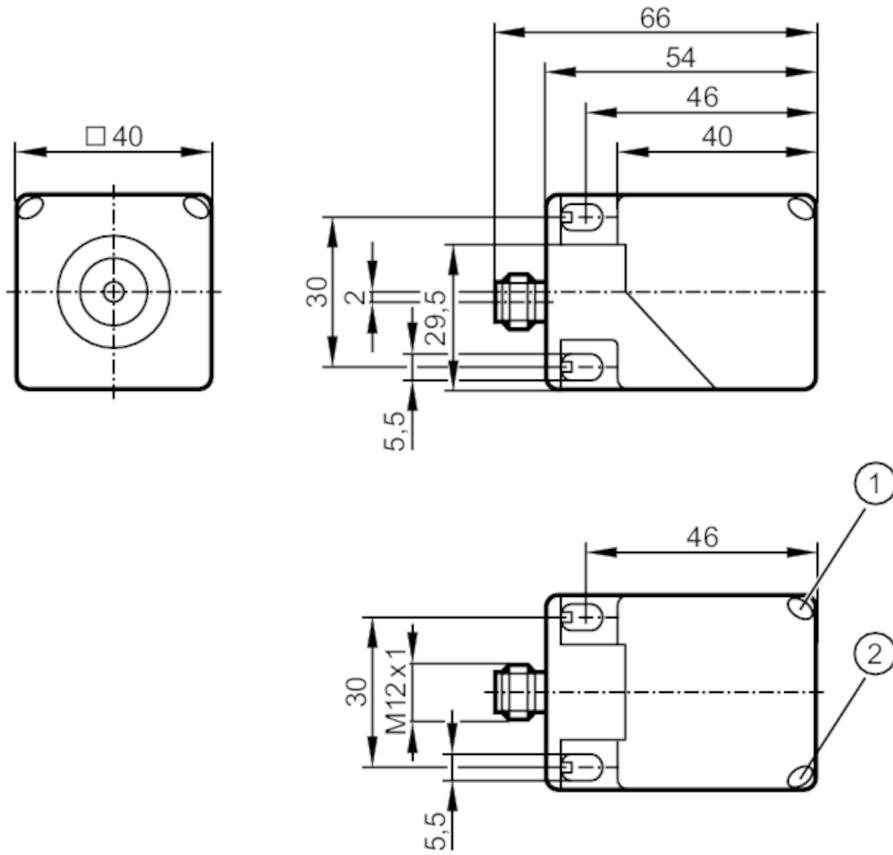


IM5141



Inductive analog sensor with IO-Link

IMC4026A1PKG/IO/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]	40 x 40 x 54

Electrical data

Operating voltage [V]	15...30 DC
Current consumption [mA]	< 33
Protection class	II
Reverse polarity protection	yes

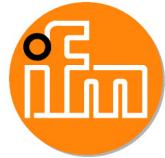
Outputs

Electrical design	PNP/NPN; (configurable)
Output function	normally open / closed; (configurable)
Max. voltage drop switching output DC [V]	2.5
Permanent current rating of switching output DC [mA]	100
Switching frequency DC [Hz]	100

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Analog current output	[mA]	4...20; (linear; gradient: 0,64 mA/mm; for frontal approach and for target made of mild steel: 90 x 90 x 1 mm)								
Max. load	[Ω]	500; (Ub <=18 V;; Max. load <=400 Ω)								
Short-circuit protection		yes								
Overload protection		yes								
Monitoring range										
Measuring range	[mm]	1...26								
Switch point IO-Link	[mm]	3.44...24.2								
Accuracy / deviations										
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.4 / aluminum: 0.4 / copper: 0.3								
Hysteresis	[% of Sr]	3...15								
Note on hysteresis		configurable								
Linearity error of analog output	[%]	± 2; (of the final value of the measuring range)								
Repeatability analog output	[%]	± 2; (of the final value of the measuring range)								
Temperature coefficient	[%/K vom MEW]	±0,15								
Temperature drift		± 5 %; (of the final value of the measuring range)								
Reaction times										
Response time	[ms]	< 20								
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 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>	Function	bit length	process value	16	device status	4	binary switching information	2
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		<table border="1"> <thead> <tr> <th>Type of operation</th> <th>DeviceID</th> </tr> </thead> <tbody> <tr> <td>default</td> <td>1205</td> </tr> </tbody> </table>	Type of operation	DeviceID	default	1205				
Type of operation	DeviceID									
default	1205									
Note		For further information please see the IODD PDF file at "Downloads"								
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]		232
Embedded software included		yes
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A025
	File number UL	E174191
Mechanical data		
Weight [g]		157.5
Housing		rectangular
Sensing face		5 positions selectable
Mounting		non-flush mountable
Dimensions [mm]		40 x 40 x 54
Material		PA; brass white bronze coated
Displays / operating elements		
Display	target in measuring range	1 x LED, yellow lights
	target outside measuring range	1 x LED, yellow flashing
	Power	LED, green
Remarks		
Pack quantity		1 pcs.
Electrical connection - plug		
Connector: 1 x M12; coding: A		
		

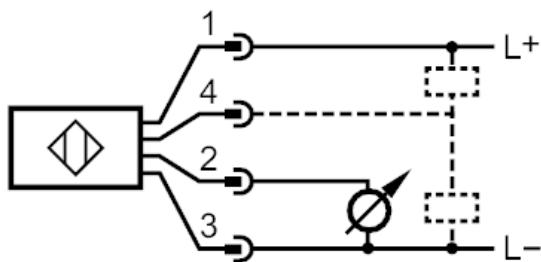
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Connection



1	L +
2	OUT
3	L -
4	OUT / IO-Link