



Efficient communication without wear

INDUCTIVE COUPLERS



Fixed wiring of sensors and actuators comes with drawbacks: cable and contacts are often severely loaded in automation, and cables can fatigue and break. In the worst case scenario this can result in a machine failure. Our BIC inductive couplers transmit data and power contactlessly across an air gap. Thus, no mechanical wear is produced. The system availability is higher, the cycle times are shorter and the sequences are more flexible. The units can quickly be disconnected, are easy to handle and are maintenance-free. This enables you to meet new demands quickly.

Features

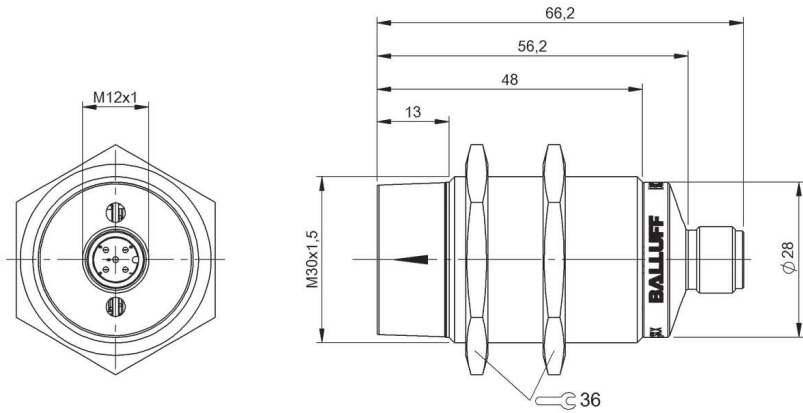
- No mechanical wear
- Higher system availability, shorter cycle times, more flexible sequences
- Quickly disconnectable, easy to handle, maintenance free



