

Precise, flexible all-rounders

ULTRASONIC SENSORS

Whether for position detection, distance detection or detection of powdery and fluid media – our ultrasonic sensors are precise all-rounders. They measure fill levels, heights and sag without making contact as well as count and monitor the presence of objects. These universal sensors work regardless of color or surface composition and are unaffected by transparent objects with strong reflection. Fog, dust and impurities are also not a problem for them. Their high resolution and small blind zones guarantee the highest precision. Since they offer a generous detection range, they also work reliably at greater object distances.

Ultrasonic sensors from Balluff are available as switching or analog output types. Depending on the output signal you can either reliably detect and count objects or determine distances with high precision. These sensors therefore have versatile uses.

The most important benefits

- Contactless detection
- Reliable in critical environmental conditions such as fog, dust and impurities
- Irrespective of color, transparency, reflection properties and surface finish on the object
- Precise detection of even smaller objects
- Rectangular and cylindrical heads allow for greater freedom of design
- Can be used as normally open or normally closed – various output functions



PNP normally open/normally closed	BUS0065 BUS M12M1-PPX-02/015-S04G	BUS0066 BUS M12M1-PPX-05/024-S04G		
NPN normally open/normally closed	BUS0063 BUS M12M1-NPX-02/015-S04G	BUS0064 BUS M12M1-NPX-05/024-S04G		
PNP/NPN normally open/normally closed push-pull			BUS0020 BUS M18M1-GPXI-02/015-S92G	
Style	block style	Ø 12 mm	Ø 18 mm	
Interface	IO-Link 1.0	–	IO-Link 1.1	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 5-pin	
Housing material	PBT	Nickel-plated brass PBT	Brass PBT	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	600...8000 mm	40...350 mm	25...250 mm	
Switching frequency	3 Hz	20 Hz	25 Hz	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	9...30 VDC	10...30 VDC	10...30 VDC	
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	BUS0023 BUS W18M1-GPXI-02/015-S92G	BUS0029 BUS M18M1-GPXI-03/025-S92G	BUS002A BUS W18M1-GPXI-03/025-S92G	BUS004Z BUS M18M1-GPXI-07/035-S92G	BUS004Y BUS W18M1-GPXI-07/035-S92G
	Ø 18 mm	Ø 18 mm	Ø 18 mm	Ø 18 mm	Ø 18 mm
	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1	IO-Link 1.1
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Brass PBT	Brass PBT	Brass PBT	Brass PBT	Brass PBT
	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
	25...250 mm	30...350 mm	30...350 mm	65...600 mm	65...600 mm
	25 Hz	25 Hz	25 Hz	12 Hz	12 Hz
	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
	IP67	IP67	IP67	IP67	IP67
	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC	10...30 VDC
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PNP normally open/normally closed				
2 × PNP normally open/normally closed			BUS002P BUS M30E1-PWX-03/025-S92K	
PNP/NPN normally open/normally closed push-pull	BUS004P BUS M18M1-GPXI-12/100-S92G	BUS004N BUS W18M1-GPXI-12/100-S92G		
Style	Ø 18 mm	Ø 18 mm	Ø 30 mm	
Interface	IO-Link 1.1	IO-Link 1.1	—	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Housing material	Brass PBT	Brass PBT	Stainless steel PBT, TPU	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	120...1300 mm	120...1300 mm	30...350 mm	
Switching frequency	10 Hz	10 Hz	25 Hz	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	10...30 VDC	10...30 VDC	9...30 VDC	
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	BUS002T BUS M30E1-PPX-03/025-S92K	BUS0022 BUS M30M1-PPX-03/025-S92K		BUS005J BUS M30E1-PWX-07/035-S92K	BUS005H BUS M30M1-PWX-07/035-S92K
	BUS002R BUS M30M1-PWX-03/025-S92K				
	Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 30 mm
	—	—	—	—	—
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU
	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
	30...350 mm	30...350 mm	30...350 mm	65...600 mm	65...600 mm
	25 Hz	25 Hz	25 Hz	12 Hz	12 Hz
	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
	IP67	IP67	IP67	IP67	IP67
	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC
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PNP normally open/normally closed	BUS005T BUS M30E1-PPX-07/035-S92K	BUS005F BUS M30M1-PPX-07/035-S92K		
2 × PNP normally open/normally closed			BUS003H BUS M30E1-PWX-20/130-S92K	
Style	Ø 30 mm	Ø 30 mm	Ø 30 mm	
Interface	—	—	—	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Housing material	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	65...600 mm	65...600 mm	200...2000 mm	
Switching frequency	12 Hz	12 Hz	8 Hz	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	9...30 VDC	9...30 VDC	9...30 VDC	
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	BUS003C BUS M30M1-PWX-20/130-S92K	BUS003A BUS M30E1-PPX-20/130-S92K	BUS0039 BUS M30M1-PPX-20/130-S92K	BUS003U BUS M30E1-PWX-35/340-S92K	BUS003W BUS M30M1-PWX-35/340-S92K
	Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 47.5 mm	Ø 47.5 mm
	—	—	—	—	—
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU
	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
	200...2000 mm	200...2000 mm	200...2000 mm	350...5000 mm	350...5000 mm
	8 Hz	8 Hz	8 Hz	4 Hz	4 Hz
	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
	IP67	IP67	IP67	IP67	IP67
	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC
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PNP normally open/normally closed	BUS003R BUS M30E1-PPX-35/340-S92K	BUS003P BUS M30M1-PPX-35/340-S92K		
2 × PNP normally open/normally closed			BUS0040 BUS M30E1-PWX-60/600-S92K	
Style	Ø 47.5 mm	Ø 47.5 mm	Ø 65 mm	
Interface	—	—	—	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Housing material	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	350...5000 mm	350...5000 mm	600...8000 mm	
Switching frequency	4 Hz	4 Hz	3 Hz	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	9...30 VDC	9...30 VDC	9...30 VDC	
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	BUS003Z BUS M30M1-PWX-60/600-S92K	BUS0047 BUS M30E1-PPX-60/600-S92K	BUS0045 BUS M30M1-PPX-60/600-S92K	BUS0021 BUS R06K1-PPX-02/007-S75G	BUS004C BUS R06K1-PPX-02/015-S75G
	Ø 65 mm	Ø 65 mm	Ø 65 mm	block style	block style
	—	—	—	—	—
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin
	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	ABS	ABS
	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
	600...8000 mm	600...8000 mm	600...8000 mm	20...100 mm	20...250 mm
	3 Hz	3 Hz	3 Hz	250 Hz	25 Hz
	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	CE, EAC	CE, EAC
	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
	IP67	IP67	IP67	IP67	IP67
	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
	9...30 VDC	9...30 VDC	9...30 VDC	20...30 VDC	20...30 VDC
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PNP normally open/normally closed	BUS0049 BUS R06K1-PPX-02/015-S75G-F01	BUS004L BUS R06K1-PPX-05/024-S75G	BUS0057 BUS R06K1-PPX-03/025-S75G	
2 × PNP normally open/normally closed				
PNP/NPN normally open/normally closed push-pull				
Style	block style	block style	block style	
Interface	—	—	—	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	20...250 mm	50...350 mm	30...350 mm	
Switching frequency	100 Hz	25 Hz	25 Hz	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	20...30 VDC	20...30 VDC	20...30 VDC	
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BUS0059 BUS R06K1-PPX-12/070-S75G					
	BUS006F BUS Q62K1-PWX-35/340-S92K			BUS006H BUS Q62K1-PWX-60/600-S92K	
		BUS006C BUS Q62K1-GPXI-35/340-S92K			BUS006E BUS Q62K1-GPXI-60/600-S92K
block style	block style	block style	block style	block style	block style
—	—	IO-Link 1.0	—	—	IO-Link 1.0
Connector, M8x1 connector, 4-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
ABS	PBT	PBT	PBT	PBT	PBT
PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
120...1000 mm	350...5000 mm	350...5000 mm	600...8000 mm	600...8000 mm	600...8000 mm
14 Hz	4 Hz	4 Hz	3 Hz	3 Hz	3 Hz
CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
IP67	IP67	IP67	IP67	IP67	IP67
± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
20...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC
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Sensors

