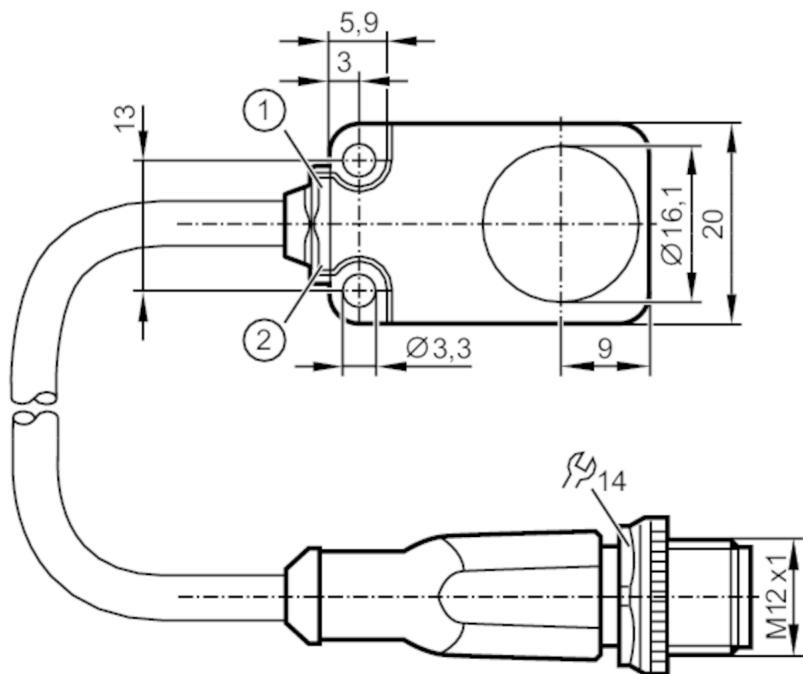
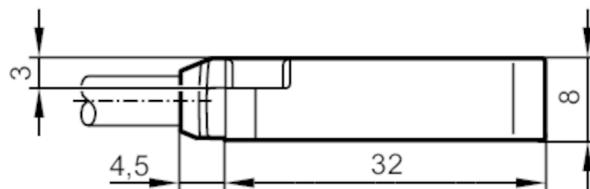


Inductive sensor with IO-Link

IQ23007BFRKG//IO/0.3M/PUR/US



- 1 LED yellow
2 LED green



Product characteristics

Electrical design	PNP/NPN; (configurable)	
Output function	normally open / closed; (configurable)	
Communication interface	IO-Link	
Housing	rectangular	
Dimensions [mm]	20 x 8 x 32	

Electrical data

Operating voltage [V]	10...30 DC	
Current consumption [mA]	< 30	
Protection class	III	
Reverse polarity protection	yes	

Outputs

Electrical design	PNP/NPN; (configurable)	
Output function	normally open / closed; (configurable)	
Max. voltage drop switching output DC [V]	2.5	

Inductive sensor with IO-Link

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Permanent current rating of switching output DC	[mA]	100										
Switching frequency DC	[Hz]	300										
Short-circuit protection		yes										
Overload protection		yes										
Monitoring range												
Switch point IO-Link	[mm]	1.4...7; (configurable)										
Measuring range IO-Link	[mm]	0.75...7.5										
Accuracy / deviations												
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3										
Hysteresis	[% of Sr]	3...15										
Note on hysteresis		configurable										
Linearity error IO-Link	[%]	± 2; (of the final value of the measuring range)										
Repeatability IO-Link	[%]	± 1; (of the final value of the measuring range)										
Temperature coefficient		± 0,6; (-25...70 °C: ± 0,3)										
	[%/K vom MEW]											
Temperature drift		± 10 %; (of the final value of the measuring range)										
Interfaces												
Communication interface		IO-Link										
Transmission type		COM2 (38,4 kBaud)										
IO-Link revision		1.1										
SDCI standard		IEC 61131-9 CDV										
Profiles		Smart Sensor: Identification and diagnosis; Multi-channel, two setpoint switching sensor, type 0 Generic Profiled Sensor; Teach Channel										
SIO mode		yes										
Required master port class		A										
Min. process cycle time	[ms]	3.2										
IO-Link process data (cyclical)		<table border="1"> <thead> <tr> <th>Function</th> <th>bit length</th> </tr> </thead> <tbody> <tr> <td>process value</td> <td>16</td> </tr> <tr> <td>device status</td> <td>4</td> </tr> <tr> <td>binary switching information</td> <td>2</td> </tr> </tbody> </table> application specific tag; operating hours counter	Function	bit length	process value	16	device status	4	binary switching information	2		
Function	bit length											
process value	16											
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IO-Link functions (acyclical)												
Supported DeviceIDs		<table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>1106</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	1106						
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default	1106											
Note		For further information please see the IODD PDF file at "Downloads"										
Operating conditions												
Ambient temperature	[°C]	-40...85										
Protection		IP 65; IP 66; IP 67; IP 68										
Tests / approvals												
EMC		<table border="1"> <tbody> <tr> <td>EN 61000-4-2 ESD</td> <td>4 kV CD / 8 kV AD</td> </tr> <tr> <td>EN 61000-4-3 HF radiated</td> <td>10 V/m</td> </tr> <tr> <td>EN 61000-4-4 Burst</td> <td>2 kV</td> </tr> <tr> <td>EN 61000-4-6 HF conducted</td> <td>10 V</td> </tr> <tr> <td>EN 55011</td> <td>class B</td> </tr> </tbody> </table>	EN 61000-4-2 ESD	4 kV CD / 8 kV AD	EN 61000-4-3 HF radiated	10 V/m	EN 61000-4-4 Burst	2 kV	EN 61000-4-6 HF conducted	10 V	EN 55011	class B
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EN 61000-4-4 Burst	2 kV											
EN 61000-4-6 HF conducted	10 V											
EN 55011	class B											
Vibration resistance		20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes										

Inductive sensor with IO-Link

IQ23007BFRKG/IO/0.3M/PUR/US

Shock resistance	EN 60068-2-27 Ea	100 g 11 ms half-sine; 3 shocks each in every direction of the 3 coordinate axes
Continuous shock resistance	EN 60068-2-27	40 g 6 ms; 4000 shocks each in every direction of the 3 coordinate axes
Fast temperature changes	EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 10 s 50 cycles
MTTF [years]		787
Embedded software included		yes
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A016
	File number UL	E174191

Mechanical data

Weight [g]	42.7
Housing	rectangular
Mounting	flush mountable
Dimensions [mm]	20 x 8 x 32
Material	diecast zinc special coating; sensing face: PBT orange; LED window: TPU (urethane); potting: PUR

Displays / operating elements

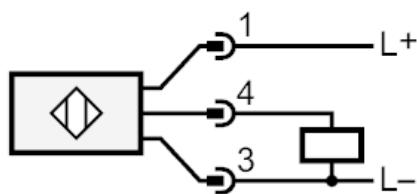
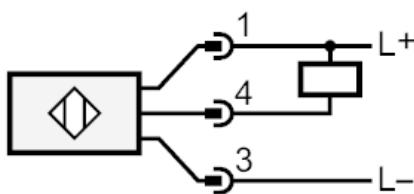
Display	Display operation	1 x LED, green
	Switching status	1 x LED, yellow

Remarks

Pack quantity	1 pcs.
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Electrical connection

Cable: 0.3 m, PUR, Ø 4.9 mm; 3 x 0.34 mm ²

Connection

IQ2009



Inductive sensor with IO-Link

IQ23007BFRKG/IO/0.3M/PUR/US

Connector: 1 x M12; coding: A

