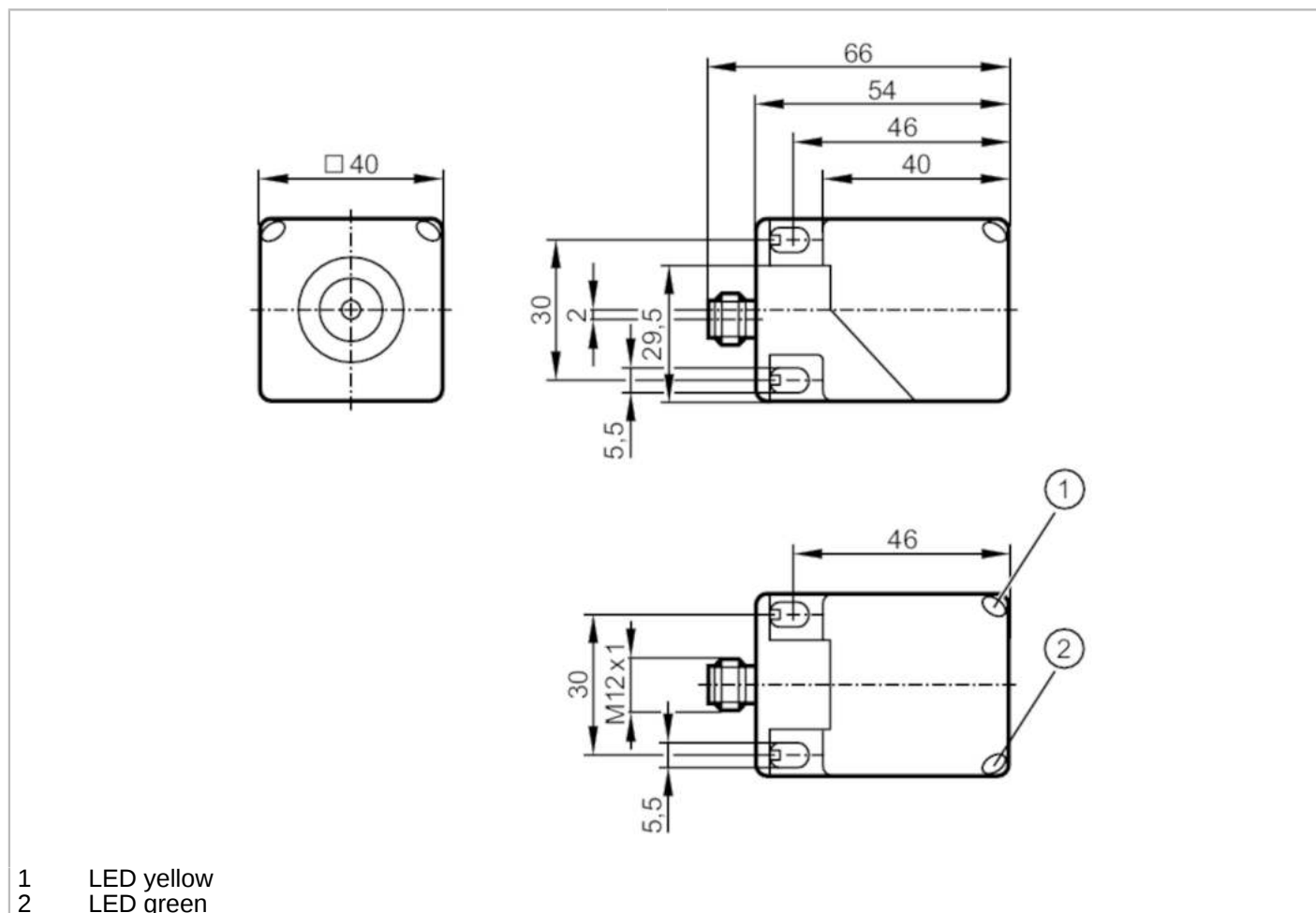


IM5172



Inductive sensor with IO-Link

IMC3020BFRKG/IO/US-100



Product characteristics	
Electrical design	PNP/NPN; (parameterisable)
Output function	normally open / normally closed; (selectable)
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	40 x 40 x 54
Application	
Special feature	Gold-plated contacts
Electrical data	
Operating voltage [V]	10...30 DC
Current consumption [mA]	10
Protection class	III
Reverse polarity protection	yes



Inductive sensor with IO-Link

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Outputs		
Electrical design	PNP/NPN; (parameterisable)	
Output function	normally open / normally closed; (selectable)	
Max. voltage drop switching output DC [V]	2.5	
Permanent current rating of switching output DC [mA]	100	
Switching frequency DC [Hz]	100	
Short-circuit protection	yes	
Overload protection	yes	
Detection zone		
Switch point IO-Link [mm]	3.9...19.5; (parameterisable)	
Measuring range IO-Link [mm]	2.1...21	
Accuracy / deviations		
Correction factor	steel: 1 / stainless steel: 0.8 / brass: 0.4 / aluminium: 0.4 / copper: 0.3	
Hysteresis [% of Sr]	3...15	
Linearity error of analogue output [%]	± 2 %; (of the final value of the measuring range)	
Repeatability analogue output [%]	± 1 %; (of the final value of the measuring range)	
Temperature coefficient	± 0,2 %/K; (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: Device Identification; Device Diagnosis; Device Teach Channel; Binary Data Channel; Process Data Variable	
SIO mode	yes	
Required master port type	A	
Min. process cycle time [ms]	3	
Supported DeviceIDs	Type of operation	DeviceID
	Default	791
Operating conditions		
Ambient temperature [°C]	-25...80	
Protection	IP 67	

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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
MTTF	[years]	632
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A009
	File number UL	E174191

Mechanical data		
Weight	[g]	147
Housing		rectangular
Sensing face		5 positions selectable
Mounting		flush mountable
Dimensions	[mm]	40 x 40 x 54
Materials		housing: PA; sensing face: PA black; end cap: PA; clamp: orange; screw: stainless steel (1.4567 / 304Cu)

Displays / operating elements		
Display	operation	LED, green
	SIO mode	
	output stage supplied with current	LED, yellow lights
	IO-Link mode	
	target in measuring range	LED, yellow lights

Remarks		
Pack quantity		1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A; Locking: stainless steel (1.4404 / 316L); Contacts: gold-plated



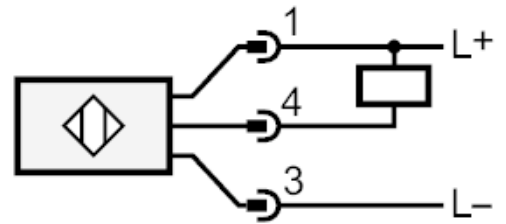
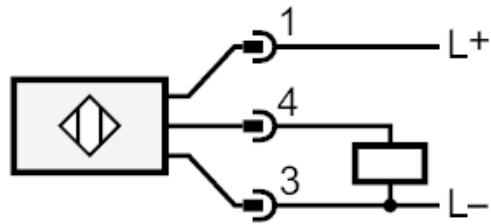
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Connection



4: OUT / IO-Link
Factory setting : PNP / normally open