RFID

Machine Vision and Optical Identification

Human Machine Interfaces

Safety

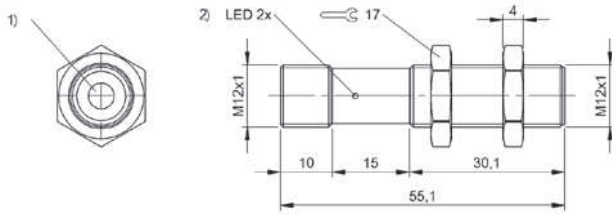
Industrial Networking

Software and System Solutions

Power Supply

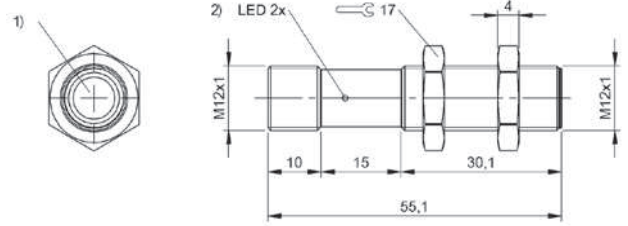
Connectivity

Accessories



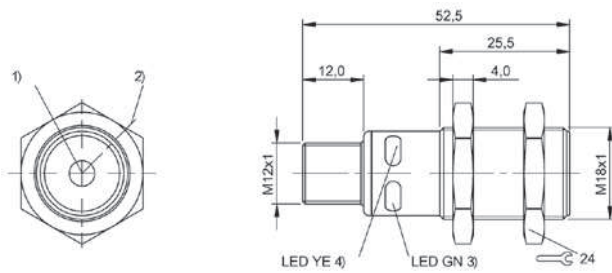
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0063, BUS0065



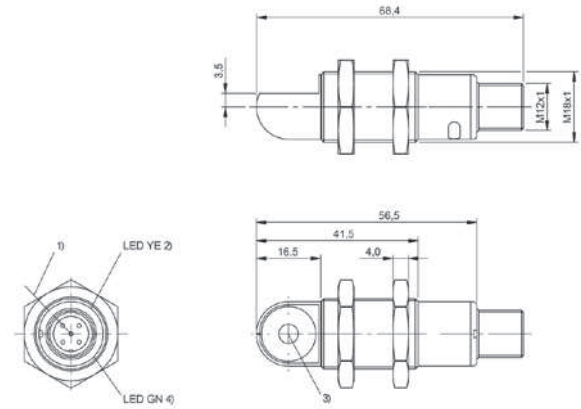
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0064, BUS0066



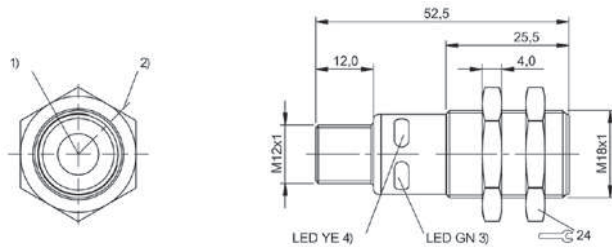
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0020