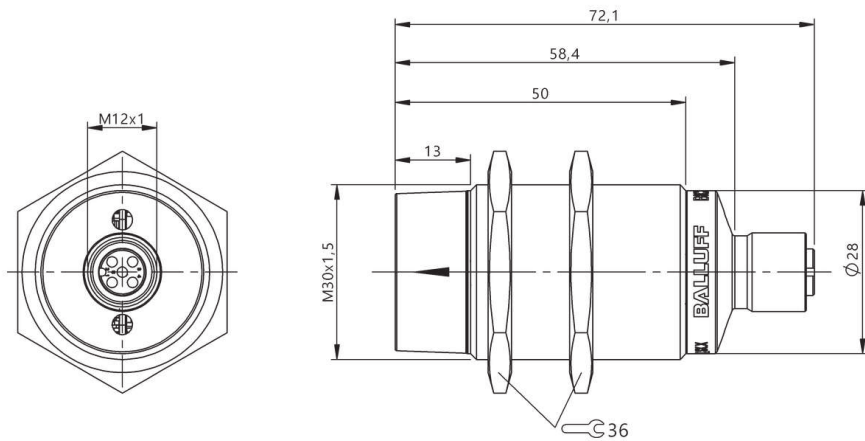
	BIC007L BIC 1B0-ITA50-M30MF1-SM4A5A	BIC007E BIC 2B0-ITA50-M30MF1-SM4A5A	
Function	IO-Link signal transmission	IO-Link signal transmission	
Signal type	bi-directional	bi-directional	
Transmission distance	0...10 mm	0...10 mm	
Component	Base	Remote	
Interface	IO-Link 1.1	IO-Link 1.1	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Rated operating voltage U _e	24 VDC	—	
Output voltage	—	24 VDC	
Rated output current	—	650 mA	
Output current max.	—	5 A / 0.12 ms	
Housing material	Brass	Brass	
Dimension	Ø 30 x 66.2 mm	Ø 30 x 72.1 mm	
Ambient temperature	-5...55 °C	-5...55 °C	
Protection degree	IP67	IP67	
Transfer rate	COM2 (38.4 kBaud)	COM2 (38.4 kBaud)	
Additive cycle time	Device + 2.0 ms	Device + 2.0 ms	
Process data in	0...32 bytes	0...32 bytes	
Process data out	0...32 bytes	0...32 bytes	
SiO mode	yes	yes	
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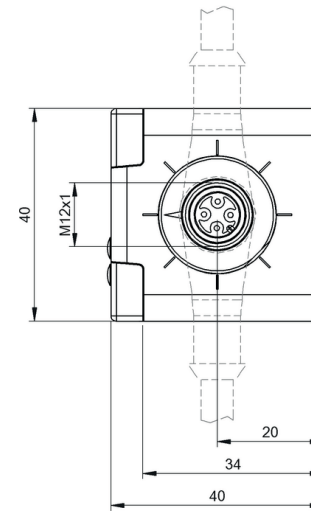
	BIC007F BIC 1B0-TT1A7-Q40KFU-SM4A4A	BIC007H BIC 2B0-TT1A7-Q40KFU-SM4A5A	BIC007O BIC 1B0-ITA50-Q40KFU-SM4A4A	BIC007I BIC 2B0-ITA50-Q40KFU-SM4A5A
Function	IO-Link signal transmission	IO-Link signal transmission	IO-Link signal transmission	IO-Link signal transmission
Signal type	bi-directional	bi-directional	bi-directional	bi-directional
Transmission distance	0...5 mm	0...5 mm	0...5 mm	0...5 mm
