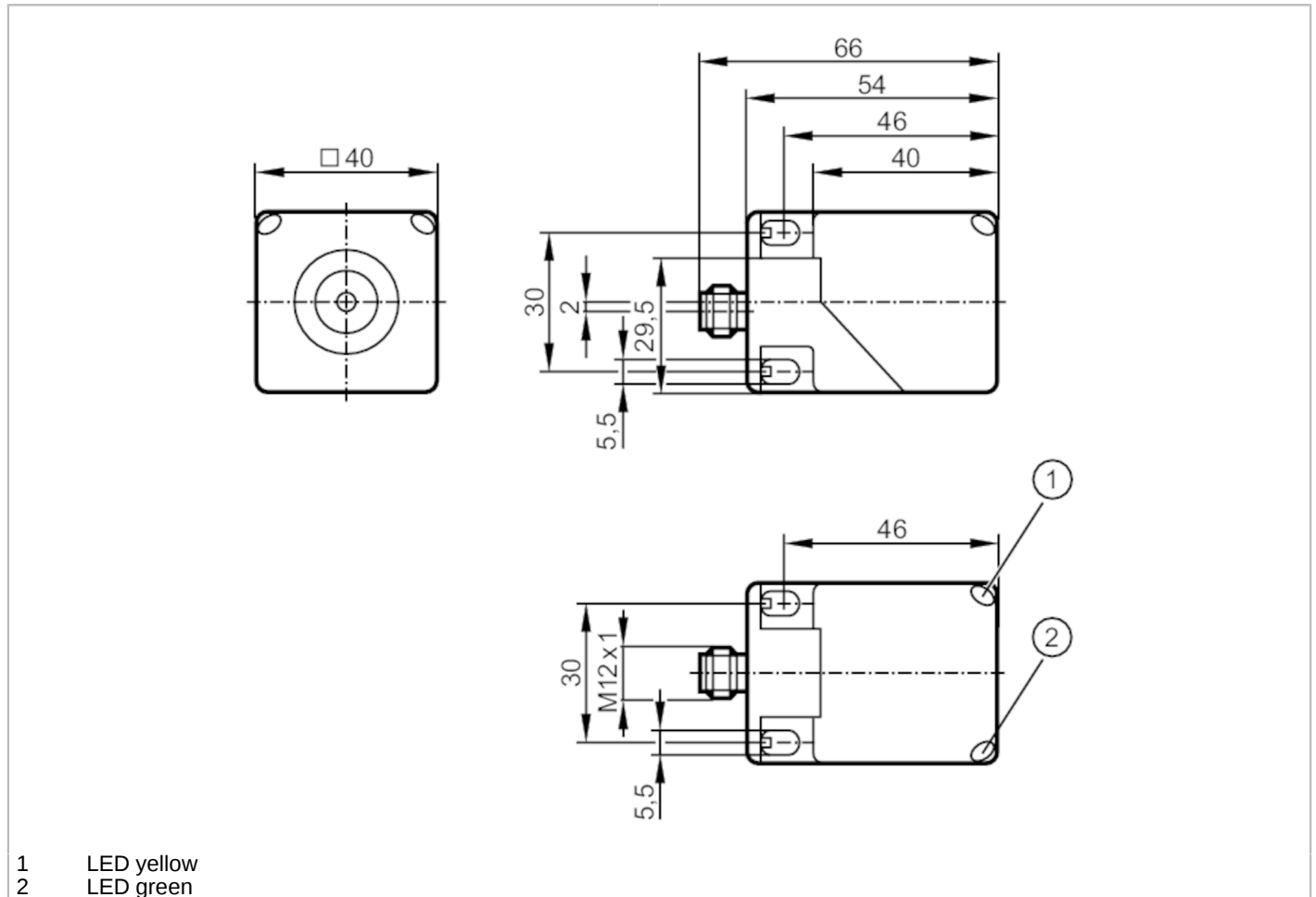


IM5172



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

Electrical data

Operating voltage [V]	10...30 DC
Current consumption [mA]	< 20
Protection class	III
Reverse polarity protection	yes

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

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Short-circuit protection	yes
Overload protection	yes

Detection zone

Switch point IO-Link [mm]	3.9...19.6; (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	<table><thead><tr><th>Type of operation</th><th>DeviceID</th></tr></thead><tbody><tr><td>default</td><td>791</td></tr></tbody></table>	Type of operation	DeviceID	default	791
Type of operation	DeviceID				
default	791				

Operating conditions

Ambient temperature [°C]	-25...80
Protection	IP 67

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	
Embedded software included	yes	
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

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Dimensions [mm]	40 x 40 x 54
Materials	PA

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.
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Electrical connection - plug

Connector: 1 x M12; coding: A; Moulded body: brass, white bronze coated



Connection



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