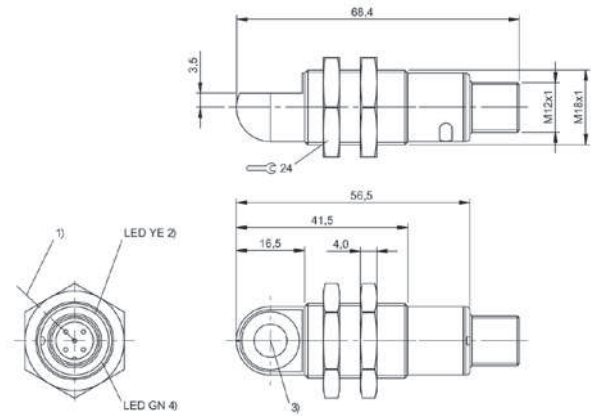
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS0023



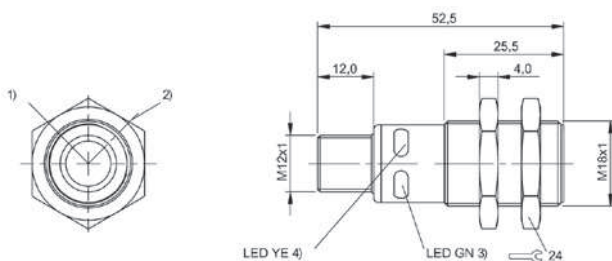
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0029



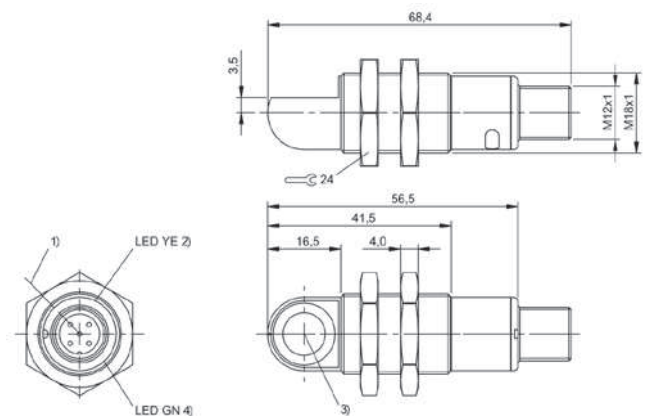
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS002A



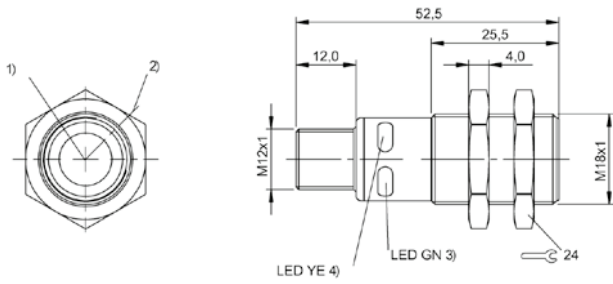
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS004Z



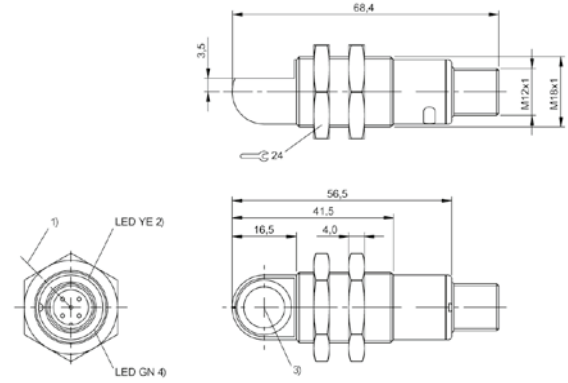
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS004Y



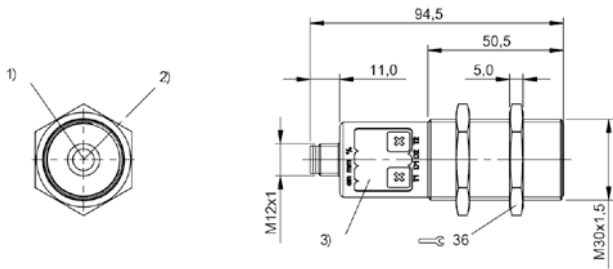
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) LED function indicator, 4) Output function

BUS004P



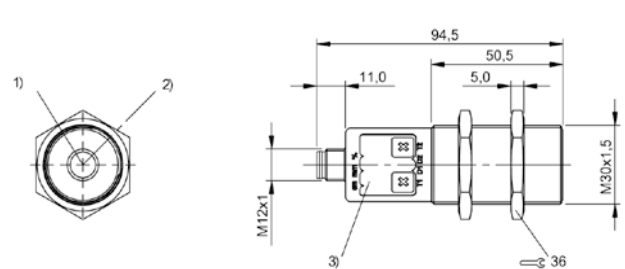
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS004N



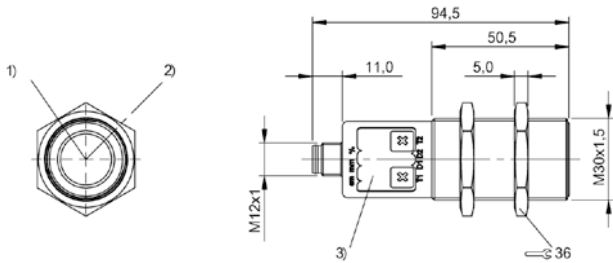
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS002P, BUS002R, BUS002T, BUS002Z



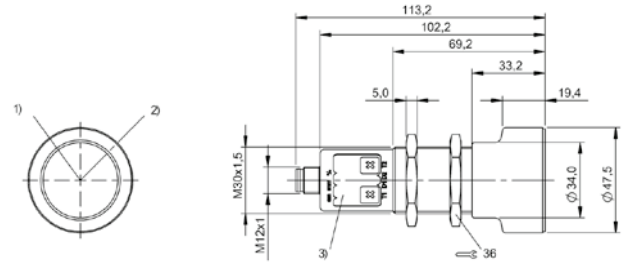
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS005J, BUS005H, BUS005T, BUS005F