Component	Base	Remote	Base	Remote
Interface	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 5-pin
Rated operating voltage U _e	24 VDC	—	24 VDC	—
Output voltage	—	24 VDC	—	24 VDC
Rated output current	—	1.7 A	—	500 mA
Output current max.	—	5 A / 1 ms	—	5 A / 0.05 ms
Housing material	PBTP	PBTP	PBTP	PBTP
Dimension	40 x 40 x 62 mm	40 x 40 x 60.8 mm	40 x 40 x 62 mm	40 x 40 x 63 mm
Ambient temperature	-5...55 °C	-5...55 °C	-5...65 °C	-5...65 °C
Protection degree	IP67	IP67	IP67	IP67
Transfer rate	COM2 (38.4 kBaud), COM3 (230.4 kBaud)	COM2 (38.4 kBaud), COM3 (230.4 kBaud)	COM2 (38.4 kBaud)	COM2 (38.4 kBaud)
Additive cycle time	Device + 2.8 ms	Device + 2.8 ms	Device + 2.0 ms	Device + 2.0 ms
Process data in	0...32 bytes	0...32 bytes	0...32 bytes	0...32 bytes
Process data out	0...32 bytes	0...32 bytes	0...32 bytes	0...32 bytes
SiO mode	no	no	yes	yes
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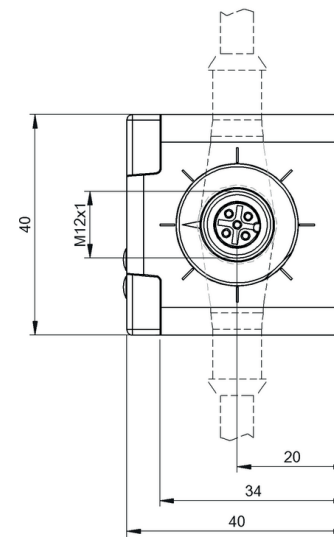
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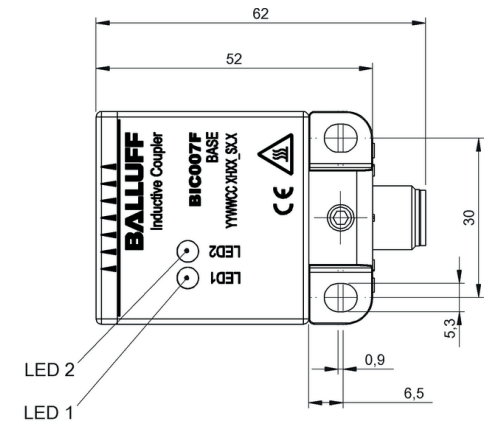
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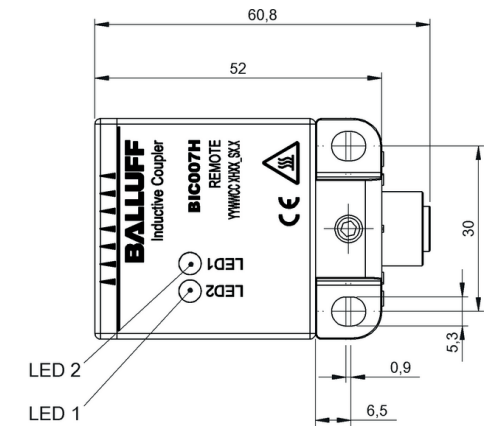
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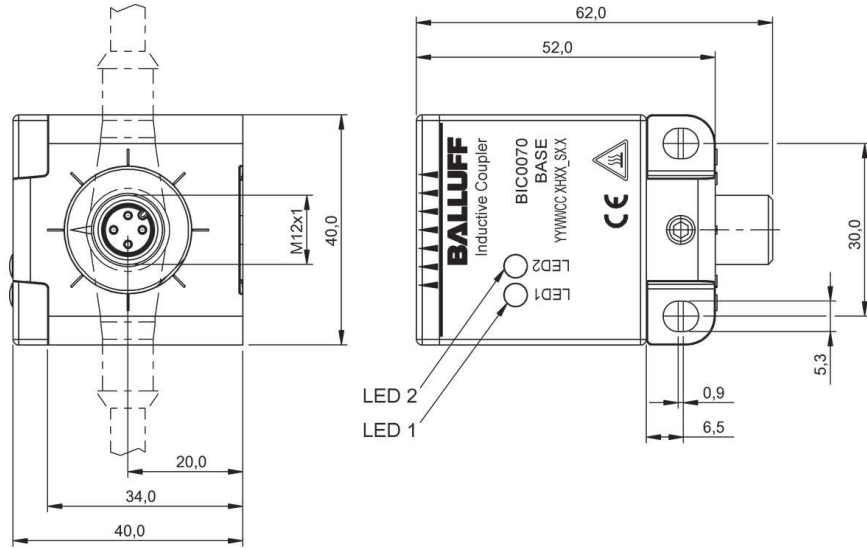
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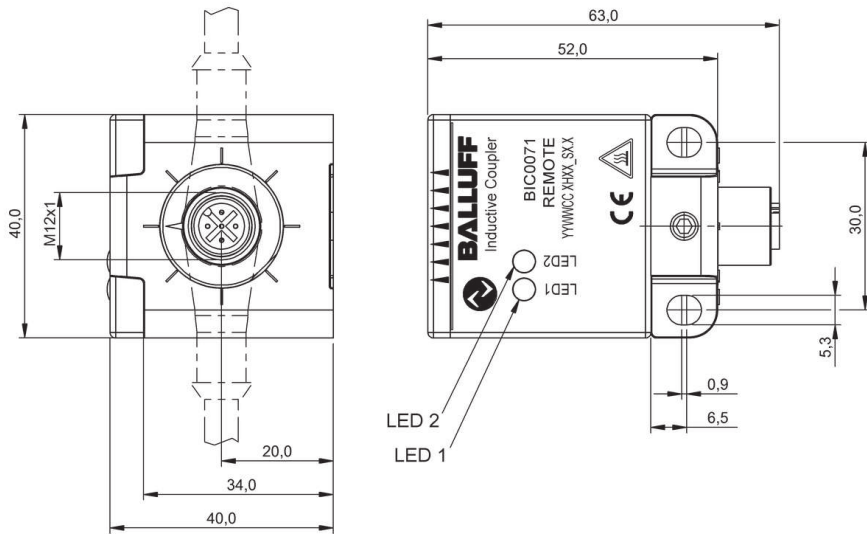
LED 2
LED 1



