TH565311000 | Ø 18 mm | TH465315000 |
| | D4 | Red | Ø 15 mm | TH465421000 | TH565411000 | Ø 18 mm | TH465415000 |
| | D6 | Orange | Ø 15 mm | TH465621000 | TH565611000 | Ø 18 mm | TH465615000 |

| | | | | | | |
|---|---|---|---|---|---|---|
| Illumination | X | Non illuminated | | | | |
| | A | 6V | | | | |
| | B | 12V | | | | |
| | C | 24V | | | | |
| | F | 48V | | | | |
| Illumination Color | X | Non illuminated | | | | |
| | N | Incandescent lamp | 6 V, 200 mA<br>TH590000000 | 12 V, 80 mA<br>TH590001000 | 24 V, 50 mA<br>TH590006000 | 48 V, 25 mA<br>TH590004000 |
| | | | 6 V AC/DC, 45 mA | 12 V AC/DC, 25 mA | 24 V AC/DC, 12,5 mA | 48 V AC/DC, 12,5 mA |
| | 1 | Yellow LED | TH590231000 | TH590234000 | TH590237000 | TH590240000 |
| | 2 | Green LED | TH590232000 | TH590235000 | TH590238000 | TH590241000 |
| | 4 | Red LED | TH590230000 | TH590233000 | TH590236000 | TH590239000 |

Note: Contact blocks will be supplied unassembled

## Ordering Reference

Example: TP2 | 2 | MFA | A1 | A1 | E0 | A | N

**Basic type** TP2

**Panel cut-out** 2 Ø 22.5 mm

**Switch body (A) (B)**

| | Function | Actuator | Housing | Part No. |
|---|---|---|---|---|
| MFA | Momentary | Ø 25 | Exposed plastic; IP65; faston | TH505020000 |
| LFA | Latching_ | Ø 25 | Exposed plastic; IP65; faston | TH515020000 |
| MFB | Momentary | Ø 25 | Exposed aluminum; IP40 / IP65*; faston | TH505018000 |
| LFB | Latching_ | Ø 25 | Exposed aluminum; IP40 / IP65*; faston | TH515018000 |
| MFC | Momentary | Ø 25 | Exposed aluminum; IP65* with silicon cap; faston | TH505033000 |
| LFC | Latching_ | Ø 25 | Exposed aluminum; IP65* with silicon cap; faston | TH515033000 |
| MFD | Momentary | Ø 25 | Flush-aluminum; IP40; faston | TH505050000 |
| LFD | Latching_ | Ø 25 | Flush-aluminum; IP40; faston | TH515050000 |
| MFE | Momentary | Ø 25 | Flush-aluminum; IP67; faston | TH505051000 |
| LFE | Latching_ | Ø 25 | Flush-aluminum; IP67; faston | TH515051000 |

**Contact block, gold Position 1**

| | | Terminals | Part No. |
|---|---|---|---|
| XX | No contact blocks | | |
| A1 | NO | 2.8 × 0.5mm | TH593566020 |
| A9 | NO | Insulated faston | TH593560020 |
| A8 | NO | Solder | TH593561020 |
| B1 | NC | 2.8 × 0.5mm | TH593566050 |
| B9 | NC | Insulated faston | TH593560050 |
| B8 | NC | Solder | TH593561050 |
| C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| C8 | 1 NO + 1 NC | Solder | TH593561000 |
| D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593569000 |
| D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| D8 | 2 NO + 2 NC | Solder | TH593564000 |

**Contact block, gold Position 2**

| | | Terminals | Part No. |
|---|---|---|---|
| XX | No contact blocks | | |
| A1 | NO | 2.8 × 0.5mm | TH593566020 |
| A9 | NO | Insulated faston | TH593560020 |
| A8 | NO | Solder | TH593561020 |
| B1 | NC | 2.8 × 0.5mm | TH593566050 |
| B9 | NC | Insulated faston | TH593560050 |
| B8 | NC | Solder | TH593561050 |
| C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| C8 | 1 NO + 1 NC | Solder | TH593561000 |
| D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593569000 |
| D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| D8 | 2 NO + 2 NC | Solder | TH593564000 |

**Lens, transparent For Switch body style (A)**

| | | | | |
|---|---|---|---|---|
| E0 | White | Ø 21 | TH565024000 | For Plastic Bezel only IP65 |
| E1 | Yellow | Ø 21 | TH565124000 | |
| E2 | Green | Ø 21 | TH565224000 | |
| E3 | Blue | Ø 21 | TH565324000 | |
| E4 | Red | Ø 21 | TH565424000 | |
| E6 | Orange | Ø 21 | TH565624000 | |

**For Switch body style (B)**

| | | | IP40/IP65 | IP65 with Silion cap | IP67 | |
|---|---|---|---|---|---|---|
| F0 | White | Ø 18 | TH465015000 | TH465001000 | TH565025000 | For Aluminum Bezel only |
| F1 | Yellow | Ø 18 | TH465115000 | TH465101000 | TH565125000 | |
| F2 | Green | Ø 18 | TH465215000 | TH465201000 | TH565225000 | |
| F3 | Blue | Ø 18 | TH465315000 | TH465301000 | TH565325000 | |
| F4 | Red | Ø 18 | TH465415000 | TH465401000 | TH565425000 | |
| F6 | Orange | Ø 18 | TH465615000 | TH465601000 | TH565625000 | |

**Illumination**

| | |
|---|---|
| X | Non illuminated |
| A | 6V |
| B | 12V |
| C | 24V |
| F | 48V |