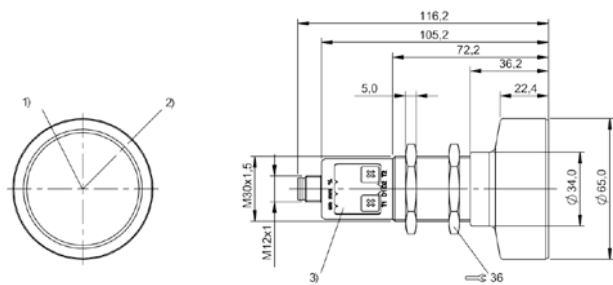
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS003H, BUS003C, BUS003A, BUS0039



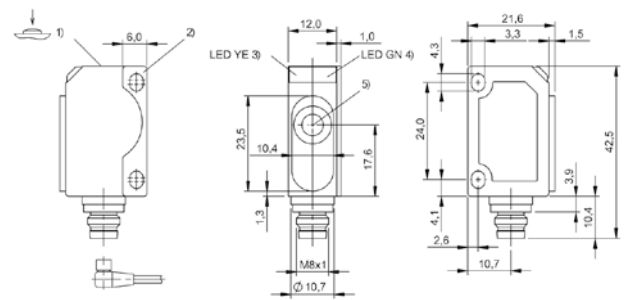
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS003U, BUS003W, BUS003R, BUS003P



1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

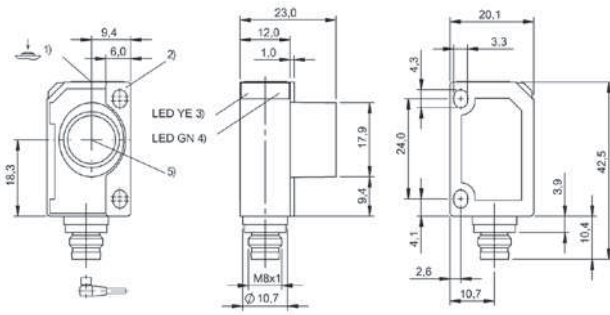
BUS0040, BUS003Z, BUS0047, BUS0045



1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

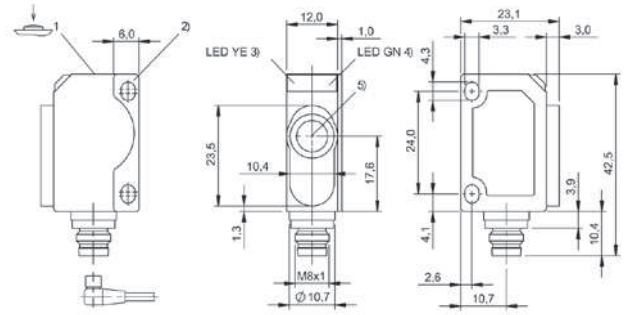
BUS0021, BUS004C, BUS0049

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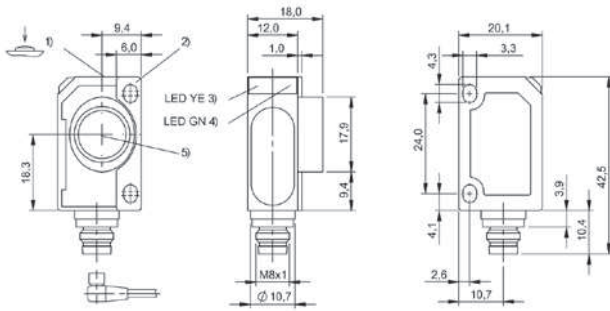
- 1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

BUS0057



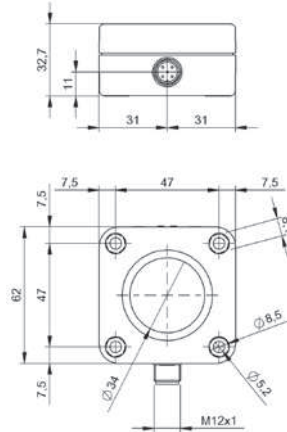
- 1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

BUS004L



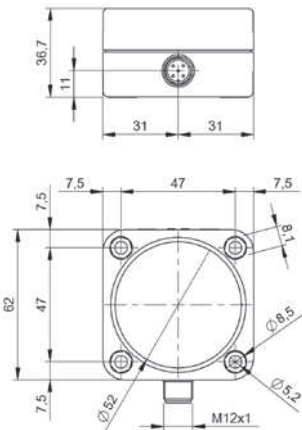
- 1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