LED 2
LED 1



BIC0070



BIC0071



	BIC007J BIC 113-P2A50-Q40KFU-EPX0-002-M4CA	BIC007K BIC 213-P2A50-Q40KFU-EPX0-002-M4CA	
Function	Signal transmission	Signal transmission	
Signal type	unidirectional	unidirectional	
Digital inputs	—	8x PNP	
Digital outputs	8x PNP	—	
Transmission distance	0...5 mm	0...5 mm	
Component	Base	Remote	
Connection	Connector, M12x1, 12-pin, 0.20 m, PUR	Connector, M12x1, 12-pin, 0.20 m, PUR	
Rated operating voltage U _e	24 VDC	—	
Output voltage	—	24 VDC	
Rated output current	—	500 mA	
Housing material	PBTP	PBTP	
Dimension	40 x 40 x 52 mm	40 x 40 x 52 mm	
Ambient temperature	-5...65 °C	-5...65 °C	
Protection degree	IP67	IP67	
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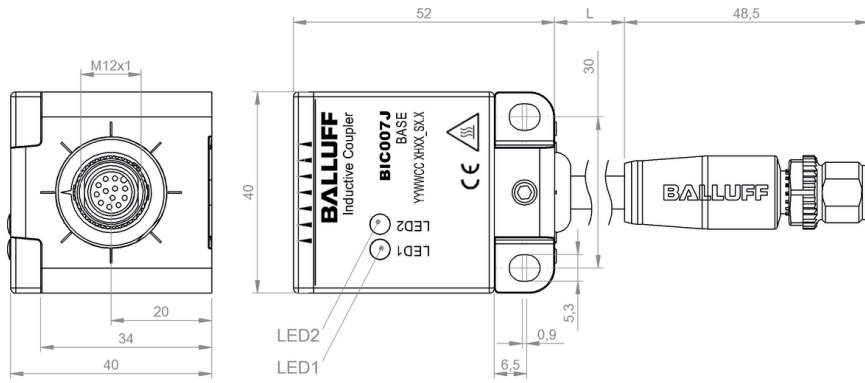
	BIC0077 BIC 111-P2A05-M12MM-BPX0-003-M45A	BIC0078 BIC 211-P2A05-M12MF-BPX0-003-M44A	BIC007T BIC 1122-P2A02-M18MN2-EPX07-050	BIC007U BIC 2122-P2A02-M18MF2-EPX07-050
Function	Signal transmission	Signal transmission	Signal transmission	Signal transmission
Signal type	unidirectional	unidirectional	unidirectional	unidirectional
Digital inputs	—	2x PNP	—	4x PNP
Digital outputs	2x PNP	—	4x PNP	—
Transmission distance	0...2.5 mm	0...2.5 mm	1...3 mm	1...3 mm
Component	Base	Remote	Base	Remote
Connection	Connector, M12x1, 5-pin, 0.30 m, PUR	Connector, M12x1, 5-pin, 0.30 m, PUR	Cable, 5.00 m, PUR	Cable, 5.00 m, PUR
Rated operating voltage U _e	24 VDC	—	24 VDC	12 VDC
Output voltage	—	24 VDC	—	24 VDC
Rated output current	—	50 mA	—	100 mA
