**IPF** ELECTRONIC

Data sheet **KN304107** • Subject to alteration! Version: 02.12.2019

## KN304107
## CAPACITIVE SENSORS • NORM SWITCHING DISTANCE

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.

### MECHANICAL FEATURES

| | |
|---|---|
| Active area material of sensor | PA 6.6 (synthetic) |
| Ambient temperature | -25 °C ... 70 °C |
| Cable length | 2 m |
| Degree of protection (IP) | IP67 |
| Housing design | Cylinder, screw-thread |
| Housing material | PBT |
| Material of cable sheath | PVC |
| Mechanical mounting condition for sensor | Non-flush |
| Number of cores | 2 |
| Pressure-proof | - |
| Sensor length | 81 mm |
| Thread length | 40 mm |
| Thread pitch | 1.5 mm |
| Thread size, metric | 30 |

### ELECTRICAL FEATURES

| | |
|---|---|
| Cascadable | - |
| Correction factor (glass) | 0.6 |
| Correction factor (oil) | 0.5 |
| Correction factor (PVC) | 0.5 |
| Correction factor (wood) | 0.6 |
| Hysteresis | 15 % |
| Max. output current | 300 mA |
| Min. output current | 5 mA |
| No-load current | 15 mA |
| Rated control supply voltage Us at AC 50HZ | 20 V ... 250 V |
| Setting procedure | Manual adjustment |
| Suitable for safety functions | - |
| Supply voltage | 20 V ... 250 V |
| Switching distance | 20 mm |
| Switching distance | 5 mm ... 20 mm |
| Switching frequency | 15 Hz |
| Type of electrical connection | Cable |

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## ELECTRICAL FEATURES

| | |
|---|---|
| Type of switching function | Normally open contact |
| Type of switching output | Two-wire |
| Voltage drop | 10 V |
| Voltage type | AC |
| With LED display | + |
| With monitoring function of downstream devices | - |

## OTHER FEATURES

| | |
|---|---|
| Level detection | + |

### Other

| | |
|---|---|
| Packaging dimensions | 76.0mm x 50mm x 121.0mm |
| Shipping weight | 0.18kg |
| Tariff code | 85365080 |

### Classification

| | |
|---|---|
| ipf product group | 243 |
| eClass 8.0 | 27270102 |
| eClass 9.0 | 27270102 |
| eClass 9.1 | 27270102 |
| ETIM-5.0 | EC002715 |
| ETIM-6.0 | EC002715 |
| ETIM-7.0 | EC002715 |

**Connection**



**Dimensional drawing**
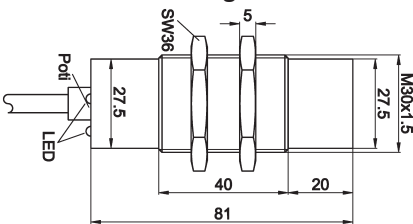


**Installation**

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

**Disposal**

**Software**
**Please download the software or driver required for operating your new device on our homepage: www.ipf.de**

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## 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.
LED lighting systems can generate intensive UV radiation, which can damage your eyes in case of improper use. The manufacturer cannot be held responsible for damages that result from improper use or connection.

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