BUS0059



- 1) Ultrasonic transducer, 2) Display and control panel

BUS006F, BUS006C



- 1) Ultrasonic transducer, 2) Display and control panel

BUS006H, BUS006E



Analog, voltage 0...10 V, linear rising/falling	BUS0067 BUS M12M1-XA-02/015-S04G	BUS0068 BUS M12M1-XA-05/024-S04G	BUS0026 BUS M18M1-XA-02/015-S92G	
Analog, current 4...20 mA, linear rising/falling	BUS0069 BUS M12M1-XB-02/015-S04G	BUS006A BUS M12M1-XB-05/024-S04G	BUS0025 BUS M18M1-XB-02/015-S92G	
Style	Ø 12 mm	Ø 12 mm	Ø 18 mm	
Switching output	—	—	—	
Connection	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 4-pin	Connector, M12x1 connector, 5-pin	
Housing material	Nickel-plated brass PBT	Nickel-plated brass PBT	Nickel-plated brass PBT	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	20...250 mm	40...350 mm	25...250 mm	
Switching frequency	—	—	—	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	15...30 VDC	15...30 VDC	15...30 VDC	
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BUS0028 BUS W18M1-XA-02/015-S92G	BUS0024 BUS M18M1-XA-03/025-S92G	BUS0050 BUS W18M1-XA-03/025-S92G	BUS004T BUS M18M1-XA-07/035-S92G	BUS004R BUS W18M1-XA-07/035-S92G
BUS0027 BUS W18M1-XB-02/015-S92G	BUS002C BUS M18M1-XB-03/025-S92G	BUS002E BUS W18M1-XB-03/025-S92G	BUS004W BUS M18M1-XB-07/035-S92G	BUS004U BUS W18M1-XB-07/035-S92G
Ø 18 mm	Ø 18 mm	Ø 18 mm	Ø 18 mm	Ø 18 mm
—	—	—	—	—
Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
Brass PBT	Brass PBT	Brass PBT	Brass PBT	Brass PBT
PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
25...250 mm	30...350 mm	30...350 mm	65...600 mm	65...600 mm
—	—	—	—	—
cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
IP67	IP67	IP67	IP67	IP67
± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC	15...30 VDC
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Analog, voltage 0...10 V, linear rising/falling	BUS0052 BUS M18M1-XA-12/100-S92G	BUS0051 BUS W18M1-XA-12/100-S92G		
Analog, current 4...20 mA, linear rising/falling	BUS004M BUS M18M1-XB-12/100-S92G	BUS0053 BUS W18M1-XB-12/100-S92G		
Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling			BUS002M BUS M30E1-XC-03/025-S92K	
Style	Ø 18 mm	Ø 18 mm	Ø 30 mm	
Switching output	—	—	—	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Housing material	Brass PBT	Brass PBT	Stainless steel PBT, TPU	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	120...1300 mm	120...1300 mm	30...350 mm	
Switching frequency	—	—	—	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	15...30 VDC	15...30 VDC	9...30 VDC	
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	BUS002N BUS M30M1-XC-03/025-S92K	BUS002K BUS M30E1-PPC-03/025-S92K	BUS002L BUS M30M1-PPC-03/025-S92K	BUS005L BUS M30E1-XC-07/035-S92K	BUS005K BUS M30M1-XC-07/035-S92K
	Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 30 mm
	—	PNP normally open/normally closed (NO/NC)	PNP normally open/normally closed (NO/NC)	—	—
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU
	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
	30...350 mm	30...350 mm	30...350 mm	65...600 mm	65...600 mm
	—	25 Hz	25 Hz	—	—
	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
	IP67	IP67	IP67	IP67	IP67
	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC
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Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling	BUS005N BUS M30E1-PPC-07/035-S92K	BUS005M BUS M30M1-PPC-07/035-S92K	BUS003E BUS M30E1-XC-20/130-S92K	
Style	Ø 30 mm	Ø 30 mm	Ø 30 mm	
Switching output	PNP normally open/normally closed (NO/NC)	PNP normally open/normally closed (NO/NC)	—	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Housing material	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	65...600 mm	65...600 mm	200...2000 mm	
Switching frequency	12 Hz	12 Hz	—	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	9...30 VDC	9...30 VDC	9...30 VDC	
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BUS003F BUS M30M1-XC-20/130-S92K	BUS0037 BUS M30E1-PPC-20/130-S92K	BUS0038 BUS M30M1-PPC-20/130-S92K	BUS003N BUS M30M1-PWC-20/130-S92K	BUS003M BUS M30E1-XC-35/340-S92K
Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 30 mm	Ø 47.5 mm
—	PNP normally open/normally closed (NO/NC)	PNP normally open/normally closed (NO/NC)	2x PNP normally open/normally closed (NO/NC)	—
Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU
PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
200...2000 mm	200...2000 mm	200...2000 mm	200...2000 mm	350...5000 mm
—	8 Hz	8 Hz	8 Hz	—
cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
IP67	IP67	IP67	IP67	IP67
± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC
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Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling	BUS003T BUS M30M1-XC-35/340-S92K	BUS003K BUS M30E1-PPC-35/340-S92K	BUS003L BUS M30M1-PPC-35/340-S92K	
Style	Ø 47.5 mm	Ø 47.5 mm	Ø 47.5 mm	
Switching output	—	PNP normally open/normally closed (NO/NC)	PNP normally open/normally closed (NO/NC)	
Connection	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	
Housing material	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	350...5000 mm	350...5000 mm	350...5000 mm	
Switching frequency	—	4 Hz	4 Hz	
Approval/Conformity	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	9...30 VDC	9...30 VDC	9...30 VDC	
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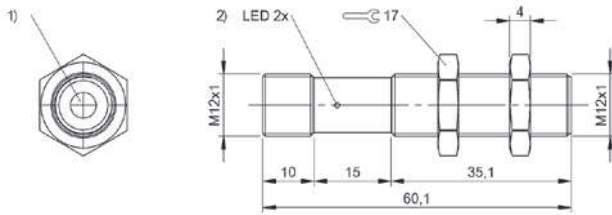
BUS0044 BUS M30M1-PWC-35/340-S92K	BUS0042 BUS M30E1-XC-60/600-S92K	BUS0041 BUS M30M1-XC-60/600-S92K	BUS003Y BUS M30E1-PPC-60/600-S92K	BUS0043 BUS M30M1-PPC-60/600-S92K
Ø 47.5 mm	Ø 65 mm	Ø 65 mm	Ø 65 mm	Ø 65 mm
2x PNP normally open/ normally closed (NO/NC)	—	—	PNP normally open/nor- mally closed (NO/NC)	PNP normally open/nor- mally closed (NO/NC)
Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU
PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass
350...5000 mm	600...8000 mm	600...8000 mm	600...8000 mm	600...8000 mm
4 Hz	—	—	3 Hz	3 Hz
cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC
-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C	-25...70 °C
IP67	IP67	IP67	IP67	IP67
± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS
9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC
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Analog, voltage 0...10 V, linear rising/falling	BUS004K BUS R06K1-XA-02/015-S75G	BUS0056 BUS R06K1-XA-05/024-S75G	BUS005E BUS R06K1-XA-12/070-S75G	
Analog, current 4...20 mA, linear rising/falling	BUS004J BUS R06K1-XB-02/015-S75G	BUS004F BUS R06K1-XB-05/024-S75G	BUS005C BUS R06K1-XB-12/070-S75G	
Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling				
Style	block style	block style	block style	
Switching output	—	—	—	
Connection	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	
Housing material	ABS	ABS	ABS	
Material sensing surface	PU foam epoxy resin glass	PU foam epoxy resin glass	PU foam epoxy resin glass	
Range	20...250 mm	50...350 mm	120...1000 mm	
Switching frequency	—	—	—	
Approval/Conformity	CE, EAC	CE, EAC	CE, EAC	
Ambient temperature	-25...70 °C	-25...70 °C	-25...70 °C	
Protection degree	IP67	IP67	IP67	
Repeat accuracy	± 0.15 %FS	± 0.15 %FS	± 0.15 %FS	
Operating voltage U _b	20...30 VDC	20...30 VDC	20...30 VDC	
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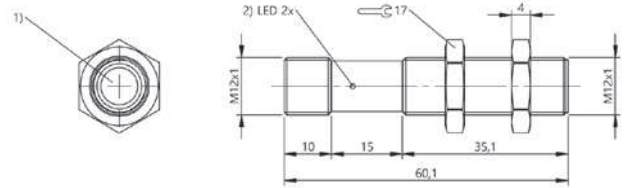