Housing material	Brass	Brass	Brass	Brass
Dimension	Ø 12 x 65 mm	Ø 12 x 41 mm	Ø 18 x 94 mm	Ø 18 x 61 mm
Ambient temperature	-10...50 °C	-10...50 °C	0...50 °C	0...50 °C
Protection degree	IP67	IP67	IP67	IP67
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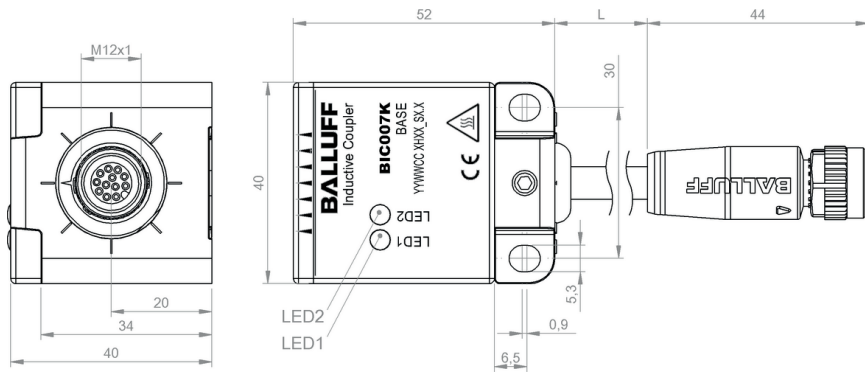
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Function	Signal transmission	Signal transmission	
Signal type	unidirectional	unidirectional	
Digital inputs	—	8x PNP	
Digital outputs	8x PNP	—	
Transmission distance	0...5 mm	0...5 mm	
Component	Base	Remote	
Connection	Connector, M12x1, 12-pole	Connector, M12x1, 12-pin, 0.20 m, PUR	
Rated operating voltage U _e	24 VDC	—	
Output voltage	—	24 VDC	
Rated output current	—	500 mA	
Housing material	Brass	Brass	
Dimension	Ø 30 x 107 mm	Ø 30 x 85.5 mm	
Ambient temperature	0...55 °C	0...55 °C	
Protection degree	IP67	IP67	
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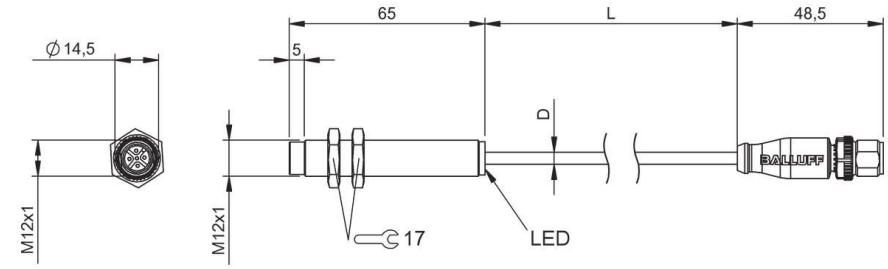
	BIC000A BIC 213-P2A50-M30MI3-SM4ACA		
Function	Signal transmission		
Signal type	unidirectional		
Digital inputs	8x PNP		
Digital outputs	—		
Transmission distance	0...5 mm		
Component	Remote		
Connection	Connector, M12x1, 12-pole		
Rated operating voltage U _e	—		
Output voltage	24 VDC		
Rated output current	500 mA		
Housing material	Brass		
Dimension	Ø 30 x 106 mm		
Ambient temperature	0...55 °C		
Protection degree	IP67		
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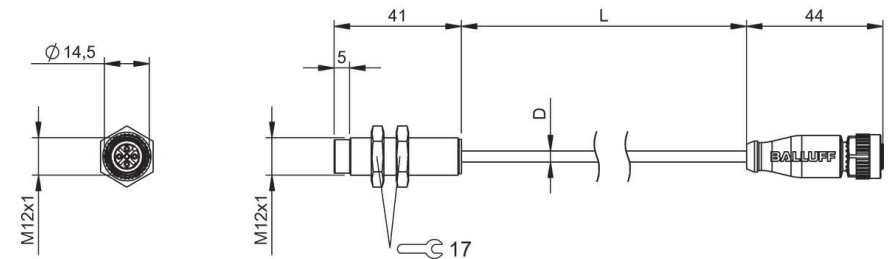
BIC007J



