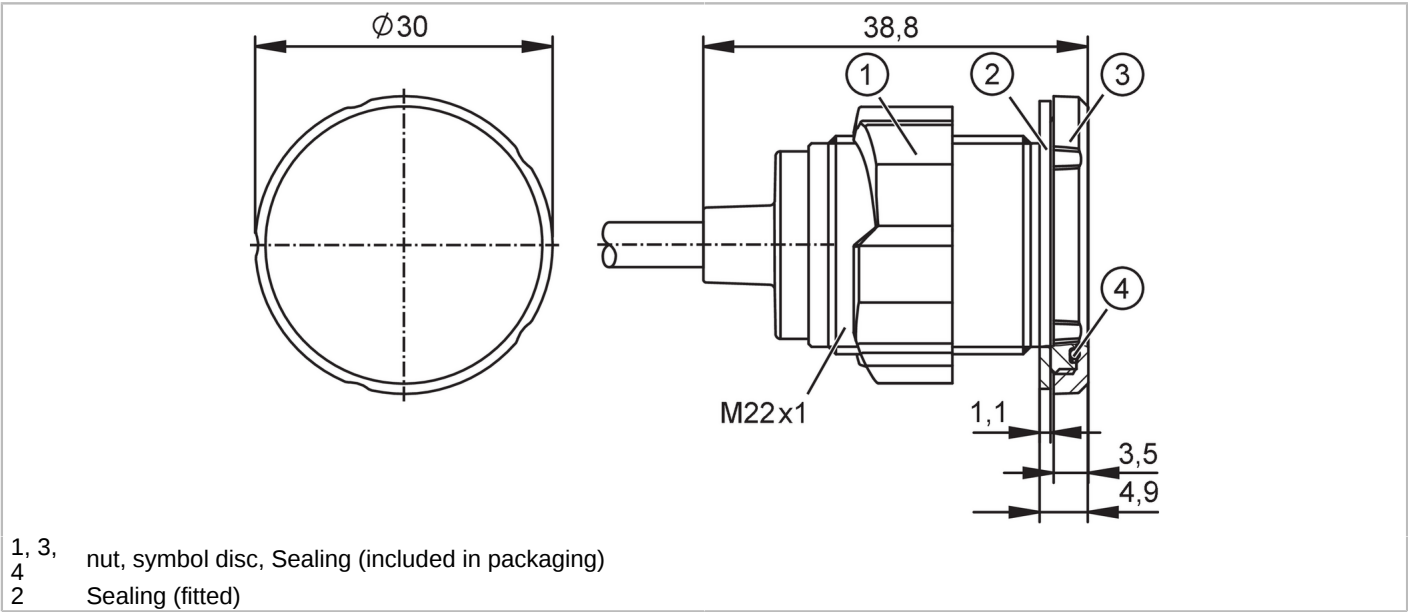




Capacitive touch sensor

KTEEFOKMMFRKG/2M/IO



- 1, 3, nut, symbol disc, Sealing (included in packaging)  
4  
2 Sealing (fitted)



