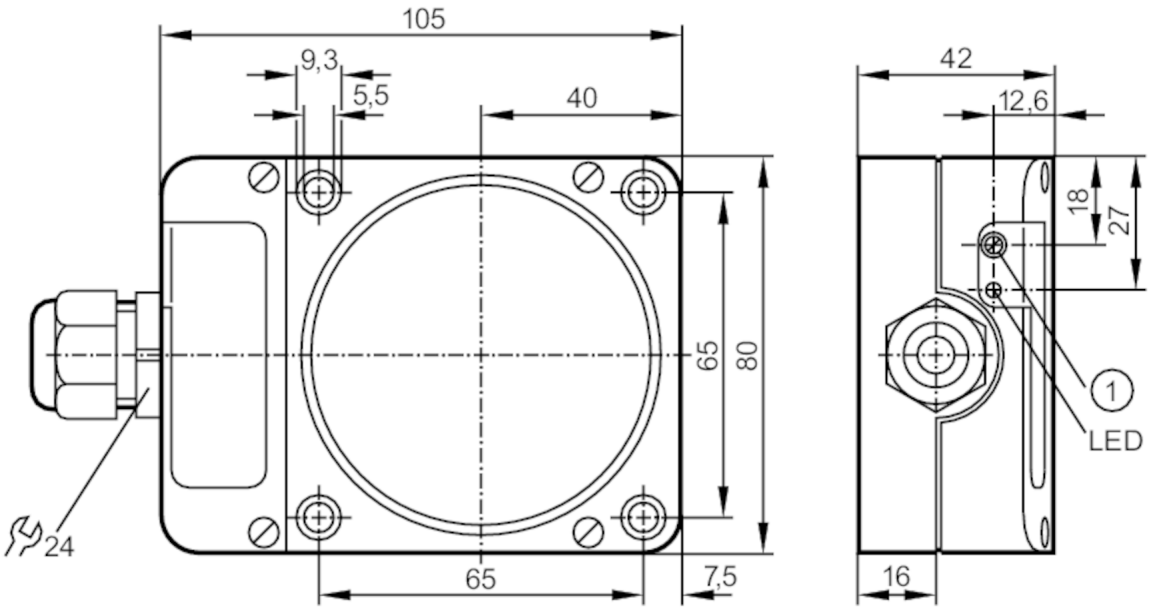
KD001A

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

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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.	

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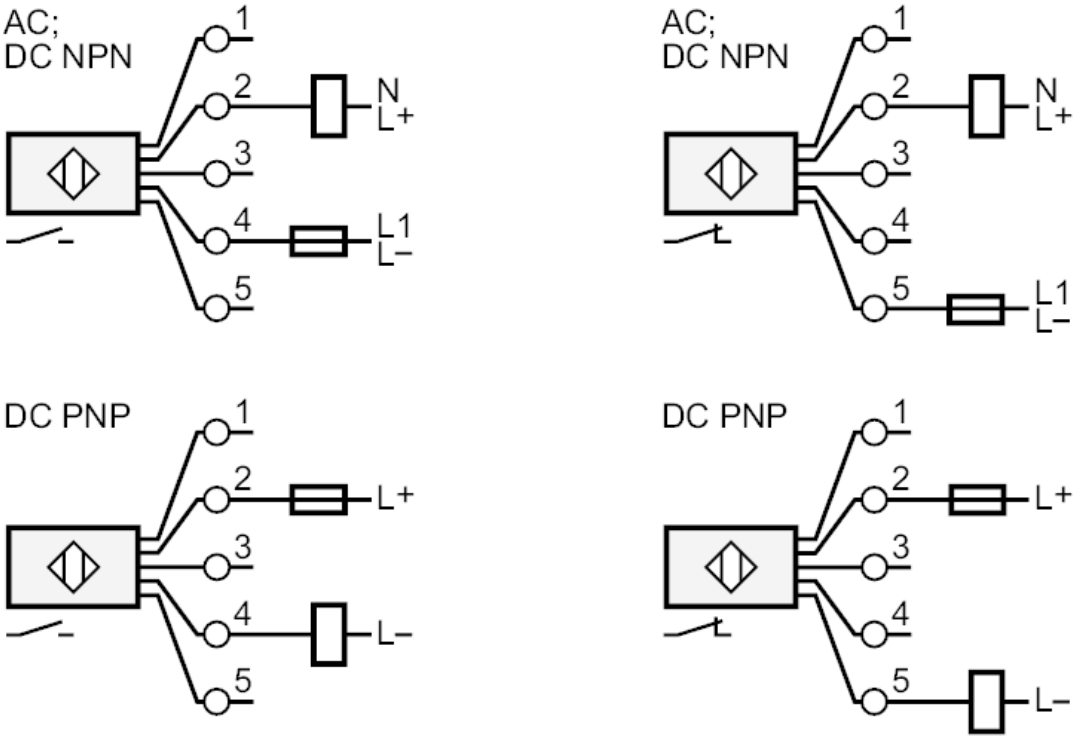
Electrical connection

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.