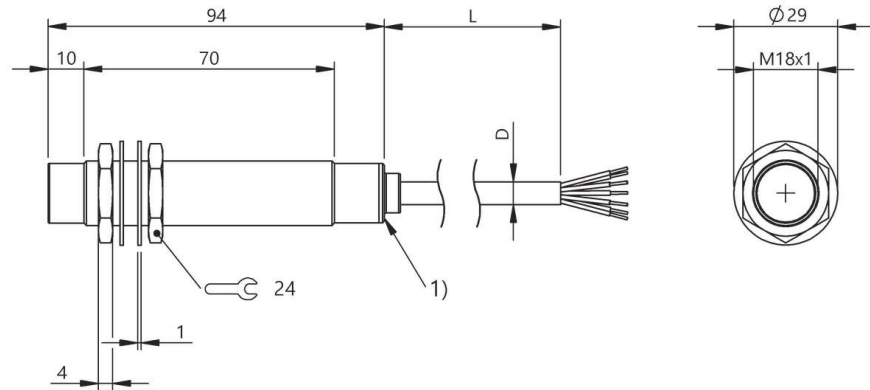
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BIC0077

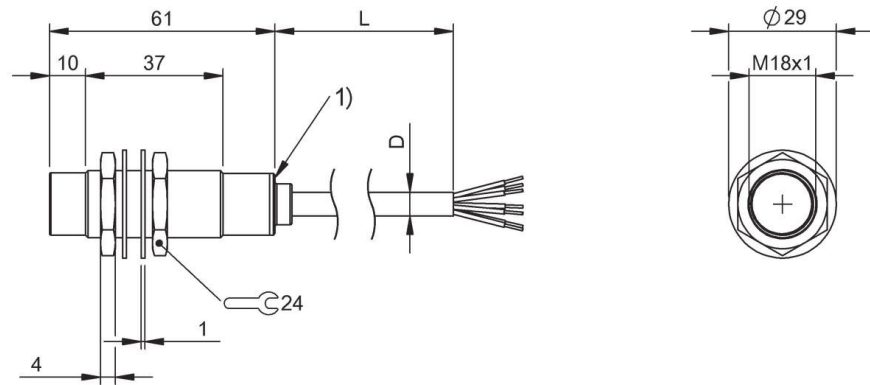


BIC0078



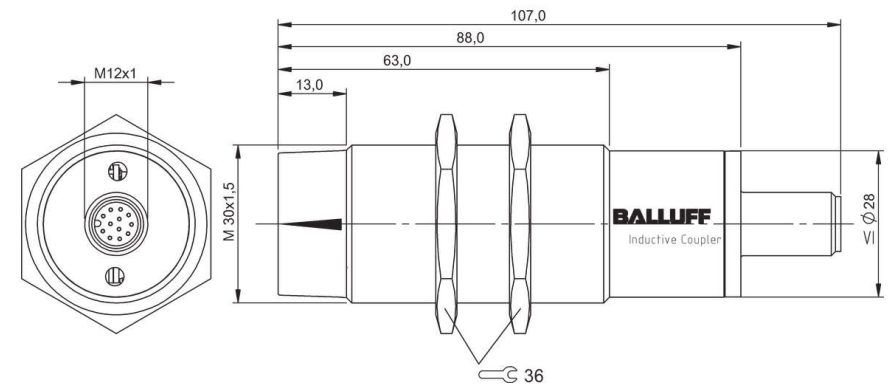
1) LED function indicator

BIC007T

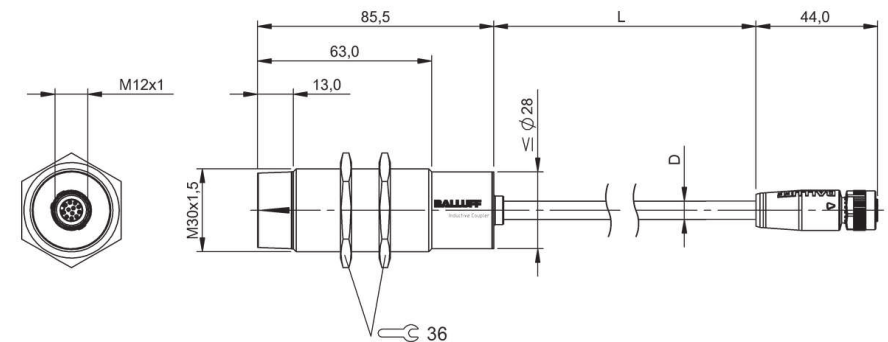


1) LED function indicator

BIC007U

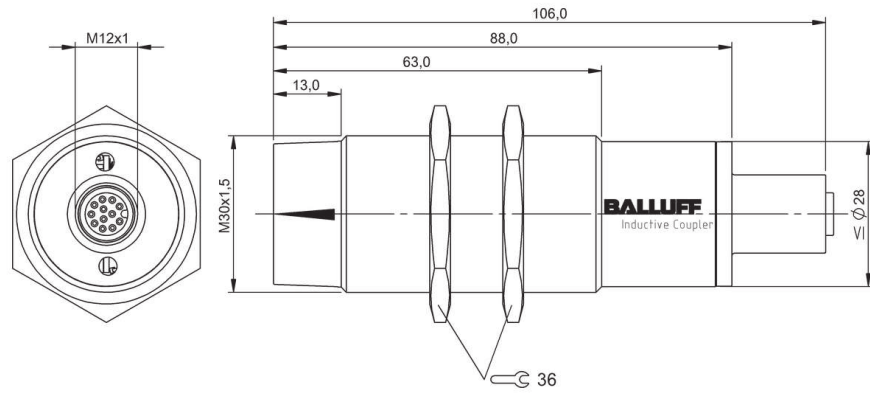


BIC0009



BIC005J

Do you need more details? Our Product Finder at www.balluff.com provides you with product-specific information, including technical drawings, data sheets, user guides and more for each individual product. All items are available for download.



