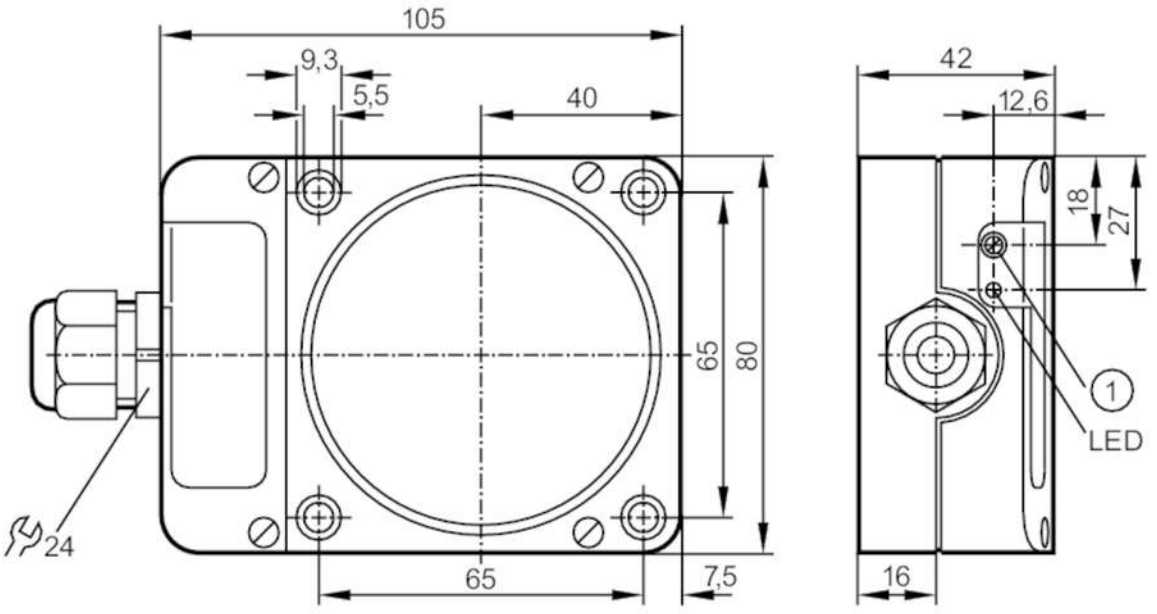
# KD001A

## Capacitive sensor

KDE2060-FBOA/NI/3D




1 potentiometer

| | | |
|---|---|---|
| **Product characteristics** | | |
| Output function | | normally open / normally closed; (selectable) |
| Sensing range | [mm] | 60 |
| Housing | | rectangular |
| Dimensions | [mm] | 105 x 80 x 42 |
| **Electrical data** | | |
| Operating voltage | [V] | 20...250 AC/DC |
| Protection class | | II |
| Reverse polarity protection | | no |
| Measuring principle | | capacitive |
| **Outputs** | | |
| Output function | | normally open / normally closed; (selectable) |
| Max. voltage drop switching output DC | [V] | 8 |
| Max. voltage drop switching output AC | [V] | 10 |
| Minimum load current | [mA] | 5 |
| Max. leakage current | [mA] | 2.5 (250 V AC) / 1.7 (110 V AC) / 1.3 (24 V DC) |
| Permanent current rating of switching output AC | [mA] | 130; (250 (...40 °C)) |
| Permanent current rating of switching output DC | [mA] | 130; (250 (...40 °C)) |
| Short-time current rating of switching output | [mA] | 1500; (20 ms / 0,5 Hz) |
| Switching frequency AC | [Hz] | 4 |
| Switching frequency DC | [Hz] | 4 |

