



Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR



- 1 LED green
- 2 LED yellow



Product characteristics

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

Application

Special feature	Drag chain suitability
-----------------	------------------------

Electrical data

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

Outputs

Electrical design	PNP/NPN; (parameterisable)
Output function	normally open / normally closed; (parameterisable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	300
Short-circuit protection	yes
Overload protection	yes



Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR

Detection zone		
Switch point IO-Link [mm]	1.4...7; (parameterisable)	
Measuring range IO-Link [mm]	0.75...7.5	
Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 0.4 / copper: 0.3	
Hysteresis [% of Sr]	3...15	
Note on hysteresis	parameterisable	
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 [%/K vom MEW]	± 0,6; (-25...70 °C: ± 0,3)	
Temperature drift [% vom MEW]	± 10	
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 type	A	
Min. process cycle time [ms]	3.2	
IO-Link functions (cyclical)	function	bit length
	process value	16
	device status	4
	binary switching information	2
IO-Link functions (acyclical)	application specific tag; operating hours counter	
Supported DeviceIDs	Type of operation	IO-Link device ID
	Default	1106 d / 000452 h
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	



Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR

Tests / approvals		
EMC	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
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles per frequency; 1 octave per minute in 3 axes
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 change	EN 60068-2-14 Na	TA = -40°C; TB = 85°C; t1 = 30 min; t2 = < 10 s 50 cycles
MTTF	[years]	787
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL Approval no.	A015
	File number UL	E174191
Mechanical data		
Weight	[g]	79.2
Housing		rectangular
Mounting		flush mountable
Dimensions	[mm]	20 x 8 x 32
Materials		diecast zinc special coating; sensing face: PBT orange; LED window: TPU; potting: PUR
Drag chain suitability		yes
Drag chain suitability	bending radius for flexible use	min. 10 x cable diameter
	bending cycles	> 5 Mio.
Displays / operating elements		
Display	Display operation	1 x LED, green
	switching status	1 x LED, yellow
Remarks		
Pack quantity		1 pcs.

IQ2008



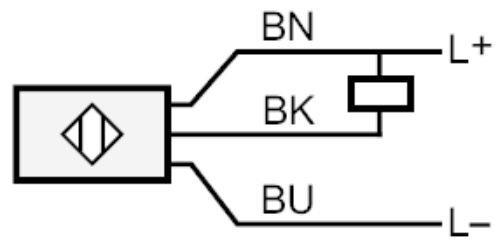
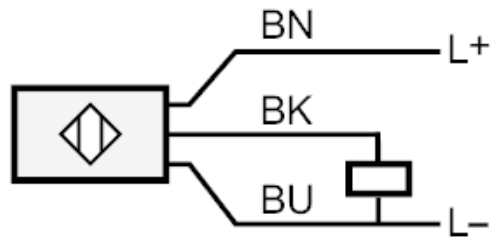
Inductive sensor with IO-Link

IQ23007BFRKG/IO/2M/PUR

Electrical connection

Cable: 2 m, PUR, Ø 4.9 mm; 3 x 0.34 mm²

Connection



BN	brown
BU	blue
BK	black OUT / IO-Link