



Front dimensions: Ø 28 mm  
Panel cut-out: Ø 22.3 mm  
Front bezel height: 2 mm  
Travel: 2.3 mm



 Product configurator



# SHORTRON-M12

Ø 22.3 mm

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Pushbuttons  
and Switches

Panel Mount Jacks

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## General Data

|                               |   |
|-------------------------------|---|
| Type reference:               | S(T)(N)(TLR)(WA)(WB)(L)(SSA...)(x)(I)(O)(OI)(III)_M(01)(02)(03)(04)(05)(06)(07)(08)         |
| Description:                  | Pre-assembled short-stroke pushbutton with M12 plug   |
| Approvals:                    | CE, cURus, ENEC10, VDE, CE  |
| Contact type:                 | 1 inverter / 1 NO+lamp / 1NC+lamp   |
| Degree of protection:         | IP65 / IP67 (on the rear IP65)  |
| Operation travel:             | 2.3 mm  |
| Connection type:              | M12 4 poles with PUR cable, A coded; length 25cm/150cm; wires 4x0.34mm <sup>2</sup> (AWG22) |
| Max. storage temperature:     | -40°C ... 80°C  |
| Max. operating temperature:   | -25°C ... 70°C  |
| Mechanical life:              | 1 million (T, TL)<br>30,000 (WA, WAL, WB, WBL, SSA)   |
| Electrical life (rated load): | 1 million (T, TL) DC13:max. 100,000 30,000 (WA, WAL, WB, WBL, SSA)                          |
| Contact resistance NO:        | < 100/300 mOhm (25/150 cm cable, AgNi contact block, new state)                             |
| Contact resistance NC:        | < 100/300 mOhm (25/150 cm cable, AgNi contact block, new state)                             |
| Bouncing time NC:             | < 10ms  |
| Positive opening contact:     | acc. to EN60947-5-1, appendix K   |

## Electrical data acc. to IEC/EN 60947-5-1 (VDE 0660 Sect. 200)

|                              | alternate current                    | direct current        |
|------------------------------|--------------------------------------|-----------------------|
| Utilisation category:        | AC15                                 | DC13                  |
| Rated insulation voltage Ui: | 250 V                                | 250 V                 |
| Rated operating voltage Ue:  | 35 V                                 | 35 V                  |
| Rated operating current Ie:  | 4 A                                  | 2 A                   |
| Continuous thermal current:  | 4 A                                  | Technical Data - Lamp |
| Lamp socket:                 | none, with integrated 3 mm LED white |                       |
| Max. lamp voltage:           | 30 V AC/DC                           |                       |
| Max. lamp output:            | 14 mA (at 24 V DC)                   |                       |
| Definition:                  | X1...anode, X2...cathode             |                       |

## Additional data

|                                   |                          |
|-----------------------------------|--------------------------|
| Mounting aperture:                | 22.3 mm                  |
| Tightening torque (mounting nut): | 1.5 ... 1.9 Nm           |
| Mounting position:                | any                      |
| Standards:                        | EN 60947-5-1, EN 61058-1 |
| Material group:                   | I                        |
| Overvoltage category:             | II                       |
| Pollution degree :                | 2                        |

## Note

O = NC contact; I= NO contact; C = inverter; L=LED

|        |   |
|--------|---|
| SN     | ...pilot light  |
| T(L)   | ...pushbutton (illuminating option)                             |
| TLR(x) | ...pushbutton with ring illumination (x=colour: W,R,Y,G,B)*2    |
| SSA12  | ...key actuator, 3 positions                                    |
| SSA15  | ...key actuator, 2 positions                                    |
| WA(L)  | ...selector head, 2 positions, maintained (illuminating option) |
| WB(L)  | ...selector head, 3 positions, maintained (illuminating option) |

## Actuators

- out of the Shortron series
- silver-coloured front bezel
- potted on the rear

## Connecting cable

- cable dia.: 4.7 mm
- PUR cable with straight M12 connector, black
- length 25±3cm / 150±5cm
- integrated strain relief
- bending radius (moving): 10 x cable diameter
- bending radius (static): 5 x cable diameter

## Attention:

The common changeover contact (COM-Pin1) may be charged with 4A max.