	BUS006J BUS Q62K1-XC-35/340-S92K	BUS006K BUS Q62K1-XC-60/600-S92K			
	block style	block style			
	—	—			
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin			
	PBT	PBT			
	PU foam epoxy resin glass	PU foam epoxy resin glass			
	350...5000 mm	600...8000 mm			
	—	—			
	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC			
	-25...70 °C	-25...70 °C			
	IP67	IP67			
	± 0.15 %FS	± 0.15 %FS			
	9...30 VDC	9...30 VDC			
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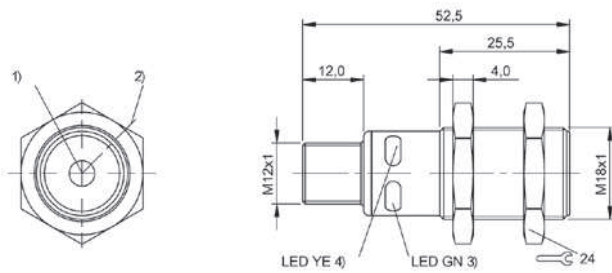
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0067, BUS0069



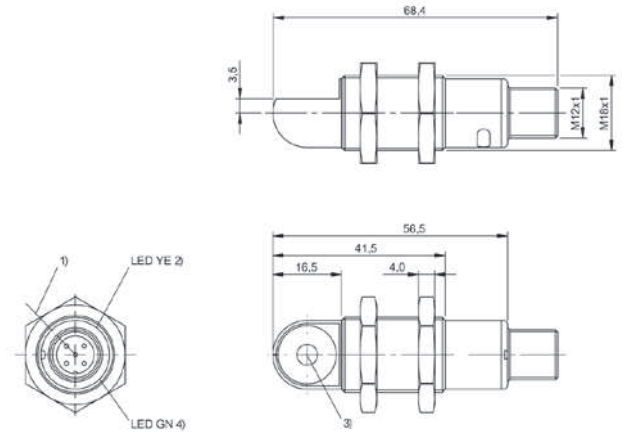
1) Ultrasonic transducer axis, 2) Function indicator

BUS0068, BUS006A



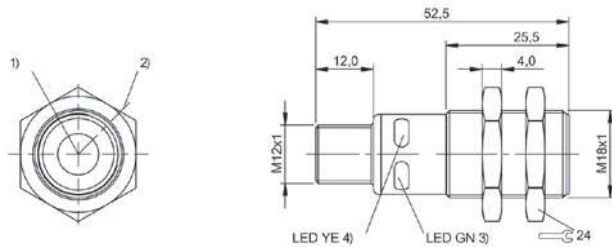
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0026, BUS0025



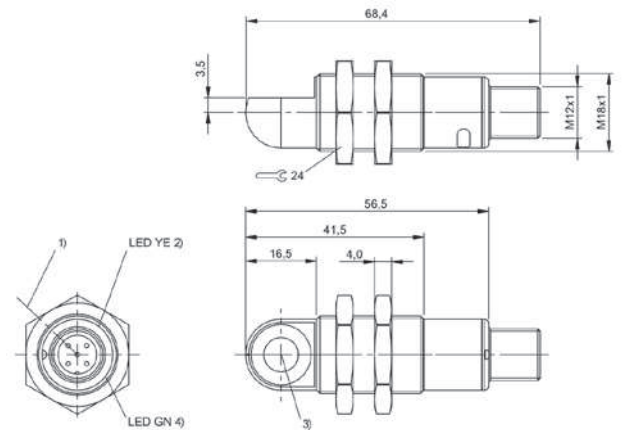
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS0028, BUS0027



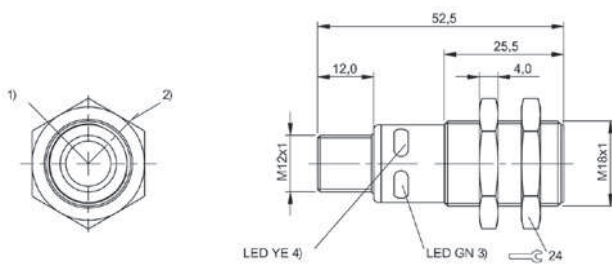
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS0024, BUS002C