| Product characteristics     |      |                                                    |
|-----------------------------|------|----------------------------------------------------|
| Electrical design           |      | PNP/NPN; (parameterisable)                         |
| Output function             |      | normally open / normally closed; (parameterisable) |
| Communication interface     |      | IO-Link                                            |
| Housing                     |      | threaded type                                      |
| Dimensions                  | [mm] | M22 x 1 / L = 38.8                                 |
| Application                 |      |                                                    |
| Operating principle         |      | static; (Factory setting, parameterisable)         |
| UV resistant                |      | yes                                                |
| Electrical data             |      |                                                    |
| Operating voltage           | [V]  | 8...32 DC                                          |
| Protection class            |      | III                                                |
| Reverse polarity protection |      | yes                                                |
| Current consumption         |      | < 7,2 mA; (LED off: Ub = 24 V)                     |
|                             |      | < 125 mA; (LED white, max. brightness: Ub = 8 V)   |
|                             |      | < 79 mA; (LED white, max. brightness: Ub = 12 V)   |
|                             |      | < 43 mA; (LED white, max. brightness: Ub = 24 V)   |
|                             |      | < 35 mA; (LED white, max. brightness : Ub = 32 V)  |
| Inputs                      |      |                                                    |
| Total number of inputs      |      | 2                                                  |
| Switching level high        | [V]  | > 19.2; (at 24 V safely on : Voltage >= Ub*0,8)    |
| Switching level low         | [V]  | < 4.8; (at 24V safely off : Voltage <= Ub*0,2)     |
| Inputs                      |      | according to the standard IEC 61131-2 (Typ 3)      |
| Outputs                     |      |                                                    |
| Electrical design           |      | PNP/NPN; (parameterisable)                         |
| Output function             |      | normally open / normally closed; (parameterisable) |



## Capacitive touch sensor

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|                                                 |      |     |
|-------------------------------------------------|------|-----|
| Max. voltage drop switching output DC           | [V]  | 1.5 |
| Permanent current rating of switching output DC | [mA] | 200 |
| Short-circuit protection                        |      | yes |
| Overload protection                             |      | yes |

## Response times

|               |      |    |
|---------------|------|----|
| Response time | [ms] | 64 |
|---------------|------|----|

## Software / programming

|                           |                                                                                                                                                                 |  |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Parameter setting options | normally open / normally closed; PNP/NPN; static; dynamic; bistable; combination; Switch-on and switch-off delay; brightness; sensitivity; Operating conditions |  |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|--|

## Interfaces

|                         |                          |                              |
|-------------------------|--------------------------|------------------------------|
| Communication interface | IO-Link                  |                              |
| Transmission type       | COM2 (38,4 kBaud)        |                              |
| IO-Link revision        | 1.1.3                    |                              |
| Profiles                | Smart Sensor - SSP 1.1   | Fixed Switching Sensor       |
|                         | Common - I&D             | Identification and Diagnosis |
|                         | Extension                | Sensor Control Wide          |
|                         | Function                 | Locator                      |
|                         | Function                 | ProductURI                   |
| Min. process cycle time | [ms]                     | 13.2                         |
| Supported DeviceIDs     | <b>Type of operation</b> | <b>DeviceID</b>              |
|                         | default                  | 1917                         |

## Operating conditions

|                     |                                     |          |
|---------------------|-------------------------------------|----------|
| Ambient temperature | [°C]                                | -30...65 |
| Protection          | IP 65; IP 67; (IP 69K on the front) |          |

## Tests / approvals

|                             |                           |                                                                                   |
|-----------------------------|---------------------------|-----------------------------------------------------------------------------------|
| EMC                         | EN 61000-4-2 ESD          | 4 kV CD / 8 kV AD                                                                 |
|                             | EN 61000-4-3 HF radiated  | 10 V/m / 3 V/m                                                                    |
|                             | EN 61000-4-4 Burst        | 2 kV                                                                              |
|                             | EN 61000-4-6 HF conducted | 10 V                                                                              |
|                             | IEC 61000-6-3, EN 55011   | (Class B)                                                                         |
|                             | IEC 61000-4-5 Surge       | 1 kV (L+ to L- , 42 Ω, 0,5 μF) / 0,5 kV (all cables to L- , 42 Ω, 0,5 μF)         |
| Vibration resistance        | EN 60068-2-6 Fc           | 20 g (10...3000 Hz) / 50 sweep cycles, 1 octave per minute, in 3 axes             |
| Shock resistance            | EN 60068-2-27 Ea          | 50 g 11 ms half-sine; 20 shocks each in every direction of the 3 coordinate axes  |
| Continuous shock resistance | EN 60068-2-29 Eb          | 40 g 6 ms half-sine; 8000 shocks each in every direction of the 3 coordinate axes |