**Illumination Color**

| | | | | | |
|---|---|---|---|---|---|
| X | Non illuminated | | | | |
| N | Incandescent lamp | 6 V, 200 mA TH590000000 | 12 V, 80 mA TH590001000 | 24 V, 50 mA TH590006000 | 48 V, 25 mA TH590004000 |
| | | 6 V AC/DC, 45 mA | 12 V AC/DC, 25 mA | 24 V AC/DC, 12,5 mA | 48 V AC/DC, 12,5 mA |
| 1 | Yellow LED | TH590231000 | TH590234000 | TH590237000 | TH590240000 |
| 2 | Green LED | TH590232000 | TH590235000 | TH590238000 | TH590241000 |
| 4 | Red LED | TH590230000 | TH590233000 | TH590236000 | TH590239000 |

Note: Contact blocks will be supplied unassembled

# TP2

## Ordering Reference

Basic type: TP2

Example: TP2 | 2 | MFF | A1 | A1 | E0 | A | N

Panel cut-out: 2 — Ø 22.5 mm

Switch body (A) / (B)

| | Function | Actuator | Housing | Part No. |
|---|---|---|---|---|
| MFF | Momentary | Ø 25 | Exposed plastic; IP65; solder | TH505120000 |
| LFF | Latching | Ø 25 | Exposed plastic; IP65; solder | TH515120000 |
| MFG | Momentary | Ø 25 | Exposed aluminum; IP40 / IP65*; solder | TH505118000 |
| LFG | Latching | Ø 25 | Exposed aluminum; IP40 / IP65*; solder | TH515118000 |
| MFH | Momentary | Ø 25 | Exposed aluminum; IP65* with silicon cap; solder | TH505133000 |
| LFH | Latching | Ø 25 | Exposed aluminum; IP65* with silicon cap; solder | TH515133000 |
| MFJ | Momentary | Ø 25 | Flush-aluminum; IP40; solder | TH505150000 |
| LFJ | Latching | Ø 25 | Flush-aluminum; IP40; solder | TH515150000 |
| MFK | Momentary | Ø 25 | Flush-aluminum; IP67; solder | TH505151000 |
| LFK | Latching | Ø 25 | Flush-aluminum; IP67; solder | TH515151000 |

Contact block, gold Position 1

| | | Terminals | Part No. |
|---|---|---|---|
| XX | No Contact Blocks | | |
| A1 | NO | 2.8 × 0.5mm | TH593566020 |
| A9 | NO | Insulated faston | TH593560020 |
| A8 | NO | Solder | TH593561020 |
| B1 | NC | 2.8 × 0.5mm | TH593566050 |
| B9 | NC | Insulated faston | TH593560050 |
| B8 | NC | Solder | TH593561050 |
| C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| C8 | 1 NO + 1 NC | Solder | TH593561000 |
| D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593567000 |
| D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| D8 | 2 NO + 2 NC | Solder | TH593564000 |

Contact block, gold Position 2

| | | Terminals | Part No. |
|---|---|---|---|
| XX | No Contact Blocks | | |
| A1 | NO | 2.8 × 0.5mm | TH593566020 |
| A9 | NO | Insulated faston | TH593560020 |
| A8 | NO | Solder | TH593561020 |
| B1 | NC | 2.8 × 0.5mm | TH593566050 |
| B8 | NC | Solder | TH593561050 |
| C1 | 1 NO + 1 NC | 2.8 × 0.5mm | TH593566000 |
| C9 | 1 NO + 1 NC | Insulated faston | TH593560000 |
| C8 | 1 NO + 1 NC | Solder | TH593561000 |
| D1 | 2 NO + 2 NC | 2.8 × 0.5mm | TH593567000 |
| D9 | 2 NO + 2 NC | Insulated faston | TH593563000 |
| D8 | 2 NO + 2 NC | Solder | TH593564000 |

Lens, transparent For Switch body style (A) — For Plastic Bezel only IP65

| | | | |
|---|---|---|---|
| E0 | White | Ø 21 | TH565024000 |
| E1 | Yellow | Ø 21 | TH565124000 |
| E2 | Green | Ø 21 | TH565224000 |
| E3 | Blue | Ø 21 | TH565324000 |
| E4 | Red | Ø 21 | TH565424000 |
| E6 | Orange | Ø 21 | TH565624000 |

For Switch body style (B) — For Aluminum Bezel only

| | | | IP40/IP65 | IP65 with Silion cap | IP67 |
|---|---|---|---|---|---|
| F0 | White | Ø 18 | TH465015000 | TH465001000 | TH565025000 |
| F1 | Yellow | Ø 18 | TH465115000 | TH465101000 | TH565125000 |
| F2 | Green | Ø 18 | TH465215000 | TH465201000 | TH565225000 |
| F3 | Blue | Ø 18 | TH465315000 | TH465301000 | TH565325000 |
| F4 | Red | Ø 18 | TH465415000 | TH465401000 | TH565425000 |
| F6 | Orange | Ø 18 | TH465615000 | TH465601000 | TH565625000 |

Illumination

| | |
|---|---|
| X | Non illuminated |
| A | 6V |
| B | 12V |
| C | 24V |
| F | 48V |

Illumination Color

| | | | | | |
|---|---|---|---|---|---|
| X | Non illuminated | | | | |
| N | Incandescent lamp | 6V, 200 mA TH590000000 | 12V, 80 mA TH590001000 | 24V, 50 mA TH590006000 | 48V, 25 mA TH590004000 |
| | | 6V AC/DC, 45 mA | 12V AC/DC, 25 mA | 24V AC/DC, 12,5 mA | 48V AC/DC, 12,5 mA |
| 1 | Yellow LED | TH590231000 | TH590234000 | TH590237000 | TH590240000 |
| 2 | Green LED | TH590232000 | TH590235000 | TH590238000 | TH590241000 |
| 4 | Red LED | TH590230000 | TH590233000 | TH590236000 | TH590239000 |

Note: Contact blocks will be supplied unassembled