Complimentary Data acc. to IEC/EN 60947-5-1, applicable to the types: S(T)(WA)(WB)(SSA...)(I)(O)(OI)\_M(01)(02)

|            |                        |
|------------|------------------------|
| AC15 B300: | 240V 1.5A / 120V 3A    |
| DC13 Q300: | 250V 0.27A / 125 0.55A |

| Type     | Type                | Cable Length | Pin Assignment  |
|----------|---------------------|--------------|---|
| SN_M09   | pilot light         | 25cm         | Pin1: NC, Pin2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| SN_M10   | pilot light         | 150cm        | Pin1: NC, Pin2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STOI_M01 | Pushbutton 1W       | 25cm         | Pin1: COM, Pin2: NC, Pin3: NC Pin4: NO                |
| STOI_M02 | Pushbutton 1W       | 150cm        | Pin1: COM, Pin2: NC, Pin3: NC Pin4: NO                |
| STLI_M03 | Illumin. pushbutton | 25cm         | Pin1-2: NO, Pin3: X2(LED-), Pin4: X1(LED+24V)         |

|               |                          |       |   |
|---------------|--------------------------|-------|---|
| STLI_M04      | Illumin. pushbutton      | 150cm | Pin1-2: NO, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STLO_M05      | Illumin. pushbutton      | 25cm  | Pin1-2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STLO_M06      | Illumin. pushbutton      | 150cm | Pin1-2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STLR(x)OI_M01 | Pushbutton*2 1W          | 25cm  | Pin1: COM, Pin2: NC, Pin3: NC Pin4: NO        |
| STLR(x)OI_M02 | Pushbutton*2 1W          | 150cm | Pin1: COM, Pin2: NC, Pin3: NC Pin4: NO        |
| STLR(x)I_M03  | Pushbutton*2 1NO         | 25cm  | Pin1-2: NO, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STLR(x)I_M04  | Pushbutton*2 1NO         | 150cm | Pin1-2: NO, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STLR(x)O_M05  | Pushbutton*2 1NC         | 25cm  | Pin1-2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| STLR(x)O_M06  | Pushbutton*2 1NC         | 150cm | Pin1-2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| SWAOI_M01     | 2pos.selector switch 1W  | 25cm  | Pin1: COM, Pin2: NC, Pin3: NC Pin4: NO        |
| SWAOI_M02     | 2pos.selector switch 1W  | 150cm | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SWBOI_M01     | 3pos.selector switch 1W  | 25cm  | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SWBOI_M02     | 3pos.selector switch 1W  | 150cm | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SWBII_M07     | 3pos.selector switch 2NO | 25cm  | Pin1: COM, Pin 2: NO1, Pin3: NC, Pin4: NO2    |
| SWBII_M08     | 3pos.selector switch 2NO | 150cm | Pin1: COM, Pin 2: NO1, Pin3: NC, Pin4: NO2    |
| SWALI_M03     | Illumin.selector switch  | 25cm  | Pin1-2: NO, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| SWALI_M04     | Illumin.selector switch  | 150cm | Pin1-2: NO, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| SWALO_M05     | Illumin.selector switch  | 25cm  | Pin1-2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| SWALO_M06     | Illumin.selector switch  | 150cm | Pin1-2: NC, Pin3: X2(LED-), Pin4: X1(LED+24V) |
| SSSA15OI_M01  | 2pos.key switch 1W       | 25cm  | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SSSA15OI_M02  | 2pos.key switch 1W       | 150cm | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SSSA12OI_M01  | 3pos.key switch 1W       | 25cm  | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SSSA12OI_M02  | 3pos.key switch 1W       | 150cm | Pin1: COM, Pin2: NC, Pin3: NC, Pin4: NO       |
| SSSA12II_M07  | 3pos.key switch 2NO      | 25cm  | Pin1: COM, Pin2: NO1, Pin3: NC, Pin4: NO2     |
| SSSA12II_M08  | 3pos.key switch 2NO      | 150cm | Pin1: COM, Pin2: NO1, Pin3: NC, Pin4: NO2     |

