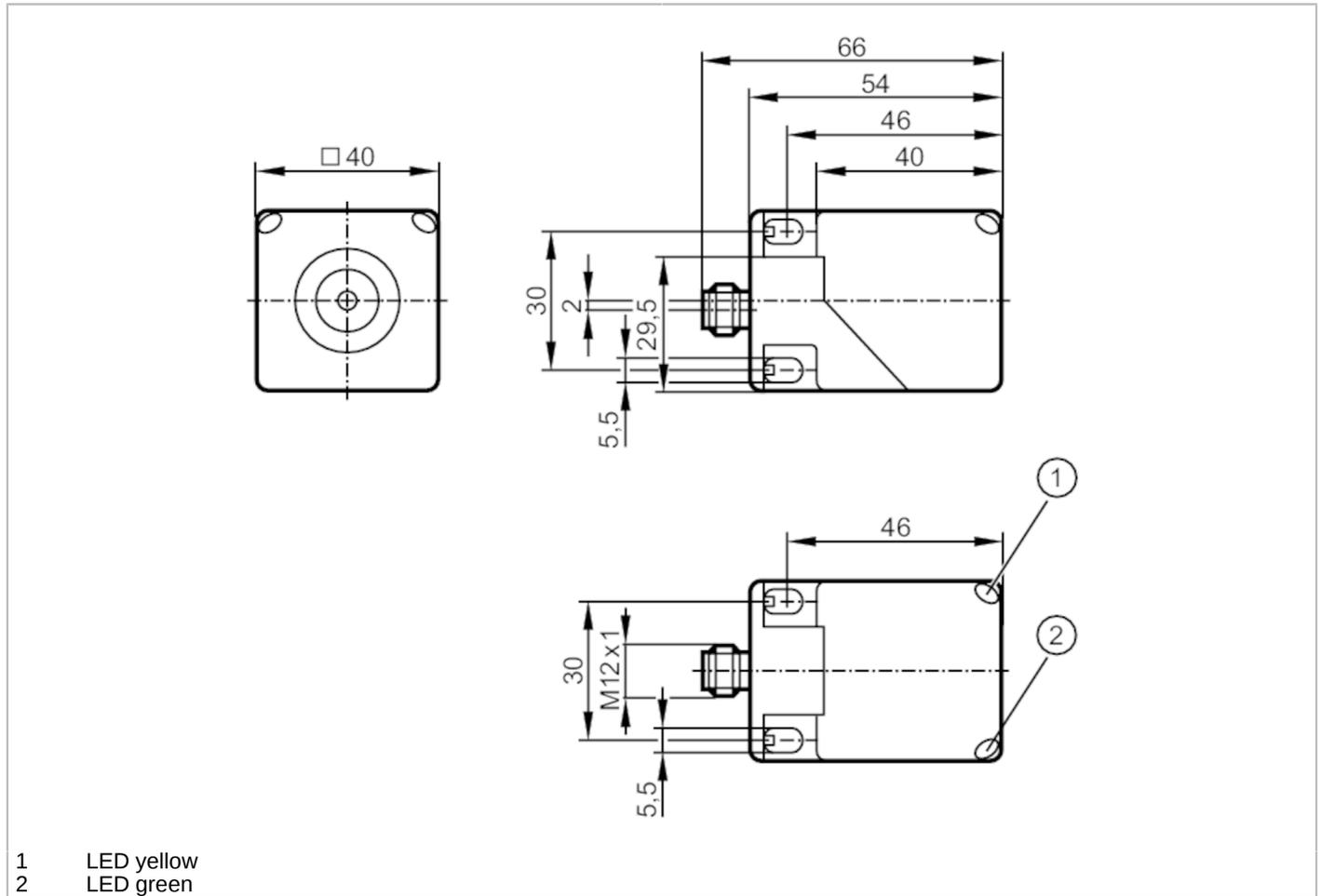


# IM5140



## Inductive analog sensor with IO-Link

IMC4015A2PKG/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 voltage output	[V]	0...10; (linear; gradient: 0,714 V/mm; for frontal approach and for target made of mild steel: 45 x 45 x 1 mm)	
Min. load resistance	[Ω]	2000	
Short-circuit protection		yes	
Overload protection		yes	
<b>Monitoring range</b>			
Measuring range	[mm]	1...15	
Switch point IO-Link	[mm]	2.37...13.99	
<b>Accuracy / deviations</b>			
Correction factor		steel: 1 / stainless steel: 0.9 / 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)	
<b>Reaction times</b>			
Response time	[ms]	< 20	
<b>Interfaces</b>			
Communication interface		IO-Link	
Transmission type		COM2 (38,4 kBaud)	
IO-Link revision		1.1	
SDCI standard		IEC 61131-9	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor	
	Common - I&D	Identification and Diagnosis	
	Function	Multiple switching signal	
	Function	Teach channel	
SIO mode		yes	
Required master port class		A	
Min. process cycle time	[ms]	3.2	
IO-Link process data (cyclical)	<b>Function</b>	<b>bit length</b>	
	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	<b>Type of operation</b>	<b>DeviceID</b>	
	default	1206	
Note		For further information please see the IODD PDF file at "Downloads"	
<b>Operating conditions</b>			
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]		230
Embedded software included		yes
UL approval	Ta	-25...70 °C
	Enclosure type	Type 1
	voltage supply	Limited Voltage/Current
	UL approval number	A026
	File number UL	E174191

Mechanical data		
Weight [g]		152.5
Housing		rectangular
Sensing face		5 positions selectable
Mounting		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



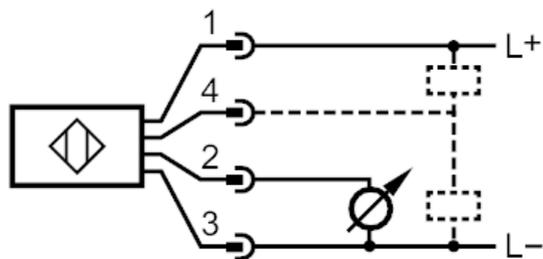
# IM5140



## Inductive analog sensor with IO-Link

IMC4015A2PKG/IO/US

### Connection



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