



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	<b>BUS0065</b> BUS M12M1-PPX-02/015-S04G	<b>BUS0066</b> BUS M12M1-PPX-05/024-S04G		
NPN normally open/normally closed	<b>BUS0063</b> BUS M12M1-NPX-02/015-S04G	<b>BUS0064</b> BUS M12M1-NPX-05/024-S04G		
PNP/NPN normally open/normally closed push-pull			<b>BUS0020</b> 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 <sub>b</sub>	9...30 VDC	10...30 VDC	10...30 VDC	
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PNP normally open/normally closed				
2 × PNP normally open/normally closed			<b>BUS002P</b> BUS M30E1-PWX-03/025-S92K	
PNP/NPN normally open/normally closed push-pull	<b>BUS004P</b> BUS M18M1-GPXI-12/100-S92G	<b>BUS004N</b> 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 <sub>b</sub>	10...30 VDC	10...30 VDC	9...30 VDC	
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PNP normally open/normally closed	<b>BUS005T</b> BUS M30E1-PPX-07/035-S92K	<b>BUS005F</b> BUS M30M1-PPX-07/035-S92K		
2 × PNP normally open/normally closed			<b>BUS003H</b> 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 <sub>b</sub>	9...30 VDC	9...30 VDC	9...30 VDC	
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	<b>BUS003A</b> BUS M30E1-PPX-20/130-S92K	<b>BUS0039</b> BUS M30M1-PPX-20/130-S92K		
<b>BUS003C</b> BUS M30M1-PWX-20/130-S92K			<b>BUS003U</b> BUS M30E1-PWX-35/340-S92K	<b>BUS003W</b> 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	<b>BUS003R</b> BUS M30E1-PPX-35/340-S92K	<b>BUS003P</b> BUS M30M1-PPX-35/340-S92K		
2 × PNP normally open/normally closed			<b>BUS0040</b> 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 <sub>b</sub>	9...30 VDC	9...30 VDC	9...30 VDC	
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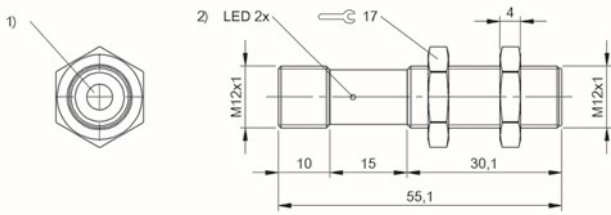
	<b>BUS003Z</b> BUS M30M1-PWX-60/600-S92K	<b>BUS0047</b> BUS M30E1-PPX-60/600-S92K	<b>BUS0045</b> BUS M30M1-PPX-60/600-S92K	<b>BUS0021</b> BUS R06K1-PPX-02/007-S75G	<b>BUS004C</b> BUS R06K1-PPX-02/015-S75G
Ø 65 mm	Ø 65 mm	Ø 65 mm	Ø 65 mm	block style	block style
—	—	—	—	—	—
Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin	Connector, M8x1 connector, 4-pin
Brass PBT, TPU	Stainless steel PBT, TPU	Brass PBT, TPU	ABS	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	PU foam epoxy resin glass
600...8000 mm	600...8000 mm	600...8000 mm	20...100 mm	20...250 mm	20...250 mm
3 Hz	3 Hz	3 Hz	250 Hz	25 Hz	25 Hz
cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	cULus LISTED, CE, EAC	CE, EAC	CE, EAC	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
9...30 VDC	9...30 VDC	9...30 VDC	20...30 VDC	20...30 VDC	20...30 VDC
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PNP normally open/normally closed	<b>BUS0049</b> BUS R06K1-PPX-02/015-S75G-F01	<b>BUS004L</b> BUS R06K1-PPX-05/024-S75G	<b>BUS0057</b> 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 <sub>b</sub>	20...30 VDC	20...30 VDC	20...30 VDC	
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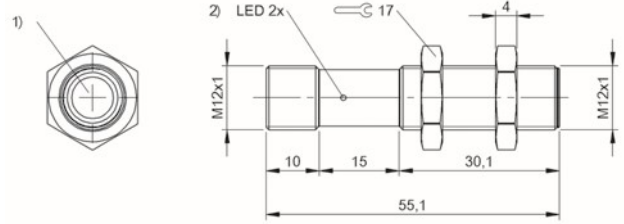