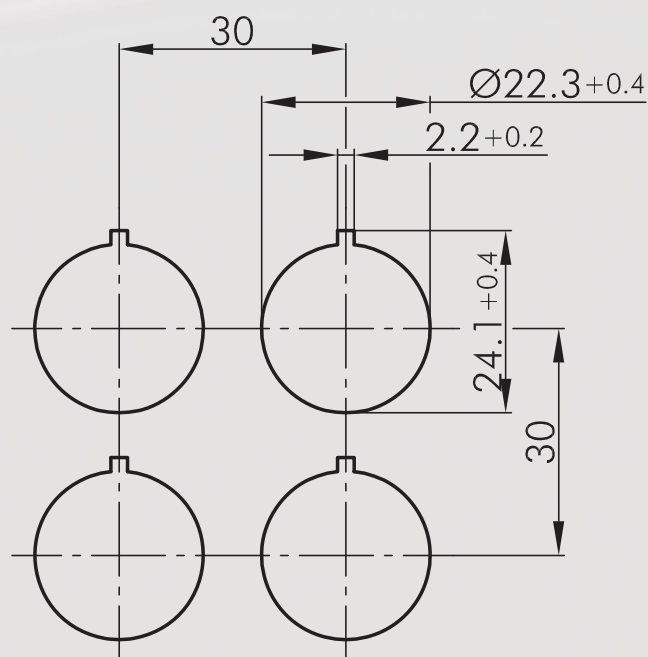
\*2 with ring illumination

Data acc. to UL508

Ratings:

24VDC 2A General Purpose

## Cutout dimensions



degree of protection



operating travel



tactile



illuminating option



labelling option



# SHORTRON®-M12

Ø 22.3 mm

MADE IN GERMANY



About Us

## Pushbuttons

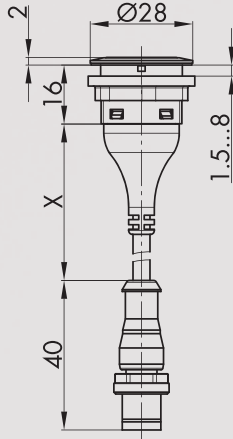
lenses and nameplates to be ordered separately

Illustration

Dimensions

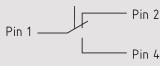
IP65  
IP67

2.3mm



### Pushbutton

Connection type: M12 4 poles



PIN 1/PIN 2

PIN 1/PIN 4

PIN 3 n.c.

0 1 2

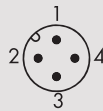


front bezel:  
cable length (X)  
cable length (X)

silver-coloured  
250±30 mm  
1500 ±50 mm

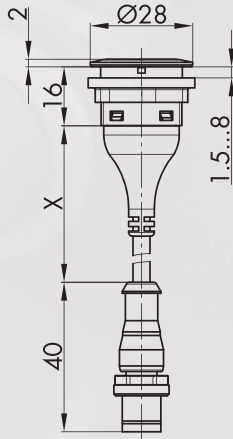


STOI\_M01  
STOI\_M02



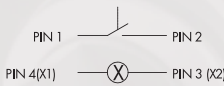
IP65  
IP67

2.3mm



### Illuminated pushbutton NO

incl. white LED  
Connection type: M12 4 poles



PIN 1/PIN 2

0 1 2

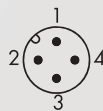


front bezel:  
cable length (X)  
cable length (X)

silver-coloured  
250±30 mm  
1500 ±50 mm



STLI\_M03  
STLI\_M04



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Pushbuttons  
and Switches

## Pushbuttons

lenses and nameplates to be ordered separately

Illustration

Dimensions

IP65  
IP67

2,3mm

### Illuminated pushbutton NC

Connection type: M12 4 poles

PIN 1  
 PIN 2  
 PIN 4(X1)  
 PIN 3 (X2)

PIN 1/PIN 2

0 1 2

|                  |                 |  |                 |
|------------------|-----------------|--|-----------------|
| front bezel:     | silver-coloured |  |                 |
| cable length (X) | 250±30 mm       |  | <b>STLO_M05</b> |
| cable length (X) | 1500 ±50 mm     |  | <b>STLO_M06</b> |