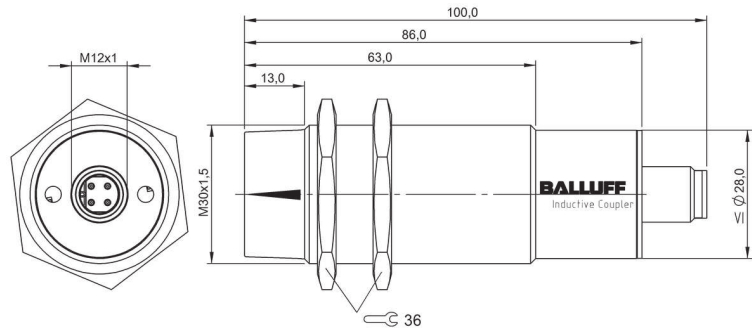
BIC000A



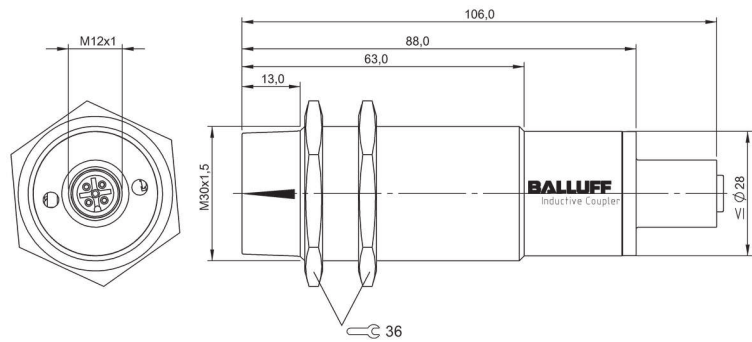
	BIC0007 BIC 1P0-P2A50-M30MI3-SM4A4A	BIC0008 BIC 2P0-P2A50-M30MI3-SM4A5A	
Function	Power only	Power only	
Transmission distance	0...5 mm	0...5 mm	
Component	Base	Remote	
Connection	Connector, M12x1, 4-pin	Connector, M12x1, 5-pin	
Rated operating voltage Ue	24 VDC	—	
Output voltage	—	24 VDC	
Rated output current	—	500 mA	
Housing material	Brass	Brass	
Dimension	Ø 30 x 100 mm	Ø 30 x 107.5 mm	
Ambient temperature	-5...55 °C	-5...55 °C	
Protection degree	IP67	IP67	
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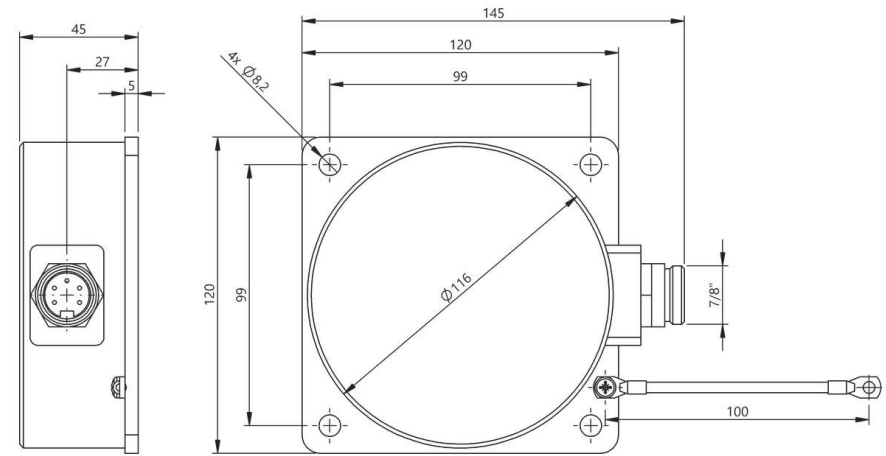
	BIC0075 BIC 1P0-P25A0-Q120AE-SA3A40	BIC0076 BIC 2P0-P25A0-Q120AE-SA3A40	BIC0073 BIC 1P0-P25A0-Q120AE-SA3A50	BIC0074 BIC 2P0-P25A0-Q120AE-SA3A50