<b>BUS0059</b> BUS R06K1-PPX-12/070-S75G					
	<b>BUS006F</b> BUS Q62K1-PWX-35/340-S92K		<b>BUS006H</b> BUS Q62K1-PWX-60/600-S92K		
		<b>BUS006C</b> BUS Q62K1-GPXI-35/340-S92K		<b>BUS006E</b> BUS Q62K1-GPXI-60/600-S92K	
block style	block style	block style	block style	block style	
—	—	IO-Link 1.0	—	IO-Link 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	
ABS	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	
120...1000 mm	350...5000 mm	350...5000 mm	600...8000 mm	600...8000 mm	
14 Hz	4 Hz	4 Hz	3 Hz	3 Hz	
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	
20...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	9...30 VDC	
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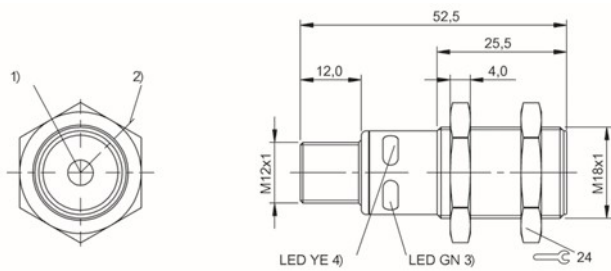
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0063, BUS0065**



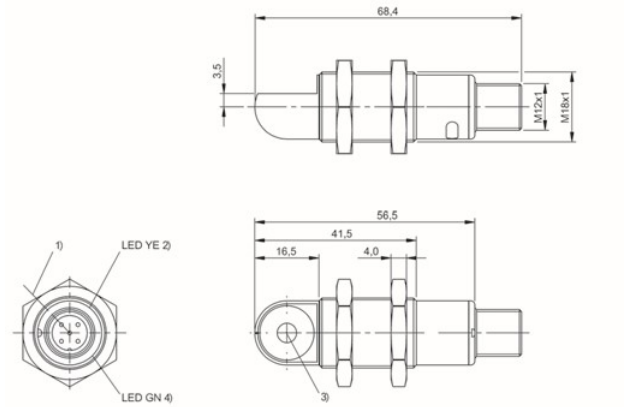
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0064, BUS0066**



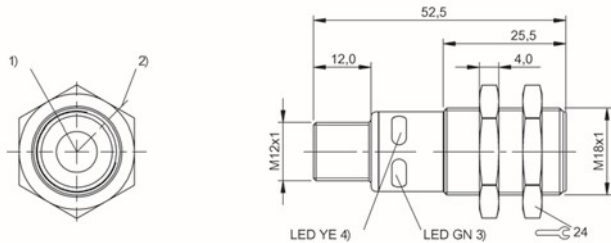
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0020**



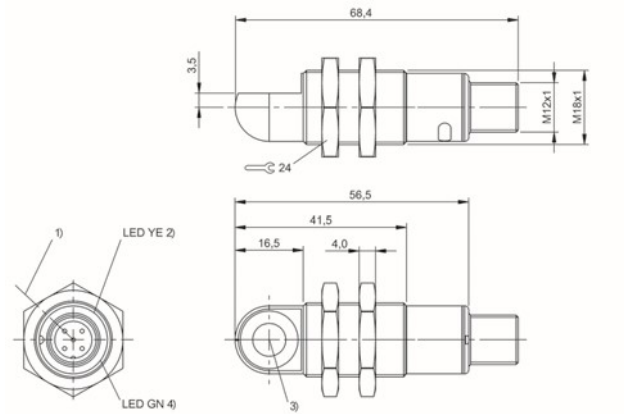
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

