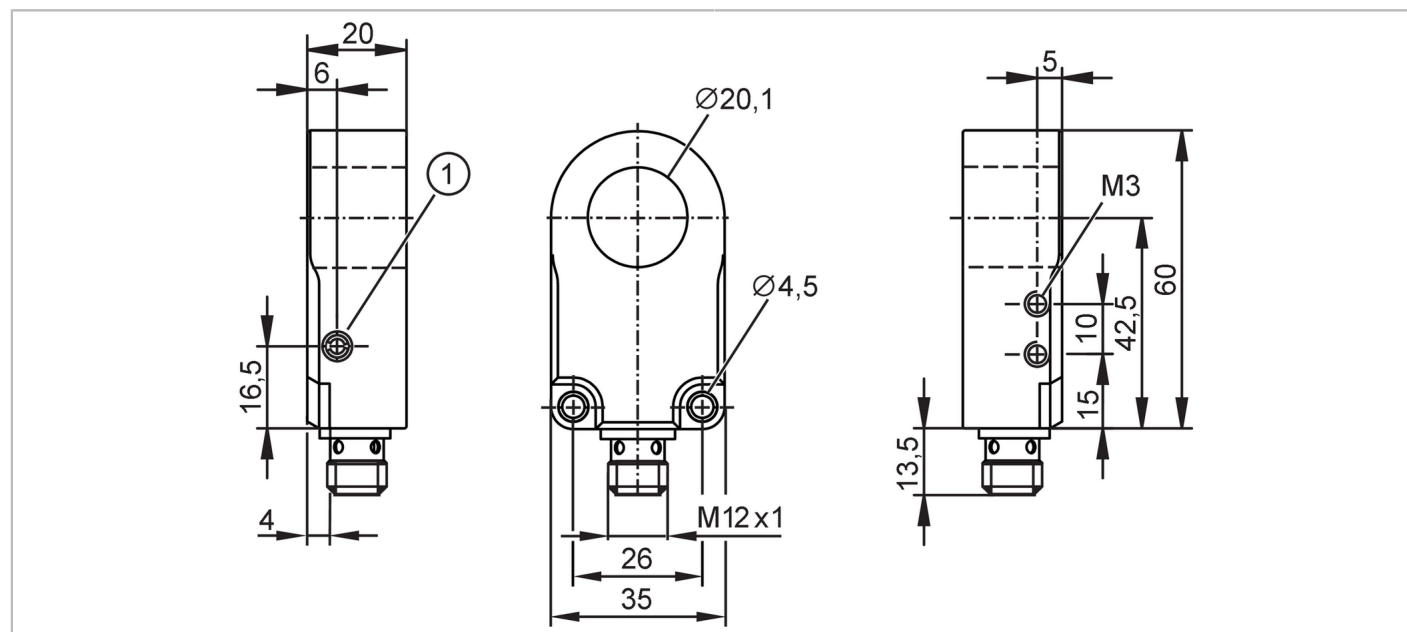




Inductive ring sensor

I7R3020-FRKG/IO/US-104



Product characteristics

Electrical design	PNP/NPN; (selectable)
Output function	normally open / closed; (selectable)
Communication interface	IO-Link
Housing	circular
Dimensions [mm]	60 x 35 x 20

Application

Principle of operation	static; dynamic; (selectable)
Application	Industrial applications

Electrical data

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

Outputs

Electrical design	PNP/NPN; (selectable)
Output function	normally open / closed; (selectable)
Max. voltage drop switching output DC [V]	2
Permanent current rating of switching output DC [mA]	100
Factory setting	Electrical design: PNP
	Output function: normally open
	Principle of operation: static
Short-circuit protection	yes
Overload protection	yes

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Inductive ring sensor

I7R3020-FRKG/IO/US-104

Monitoring range		
Max. part speed	[m/s]	35
Dynamic		
Resolution of steel ball (diameter)	[mm]	1
Static		
Resolution of steel ball (diameter)	[mm]	2.5
Reaction times		
Pulse stretching	[ms]	0...60000
Pulse stretching adjustable		yes
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
IO-Link revision	1.1	
SDCI standard	IEC 61131-9	
Profiles	Smart Sensor - SSP 4.1.1	Measuring and Switching Sensor, 1 channel
	Common - I&D	Identification and Diagnosis
	Extension	Teach dynamic
	Extension	Quantity detection, switches when value exceeds the setpoint
	Function	Locator
	Function	ProductURI
SIO mode	yes	
Required master port class	A	
Min. process cycle time	[ms]	3.2
Supported DeviceIDs	Type of operation	DeviceID
	default	1764
Operating conditions		
Ambient temperature	[°C]	-25...70
Protection	IP 67	
Tests / approvals		
MTTF	[years]	658
UL approval	Ta	-25...70 °C
	Enclosure type	Type 4X (indoor use only) / 12 and 13
	voltage supply	Class 2
	File number UL	E174191
Mechanical data		
Weight	[g]	58.4
Housing	circular	
Dimensions	[mm]	60 x 35 x 20
Inside diameter	[mm]	20.1
Material	housing: PA; ring: POM	
Displays / operating elements		
Display	Switching status	4 x LED, yellow

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Inductive ring sensor

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Remarks

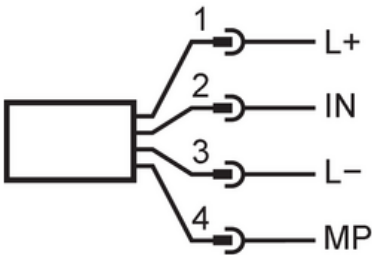
Pack quantity 1 pcs.

Electrical connection - plug

Connector: 1 x M12; coding: A; Contacts: 4



Connection



1	L+	
2	IN	DI (Teach)
3	L-	
4	MP	DO (NO/NC), IO-Link

DI: digital input; DO: digital output; MP: multi-function connection; NC: normally closed; NO: normally open