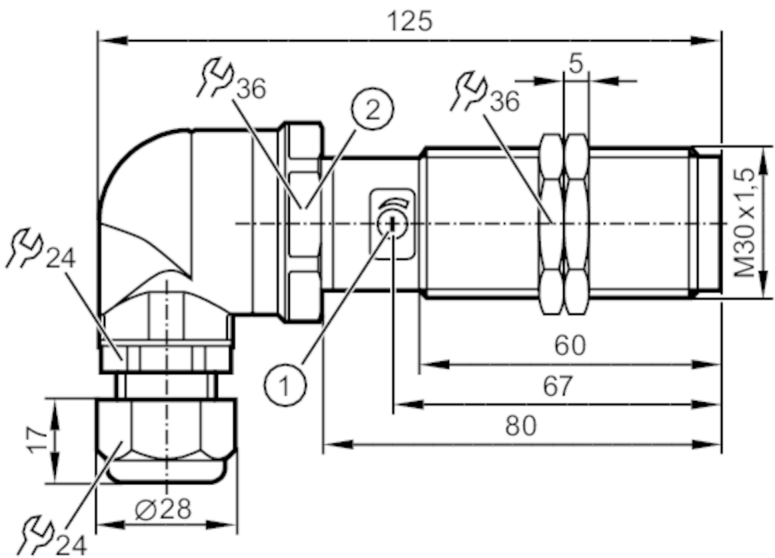


KI531A



Capacitive sensor

KIE4150NCPKG/IO/3D



- 1 potentiometer
2 Tightening torque 10 Nm



Product characteristics

Electrical design	PNP
Output function	complementary
Sensing range [mm]	3...26
Communication interface	IO-Link
Housing	threaded type
Dimensions [mm]	M30 x 1.5 / L = 125

Electrical data

Operating voltage [V]	10...30 DC
Rated insulation voltage [V]	60
Current consumption [mA]	< 22
Protection class	III
Reverse polarity protection	yes
Max. power-on delay time [ms]	300
Measuring principle	capacitive

Outputs

Electrical design	PNP
Output function	complementary
Max. voltage drop switching output DC [V]	2.5
Max. leakage current [mA]	0.1
Permanent current rating of switching output DC [mA]	200
Short-time current rating of switching output [mA]	200
Switching frequency DC [Hz]	10

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Short-circuit protection		yes
Type of short-circuit protection		pulsed
Overload protection		yes
Detection zone		
Sensing range	[mm]	3...26
Sensing range adjustable		yes
Real sensing range Sr	[mm]	15 ± 10 %
Accuracy / deviations		
Hysteresis	[% of Sr]	1...15
Switch point drift	[% of Sr]	-20...20
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SDCI standard		IEC 61131-9
Profiles		Smart Sensor: Process Data Variable; Device Identification
SIO mode		yes
Required master port type		A
Min. process cycle time	[ms]	20
IO-Link functions (acyclical)		application specific tag; operating hours counter; PNP / NPN (parametrierbar); switch point setting; Hysteresis
Operating conditions		
Ambient temperature	[°C]	-20...60
Protection		IP 65; IP 67
Tests / approvals		
ATEX marking		 II 3D Ex tc IIIC T90°C Dc
		 BVS 20 ATEX E 058 X; IECEx BVS 20.0061X
EMC	EN 61000-4-2 ESD	kV / 8 kV AD
	EN 61000-4-3 HF radiated	3 V/m (80...2000 MHz)
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	3 V 0,15...80 MHz
	EN 55011	class B
	IEC 60255-5	1 kV line to line, Ri: 500 Ohm
Vibration resistance	EN 60068-2-6 Fc	10...55 Hz 1 mm amplitude, oscillation period 5 min., 30 min. per axis at resonance or 55 Hz
Shock resistance	EN 60068-2-27 Ea	30 g 6 shocks / 11 ms half-sine (x, y, z)
MTTF	[years]	623
Mechanical data		
Weight	[g]	151.8
Housing		threaded type
Mounting		non-flush mountable
Dimensions	[mm]	M30 x 1.5 / L = 125
Thread designation		M30 x 1.5

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Materials	housing: PA; potentiometer: LCP; PBT	
Displays / operating elements		
Display	switching status	1 x LED, yellow
Accessories		
Items supplied	lock nuts: 2	
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
terminals: 0.34...1.5 mm²; Cable sheath: Ø 5...9 mm; Cable gland: M20 X 1.5		
Connection		