**BUS0023**



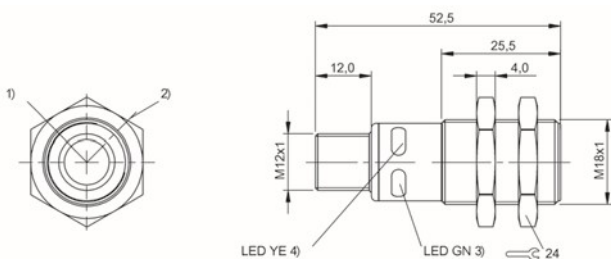
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0029**



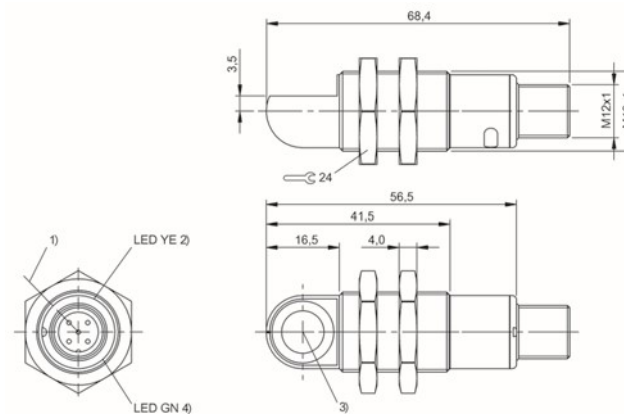
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

**BUS002A**



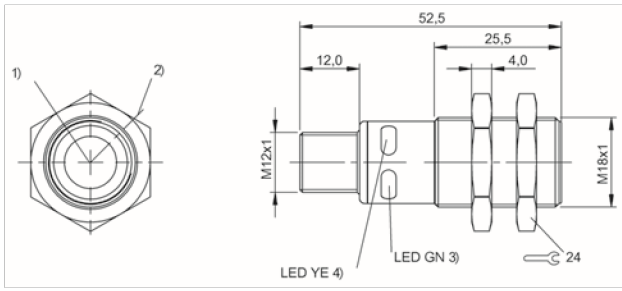
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS004Z**

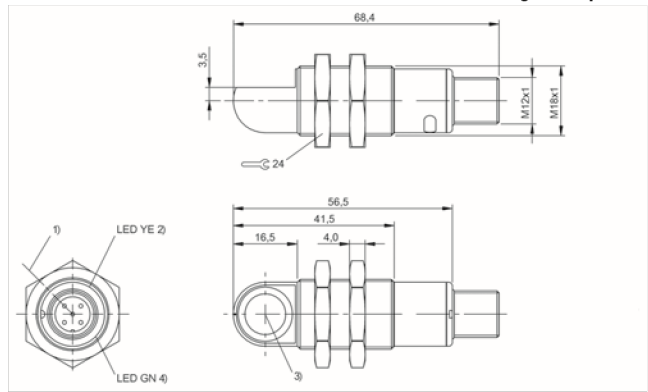


1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

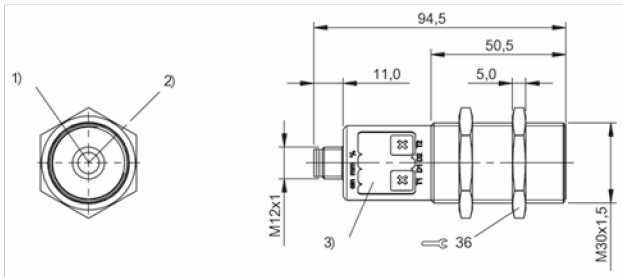
**BUS004Y**



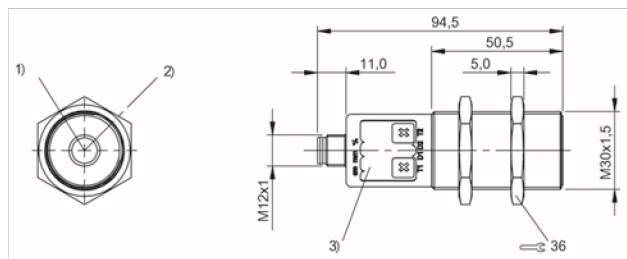
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) LED function indicator, 4) Output function  
**BUS004P**



