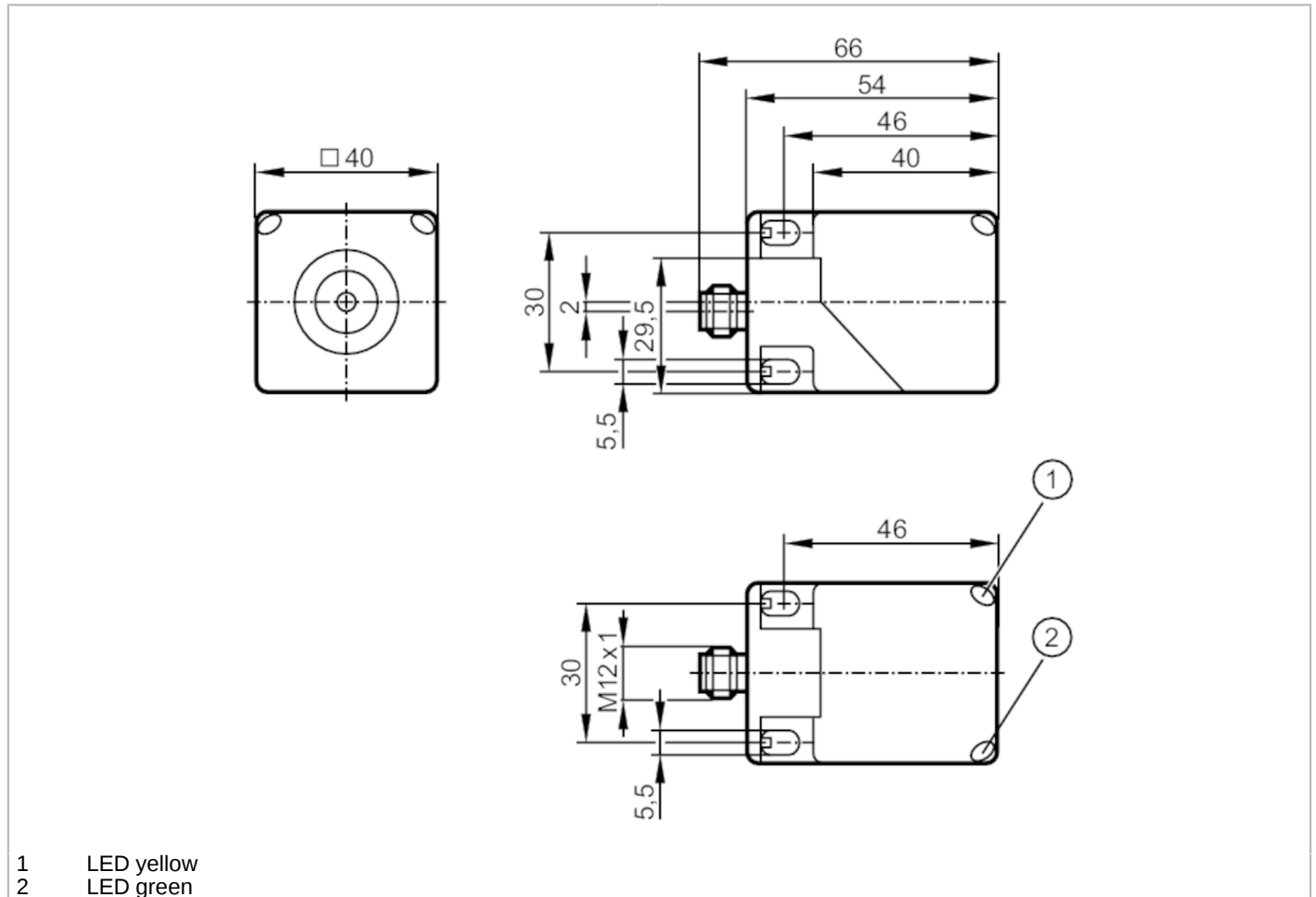


IM5183



Inductive sensor with IO-Link

IMC4020BFRKG/IO/US-100



Product characteristics	
Electrical design	PNP/NPN; (parameterisable)
Output function	normally open / normally closed; (parameterisable)
Communication interface	IO-Link
Housing	rectangular
Dimensions [mm]	40 x 40 x 54
Electrical data	
Operating voltage [V]	10...30 DC
Current consumption [mA]	< 17
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]	100

IM5183



Inductive sensor with IO-Link

IMC4020BFRKG/IO/US-100

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
Note on hysteresis		parameterisable
Linearity error IO-Link	[%]	± 2; (of the final value of the measuring range)
Repeatability analogue output	[%]	± 1; (of the final value of the measuring range)
Temperature coefficient	[%/K vom MEW]	± 0,3
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
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 process data (cyclical)	function	bit length
	process value	16
	device status	4
	binary switching information	2
IO-Link functions (acyclical)		switching cycles counter; switch-on cycle counter; operating hours counter; internal temperature; application specific tag
Supported DeviceIDs	Type of operation	DeviceID
	Default	1344
Note		For further information please see the IODD PDF file under "Downloads"
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
Vibration resistance	EN 60068-2-6 Fc	20 g (10...3000 Hz) / 50 sweep cycles, 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

IM5183



Inductive sensor with IO-Link

IMC4020BFRKG/IO/US-100

Continuous shock resistance	EN 60068-2-27 Ea	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]		580
Embedded software included		yes
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	power supply	Limited Voltage/Current
	UL Approval no.	A035
	File number UL	E174191

Mechanical data		
Weight [g]		145.4
Housing		rectangular
Mounting		flush mountable
Dimensions [mm]		40 x 40 x 54
Materials		brass white bronze coated; sensing face: PBT orange; LED window: PEI; lock nuts: brass white bronze coated

Displays / operating elements		
Display	switching status	4 x LED, yellow lights

Accessories		
Items supplied		lock nuts: 2

Remarks		
Pack quantity		1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A



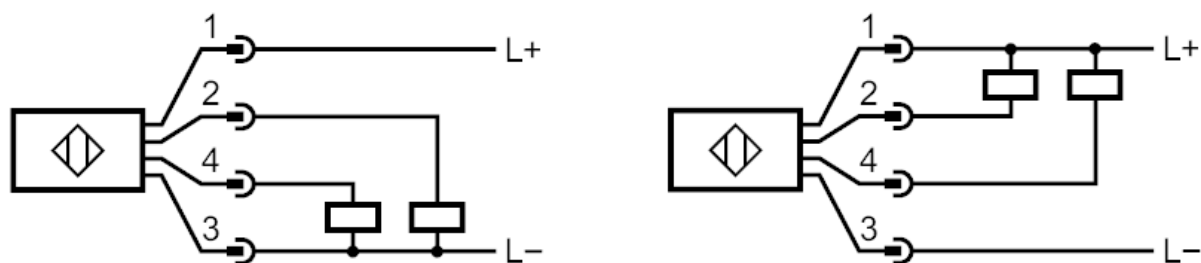
IM5183



Inductive sensor with IO-Link

IMC4020BFRKG/IO/US-100

Connection



- 2: OUT 2
- 4: OUT / IO-Link 1