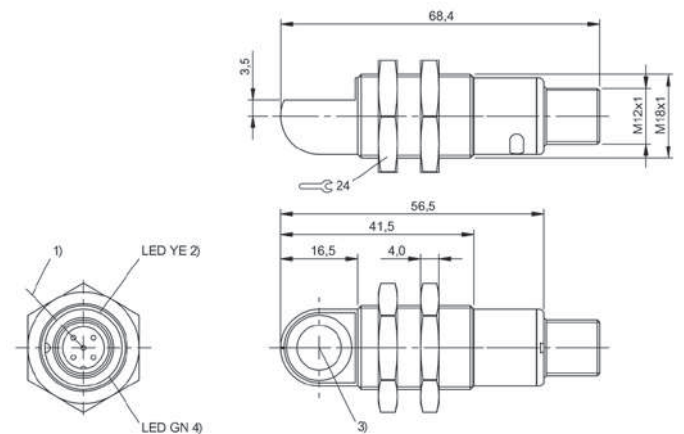
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS0050, BUS002E



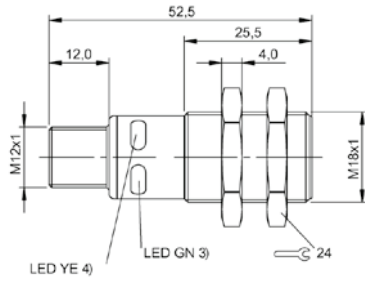
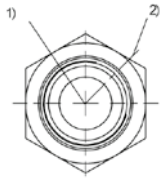
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

BUS004T, BUS004W



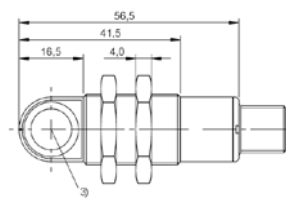
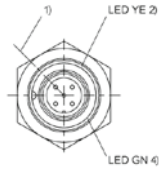
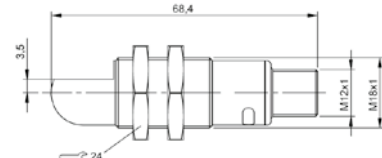
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS004R, BUS004U



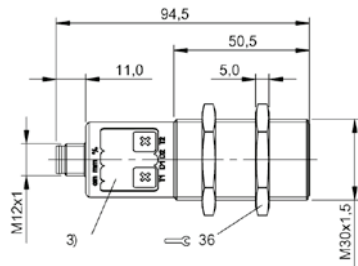
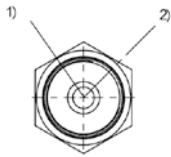
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) LED function indicator, 4) Output function

BUS0052, BUS004M



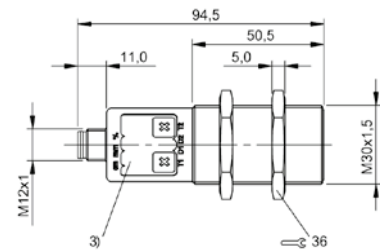
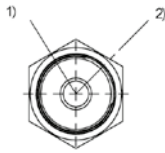
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

BUS0051, BUS0053



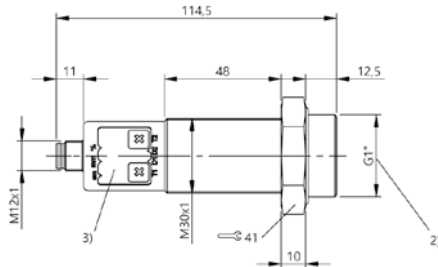
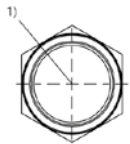
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS002M, BUS002N, BUS002K, BUS002L



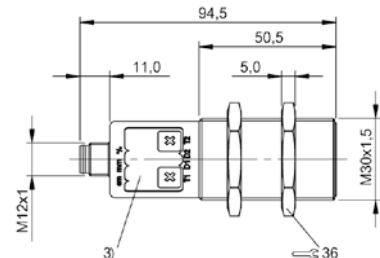
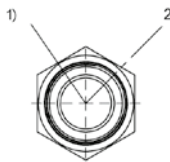
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS005L, BUS005K, BUS005N, BUS005M



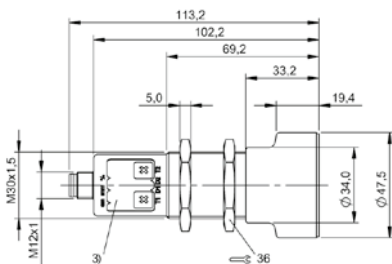
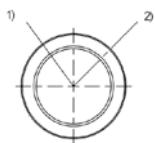
1) Ultrasonic transducer, 2) Process connection, 3) Display and control panel

BUS005Y, BUS005W



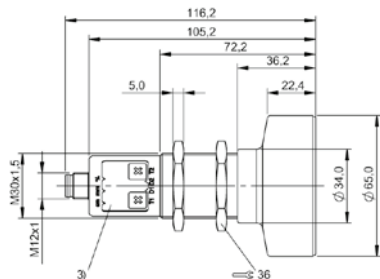
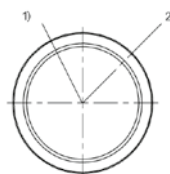
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

BUS003E, BUS003F, BUS003N, BUS0037, BUS0038



1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

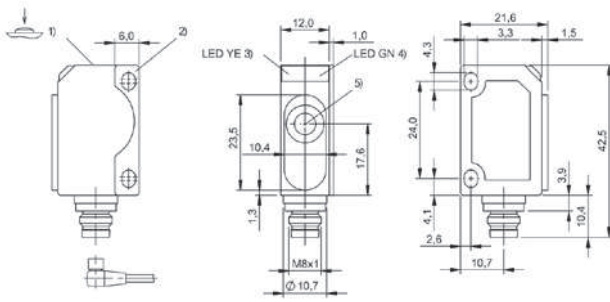
BUS003M, BUS003T, BUS0044, BUS003K, BUS003L