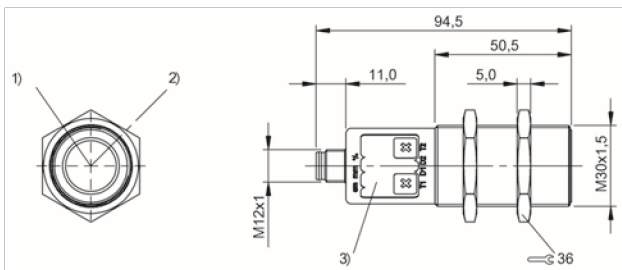
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage  
**BUS004N**



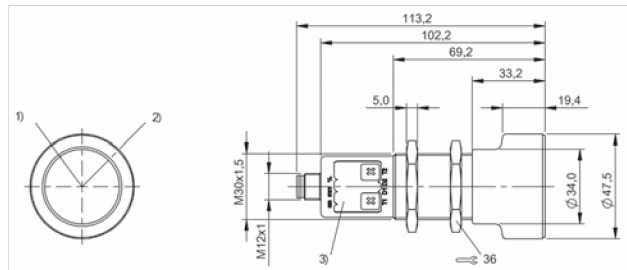
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS002P, BUS002R, BUS002T, BUS002Z**



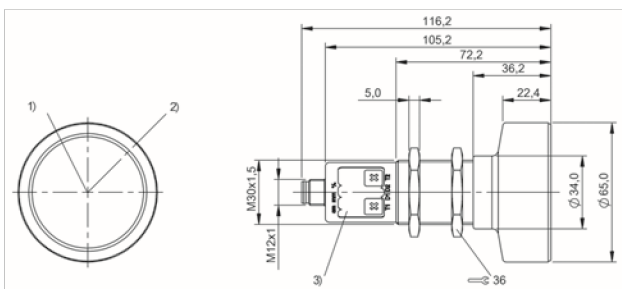
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS005J, BUS005H, BUS005T, BUS005F**



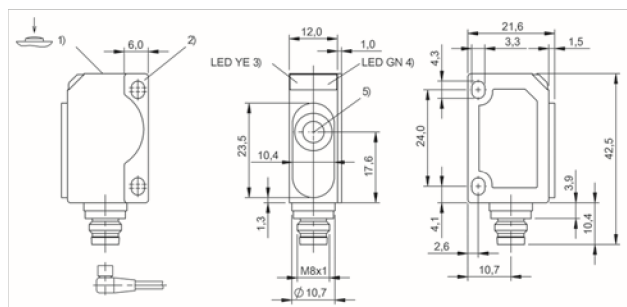
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS003H, BUS003C, BUS003A, BUS0039**



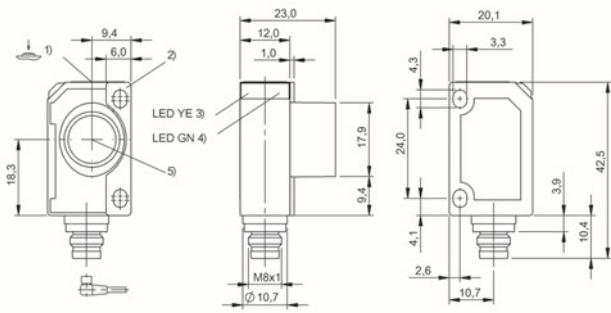
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS003U, BUS003W, BUS003R, BUS003P**