Function	Power only	Power only	Power only	Power only
Transmission distance	0...4 mm	0...4 mm	0...4 mm	0...4 mm
Component	Base	Remote	Base	Remote
Connection	Connector, 7/8", 4-pole	Connector, 7/8", 4-pole	Connector, 7/8", 5-pole	Connector, 7/8", 5-pole
Rated operating voltage Ue	24 VDC	—	24 VDC	—
Output voltage	—	24 VDC	—	24 VDC
Rated output current	—	5 A	—	5 A
Housing material	Aluminum, black anodized	Aluminum, black anodized	Aluminum, black anodized	Aluminum, black anodized
Dimension	120 x 45 x 120 mm	120 x 45 x 120 mm	120 x 45 x 120 mm	120 x 45 x 120 mm
Ambient temperature	-10...50 °C	-10...50 °C	-10...50 °C	-10...50 °C
Protection degree	IP67	IP67	IP67	IP67
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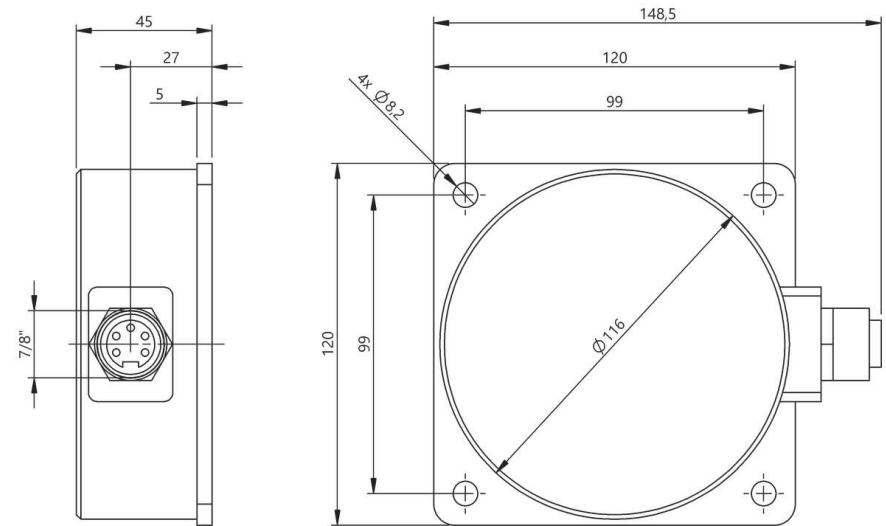
BIC0007



BIC0008



BIC0075, BIC0073



BIC0076, BIC0074