1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel

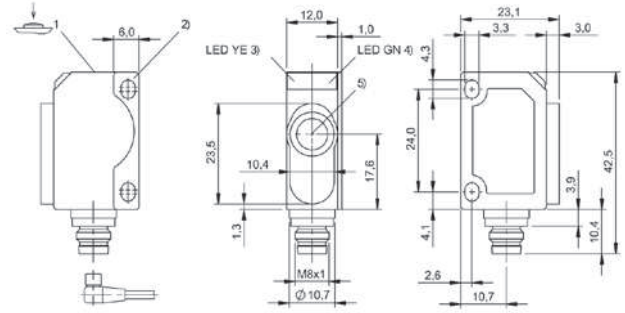
BUS0042, BUS0041, BUS003Y, BUS0043

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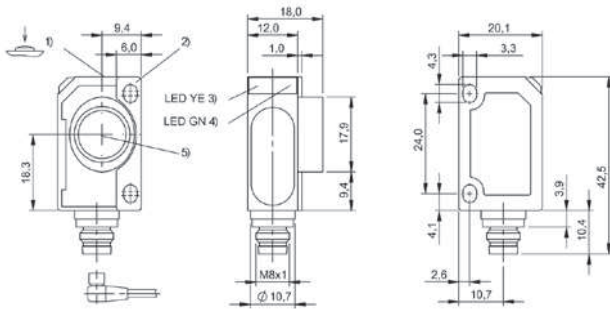
- 1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

BUS004K, BUS004J



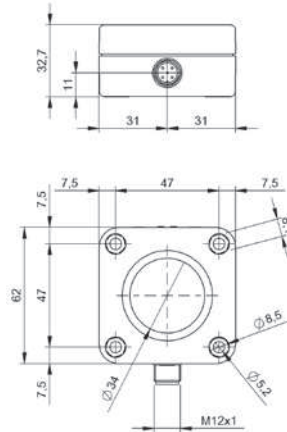
- 1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

BUS0056, BUS004F



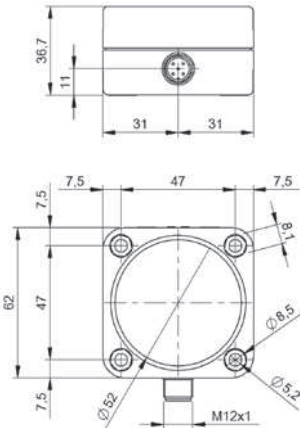
- 1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

BUS005E, BUS005C



- 1) Ultrasonic transducer, 2) Display and control panel

BUS006J



- 1) Ultrasonic transducer, 2) Display and control panel

BUS006K



PNP normally open/normally closed	BUS005Y BUS M30E2-PPC-09/035-S92K-G1	
2 × PNP normally open/normally closed		
Style	Ø 47 mm	
Process connection	G 1"	
Analog output	Analog, voltage/Analog, current 0...10 V/4...20 mA linear rising/falling	
Connection	Connector, M12x1 connector, 5-pin	
Housing material	Stainless steel (1.4571) PBT, TPU	
Material sensing surface	PTFE	
Range	85...1500 mm	
Switching frequency	9 Hz	
Approval/Conformity	CE	
Ambient temperature	-25...70 °C	
Protection degree	IP67	
Repeat accuracy	± 0.15 %FS	
Pressure rating max.	6 bar	
Operating voltage U _b	9...30 VDC	
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	BUS005U BUS M30E2-PWX-20/130-S92K-G1	BUS005W BUS M30E2-PPC-20/130-S92K-G1
	Ø 47 mm	Ø 47 mm
	G 1"	G 1"
	—	Analog, voltage/Analog, current 0...10 V/4...20 mA linear rising/falling
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin
	Stainless steel (1.4571) PBT, TPU	Stainless steel (1.4571) PBT, TPU
	PTFE	PTFE
	200...5000 mm	200...5000 mm
	5 Hz	5 Hz
	CE	CE
	-25...70 °C	-25...70 °C
	IP67	IP67
	± 0.15 %FS	± 0.15 %FS
	6 bar	6 bar
	9...30 VDC	9...30 VDC
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Human Machine
Interfaces

Safety

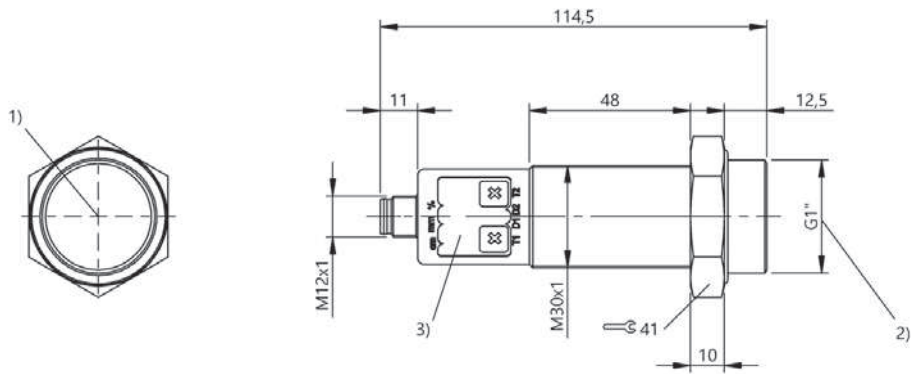
Industrial Networking

Software and
System Solutions

Power Supply

Connectivity

Accessories



1) Ultrasonic transducer, 2) Process connection, 3) Display and control panel

BUS005Y, BUS005U, BUS005W