1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS0040, BUS003Z, BUS0047, BUS0045**

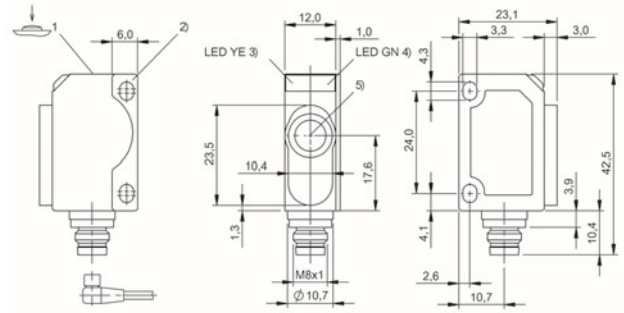


1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis  
**BUS0021, BUS004C, BUS0049**



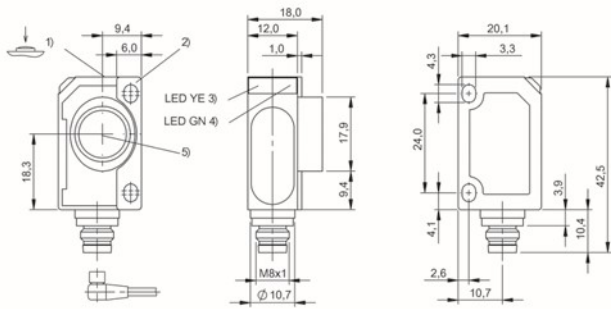
1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

**BUS0057**



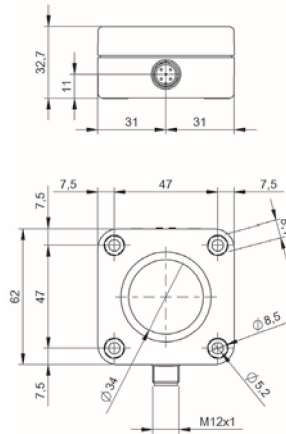
1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

**BUS004L**



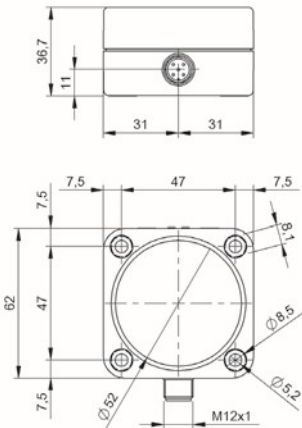
1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

**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	<b>BUS0067</b> BUS M12M1-XA-02/015-S04G	<b>BUS0068</b> BUS M12M1-XA-05/024-S04G	<b>BUS0026</b> BUS M18M1-XA-02/015-S92G	
Analog, current 4...20 mA, linear rising/falling	<b>BUS0069</b> BUS M12M1-XB-02/015-S04G	<b>BUS006A</b> BUS M12M1-XB-05/024-S04G	<b>BUS0025</b> 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 <sub>b</sub>	15...30 VDC	15...30 VDC	15...30 VDC	
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<b>BUS0028</b> BUS W18M1-XA-02/015-S92G	<b>BUS0024</b> BUS M18M1-XA-03/025-S92G	<b>BUS0050</b> BUS W18M1-XA-03/025-S92G	<b>BUS004T</b> BUS M18M1-XA-07/035-S92G	<b>BUS004R</b> BUS W18M1-XA-07/035-S92G
<b>BUS0027</b> BUS W18M1-XB-02/015-S92G	<b>BUS002C</b> BUS M18M1-XB-03/025-S92G	<b>BUS002E</b> BUS W18M1-XB-03/025-S92G	<b>BUS004W</b> BUS M18M1-XB-07/035-S92G	<b>BUS004U</b> 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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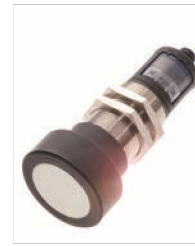


