

## KN300400

### Capacitive sensors • Norm switching distance

Sensor capacitive, M30x1.5 70long, non-flush, Sn: 1-30, 10-35V diagnostic coverage, 2x PNP exclusive-OR, cable tail 2m PVC, IP67, nickel-plated (n-pltd) brass, LED, manual setting

including 2x Nut, 1x Screwdriver



Capacitive proximity switches are contact-free sensors. They detect metallic and non-metallic objects, regardless of whether they move or not. The achievable sensing range of the devices depends on the object material, its dimensions and the response sensitivity, which is set via a potentiometer. The vibration-resistant sensors can be approached laterally or frontally. Capacitive proximity switches are used for presence detection (e.g. sealing detection), positioning (e.g. PET bottles), counting (e.g. plastic caps), level detection (e.g. lubricant) or distance measurements (e.g. thickness measurement) of solid and liquid materials.

#### Electrical features

|                               |                 |
|-------------------------------|-----------------|
| Number of switching outputs   | 2               |
| Display                       | LED display     |
| Type of switching function    | Exclusive-OR    |
| Type of electrical connection | Cable           |
| Type of switching output      | PNP             |
| Rated switching current       | 250mA           |
| Setting procedure             | Potentiometer   |
| Relative hysteresis           | 15%             |
| Correction factor (glass)     | 0.6             |
| Correction factor (wood)      | 0.6             |
| Correction factor (PVC)       | 0.5             |
| Correction factor (oil)       | 0.5             |
| Short-circuit protection      | Yes             |
| No-load current               | 15mA            |
| Switching distance            | 1 - 30mm        |
| Switching frequency           | 50Hz            |
| Voltage drop                  | 2V              |
| Reverse polarity protection   | Yes             |
| Operating voltage (DC)        | 10 - 35V        |
| Output functions              | Switching point |

## Mechanical features

|  |                        |
|--|------------------------|
| Number of cores                          | 4                      |
| Design                                   | Cylinder, screw-thread |
| Thread length                            | 40mm                   |
| Thread pitch                             | 1.5mm                  |
| Cable length                             | 2m                     |
| Length                                   | 70mm                   |
| Mechanical mounting condition for sensor | non-flush              |
| Surface                                  | nickel-plated          |
| Degree of protection (IP)                | IP67                   |
| Active area material of sensor           | Plastic (PTFE)         |
| Housing material                         | Brass                  |
| Material of cable sheath                 | Plastic (PVC)          |
| Thread dimension                         | M30                    |
| Ambient temperature                      | -25 - 70°C             |

## Other features

|                           |   |
|---------------------------|---|
| Important note            | Das Potentiometer befindet sich hinter der Abdeckung. |
| Level detection           | Yes   |
| Reference medium / object | Material with permittivity $\epsilon_r=81$            |
| Ambient temperature       | -25 - 70°C  |

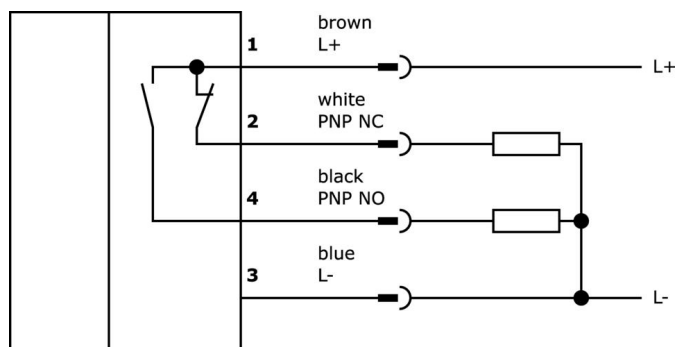
## Classification

|        |                                      |
|--------|--------------------------------------|
| ETIM 8 | EC002715 Capacitive proximity switch |
|--------|--------------------------------------|

## More

|                       |                                  |
|-----------------------|----------------------------------|
| IPF Product Group     | 243 capacitive sensors (diverse) |
| packaging dimensions  | 149 x 124 x 35 mm                |
| gross weight          | 290 g                            |
| Customs tariff number | 85365019                         |
| WEEE number           | 40951076                         |
| Reach-compliant       | Yes                              |
| RoHS-compliant        | Yes                              |

## Connection



#### Installation



Mounting / installation may only be carried out by a qualified electrician!

#### Disposal



#### Safety warnings

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information.

Never use these devices in applications where the safety of a person depends on their functionality.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).

#### Dimensional drawing