## Mechanical data

|                    |                                                            |                    |
|--------------------|------------------------------------------------------------|--------------------|
| Weight             | [g]                                                        | 108                |
| Housing            | threaded type                                              |                    |
| Dimensions         | [mm]                                                       | M22 x 1 / L = 38.8 |
| Thread designation | M22 x 1                                                    |                    |
| Materials          | housing: PA; lock nut: PBT; symbol disc: PA; Flat seal: NR |                    |

KTE110



Capacitive touch sensor

KTEEFOKMMFRKG/2M/IO

Displays / operating elements

|         |                  |            |
|---------|------------------|------------|
| Display | switching status | LED, red   |
|         | input signal     | LED, green |

Accessories

|                        |                            |
|------------------------|----------------------------|
| Items supplied         | lock nuts: 1 x M22         |
|                        | transparent symbol disc: 1 |
|                        | symbol sticker: 1          |
|                        | Flat seal: 1               |
|                        | O-ring: 1                  |
| Accessories (optional) | symbol disc                |

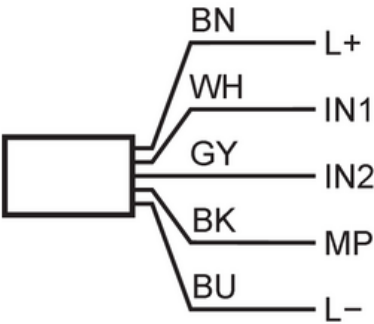
Remarks

|               |        |
|---------------|--------|
| Pack quantity | 1 pcs. |
|---------------|--------|

Electrical connection

Cable: 2 m, PUR, Ø 4.9 mm; 5 x 0.34 mm²

Connection



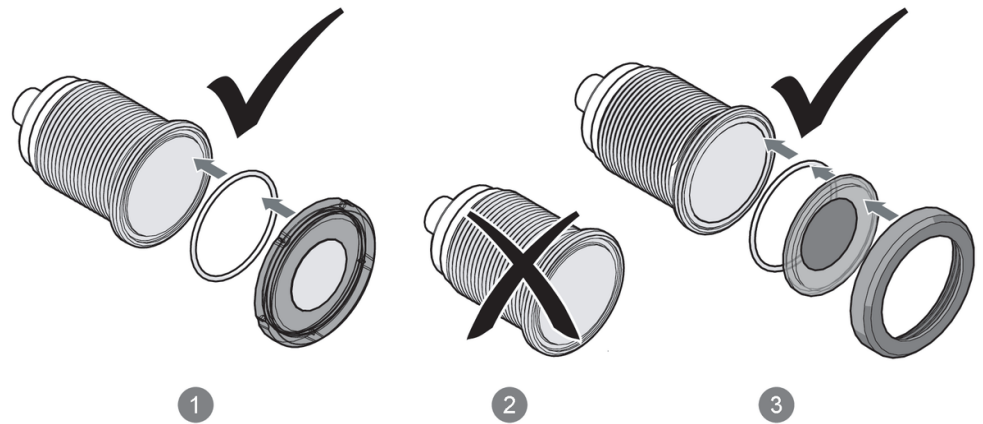
|      |       |
|------|-------|
| BN : | brown |
| WH : | white |
| GY : | grey  |
| BK:  | black |
| BU:  | blue  |

|    |     |                     |
|----|-----|---------------------|
| BN | L+  |                     |
| WH | IN1 |                     |
| GY | IN2 |                     |
| BK | MP  | DO (NO/NC), IO-Link |
| BU | L-  |                     |

MP: multifunctional input; DO: digital output; NO: normally open; NC: normally closed

### Diagrams and graphs

application note relevant for the function



function  
only  
ensured  
with  
symbol  
disc  
(can  
be  
ordered  
separately)

1. function ensured with plastic disc
2. function not ensured without disc
3. function ensured with stainless steel disc