Analog, voltage 0...10 V, linear rising/falling	<b>BUS0052</b> BUS M18M1-XA-12/100-S92G	<b>BUS0051</b> BUS W18M1-XA-12/100-S92G		
Analog, current 4...20 mA, linear rising/falling	<b>BUS004M</b> BUS M18M1-XB-12/100-S92G	<b>BUS0053</b> BUS W18M1-XB-12/100-S92G		
Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling			<b>BUS002M</b> 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 <sub>b</sub>	15...30 VDC	15...30 VDC	9...30 VDC	
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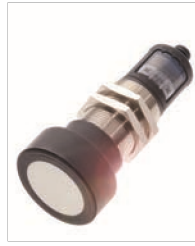




Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling	<b>BUS005N</b> BUS M30E1-PPC-07/035-S92K	<b>BUS005M</b> BUS M30M1-PPC-07/035-S92K	<b>BUS003E</b> BUS M30E1-XC-20/130-S92K	
Style	Ø 30 mm	Ø 30 mm	Ø 30 mm	
Switching output	PNP normally open/normally closed (NO/NC)	PNP normally open/normally 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 <sub>b</sub>	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/nor- mally closed (NO/NC)	PNP normally open/nor- mally 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
Page 39	Page 39	Page 39	Page 39	Page 39



Analog, voltage/analog, current 0...10 V/4...20 mA, linear rising/falling	<b>BUS003T</b> BUS M30M1-XC-35/340-S92K	<b>BUS003K</b> BUS M30E1-PPC-35/340-S92K	<b>BUS003L</b> 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 <sub>b</sub>	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
Page 39	Page 39	Page 39	Page 39	Page 39

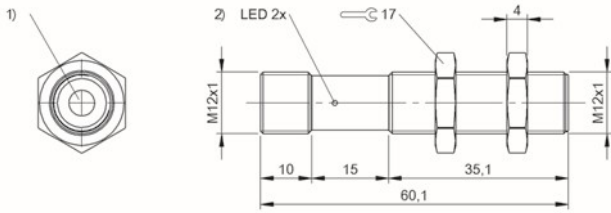




Analog, voltage 0...10 V, linear rising/falling	<b>BUS004K</b> BUS R06K1-XA-02/015-S75G	<b>BUS0056</b> BUS R06K1-XA-05/024-S75G	<b>BUS005E</b> BUS R06K1-XA-12/070-S75G	
Analog, current 4...20 mA, linear rising/falling	<b>BUS004J</b> BUS R06K1-XB-02/015-S75G	<b>BUS004F</b> BUS R06K1-XB-05/024-S75G	<b>BUS005C</b> 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 <sub>b</sub>	20...30 VDC	20...30 VDC	20...30 VDC	
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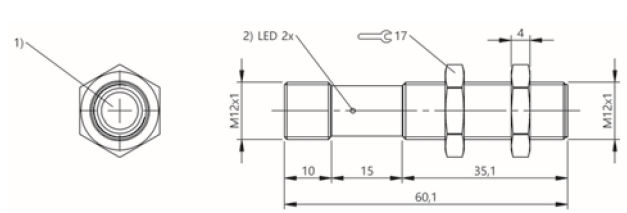


	<b>BUS006J</b> BUS Q62K1-XC-35/340-S92K	<b>BUS006K</b> BUS Q62K1-XC-60/600-S92K			
	block style	block style			
	—	—			
	Connector, M12x1 connector, 5-pin	Connector, M12x1 connector, 5-pin			
	PBT	PBT			
	PU foam epoxy resin glass	PU foam epoxy resin glass			
	350...5000 mm	600...8000 mm			
	—	—			
	cULus 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			
	Page 40	Page 40			