## Accessories

### Flat lens, transparent

|         |            |  |                |
|---------|------------|--|----------------|
| colour: | blue       |  | <b>T22RRBL</b> |
|         | yellow     |  | <b>T22RRGB</b> |
|         | green      |  | <b>T22RRGN</b> |
|         | clear      |  | <b>T22RRKL</b> |
|         | red        |  | <b>T22RRRT</b> |
|         | opal white |  | <b>T22RRWS</b> |

### High lens, transparent

|         |            |  |                 |
|---------|------------|--|-----------------|
| colour: | blue       |  | <b>T22HRRBL</b> |
|         | yellow     |  | <b>T22HRRGB</b> |
|         | green      |  | <b>T22HRRGN</b> |
|         | clear      |  | <b>T22HRRKL</b> |
|         | red        |  | <b>T22HRRRT</b> |
|         | opal white |  | <b>T22HRRWS</b> |

### Flat lens, non-transparent

for pushbuttons without inscription and illumination

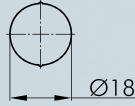
|         |        |  |                 |
|---------|--------|--|-----------------|
| colour: | blue   |  | <b>T22RRGBL</b> |
|         | yellow |  | <b>T22RRGGB</b> |
|         | green  |  | <b>T22RRGGN</b> |
|         | black  |  | <b>T22RRGSW</b> |
|         | red    |  | <b>T22RRGRT</b> |
|         | white  |  | <b>T22RRGWS</b> |

## Selector Switches (momentary/maintained)

| = Switching position  
> = Spring return

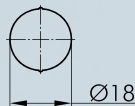
Illustration

Dimensions



**Blank nameplate**

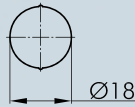
**BSRRU**



**Nameplate with standard imprint**

**BSRR...**

please specify index number (see nameplates from page 634)



**Nameplate with special imprint**

**BSRRB**

according to customer's specification

IP67

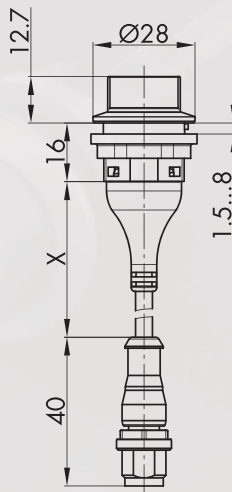


**Sealing cap**

**TK28S**

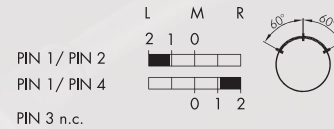
made of silicone rubber, down to -50°C

IP65



### Selector switch, maintained

Connection type: M12 4 poles



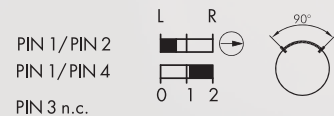
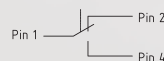
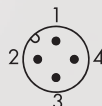
front bezel: silver-coloured  
cable length (X) 250±30 mm  
cable length (X) 1500 ±50 mm

**SWBII\_M07**  
**SWBII\_M08**



front bezel: silver-coloured  
cable length (X) 250±30 mm  
cable length (X) 1500 ±50 mm

**SWBOI\_M01**  
**SWBOI\_M02**



front bezel: silver-coloured  
cable length (X) 250±30 mm  
cable length (X) 1500 ±50 mm

**SWAOI\_M01**  
**SWAOI\_M02**


**Selector Switches** (momentary/maintained)


Illustration

Dimensions

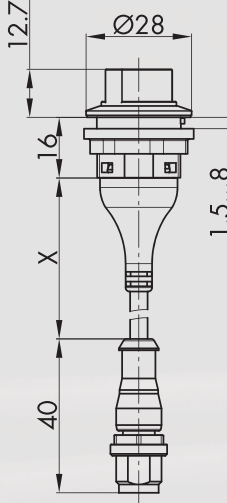
IP65

22.3mm







**Selector switch, maintained**  
incl. white LED  
Connection type: M12 4 poles



PIN 1 ——— PIN 2  
PIN 4(X1) ——— PIN 3 (X2)