# KD001A

## Capacitive sensor

KDE2060-FBOA/NI/3D

| | | |
|---|---|---|
| Notes on switching frequency [Hz] | only for resistive loads; 2 Hz for utilisation category AC-140 | |
| Short-circuit proof | no | |
| Overload protection | no | |
| **Detection zone** | | |
| Sensing range [mm] | 60 | |
| Sensing range adjustable | yes | |
| Factory setting sensing range [mm] | 60 | |
| Real sensing range Sr [mm] | 60 ± 10 % | |
| **Accuracy / deviations** | | |
| Correction factor | glass: 0.4 / water: 1 / ceramics: 0.2 / PVC: 0.2 | |
| Hysteresis [% of Sr] | 1...15 | |
| Switch point drift [% of Sr] | -15...15 | |
| **Operating conditions** | | |
| Ambient temperature [°C] | -20...60 | |
| Protection | IP 65 | |
| Increased immunity | yes | |
| **Tests / approvals** | | |
| ATEX marking | II 3D Ex tc IIIC T90°C Dc X IP65 | |
| EMC | EN 60947-5-2 | |
| MTTF [years] | 270 | |
| **Mechanical data** | | |
| Weight [g] | 281.5 | |
| Housing | rectangular | |
| Mounting | non-flush mountable | |
| Dimensions [mm] | 105 x 80 x 42 | |
| Materials | PPE modified; PA | |
| Tightening torque [Nm] | housing screws: 0,9 Nm; screws: 4 Nm | |
| **Displays / operating elements** | | |
| Display | switching status | 1 x LED, yellow |
| **Electrical connection** | | |
| Required protection | miniature fuse to IEC60127-2 sheet 1; ≤ 2 A; fast acting; Place the fuse outside the hazardous area. | |
| **Remarks** | | |
| Remarks | Recommendation: Check the safe functioning of the unit after a short circuit. | |
| Pack quantity | 1 pcs. | |

# KD001A

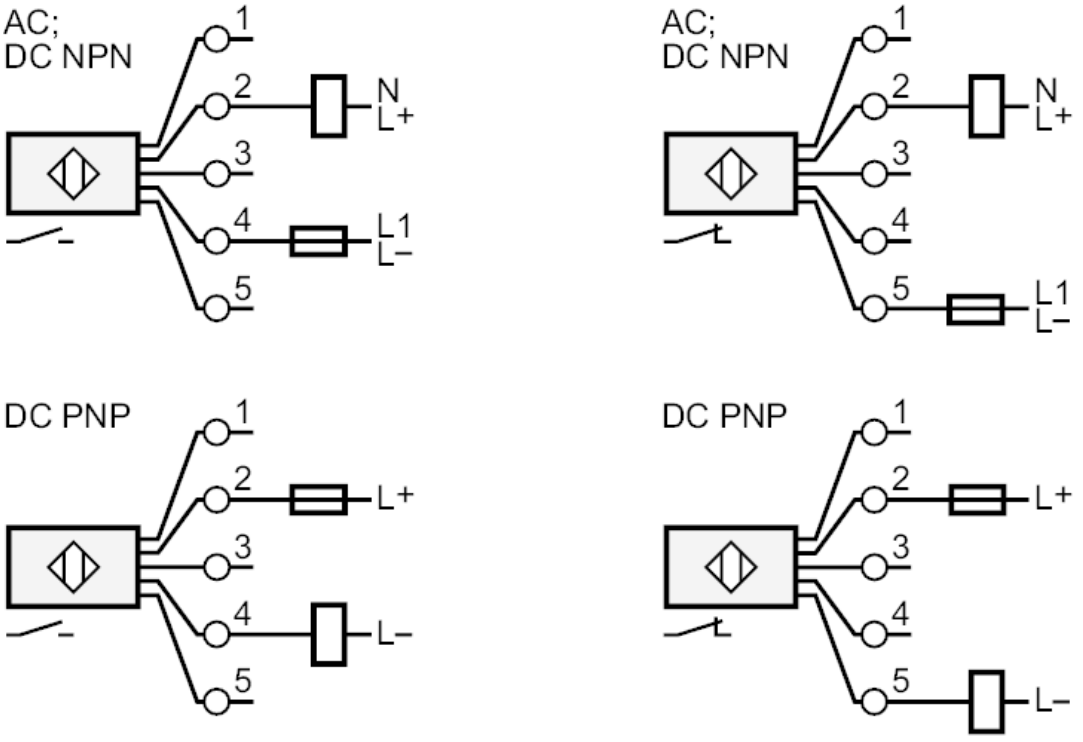
## Capacitive sensor

KDE2060-FBOA/NI/3D

## Electrical connection

terminals: 0.34...2.5 mm²; Cable sheath: Ø 5...9 mm; Cable gland: M20 X 1.5

### Connection




Note miniature fuse to IEC60127-2 sheet 1 ≤ 2 A fast acting
Place the fuse outside the hazardous area.