PIN 1/PIN 2

0 1 2

front bezel: silver-coloured

cable length (X) 250±30 mm



cable length (X) 1500 ±50 mm

**SWALI\_M03**  
**SWALI\_M04**

PIN 1 ——— PIN 2  
PIN 4(X1) ——— PIN 3 (X2)

PIN 1/PIN 2

0 1 2





front bezel: silver-coloured

cable length (X) 250±30 mm

cable length (X) 1500 ±50 mm

**SWALO\_M05**  
**SWALO\_M06**





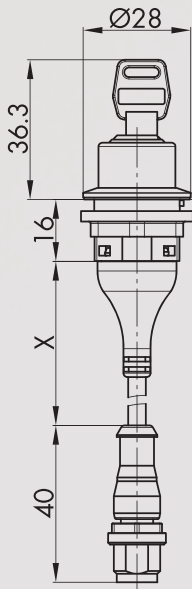
**Key Switches** (momentary/maintained)

I = Switching position  
> = Spring return  
O = Key removable position

Illustration

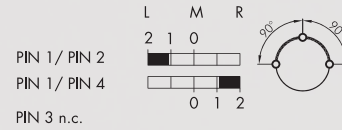
Dimensions

IP65



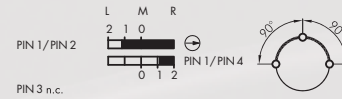
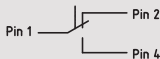
**Key-operated switch, maintained**

including two keys  
other lock types on request  
Connection type: M12 4 poles



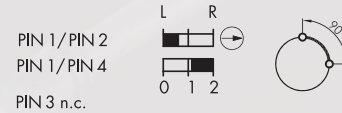
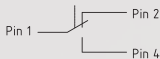
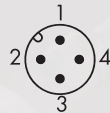
front bezel: silver-coloured  
cable length (X) 250±30 mm  
cable length (X) 1500 ±50 mm

**SSSA12II\_M07**  
**SSSA12II\_M08**



front bezel: silver-coloured  
cable length (X) 250±30 mm  
cable length (X) 1500 ±50 mm

**SSSA120I\_M01**  
**SSSA120I\_M02**



front bezel: silver-coloured  
cable length (X) 250±30 mm  
cable length (X) 1500 ±50 mm

**SSSA150I\_M01**  
**SSSA150I\_M02**

**Accessories**



**Mounting tool 22**

**S22**

with torque limitation  
for the series QUARTEX-R(-JUWEL), KOMBITAST-R-JUWEL,  
RONDEX, RONDEX-M, RONDEX-JUWEL, RVA, DUX-Basic,  
SHORTRON, jacks of the ranges RONTRON-R/-QJUWEL



**Mounting tool adapter with 1/4" connections**

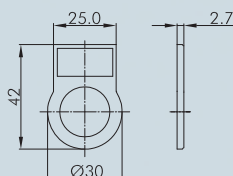
**SRA**

for mounting tools S16 and S22

## Accessories for Pushbuttons and Switches

Illustration

Dimensions



### External nameplate holder

for self-adhesive outside marking of the actuators of the RONTRON-RJUWEL, SHORTRON series (except selector and key switches) to snap on from the front

colour: transparent



RRJABT

### Self-adhesive nameplate laser-printed

BZ16L...

inscription according to customer's specification  
dimensions: 22 x 11 mm



### Self-adhesive nameplate blank

BZ16U

dimensions: 22 x 11 mm



### Self-adhesive nameplate with standard imprint

BZ16B...

please specify index number (see nameplates from page 634)  
dimensions: 22 x 11 mm



### Yellow nameplate

self-adhesive PVC foil  
printing on request  
outer dia. 75 mm  
for mounting dia. 22.3 mm

colour: yellow



NAS\_22



### Yellow nameplate with quadrilingual imprint

self-adhesive PVC foil  
outer dia. 75 mm  
for mounting dia. 22.3 mm

colour: yellow



NAS\_22\_548



### Universal lens remover

USK