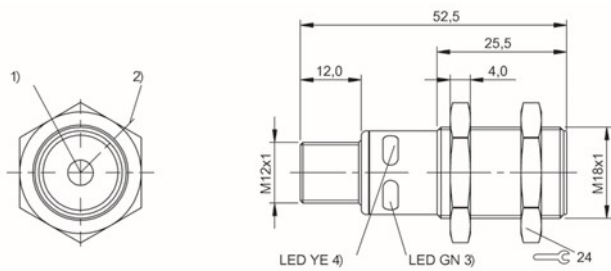
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0067, BUS0069**



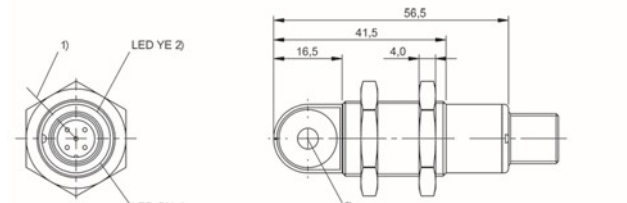
1) Ultrasonic transducer axis, 2) Function indicator

**BUS0068, BUS006A**



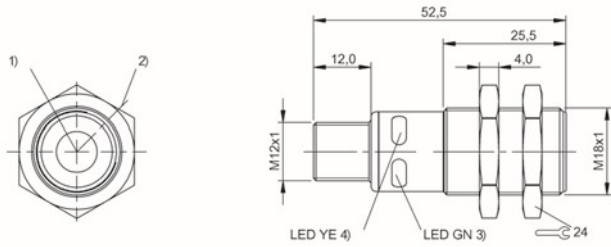
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0026, BUS0025**



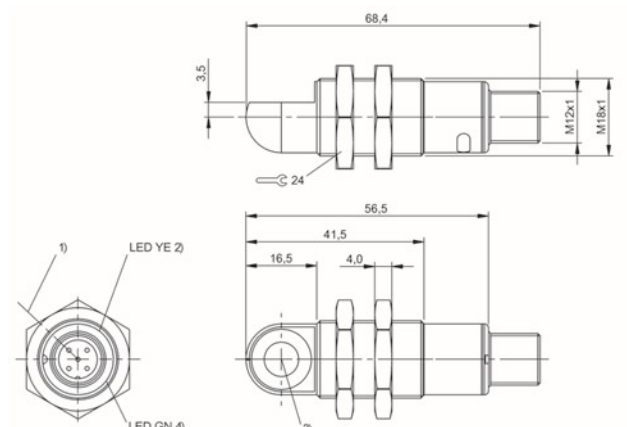
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

**BUS0028, BUS0027**



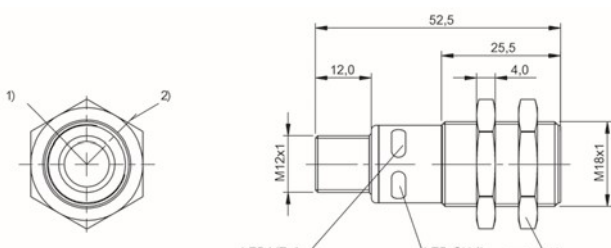
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS0024, BUS002C**



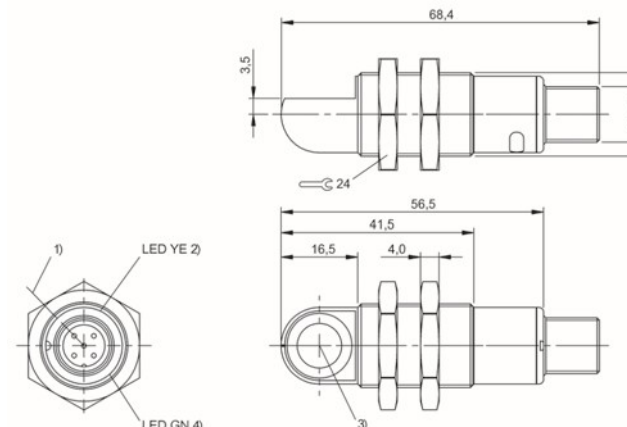
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

**BUS0050, BUS002E**



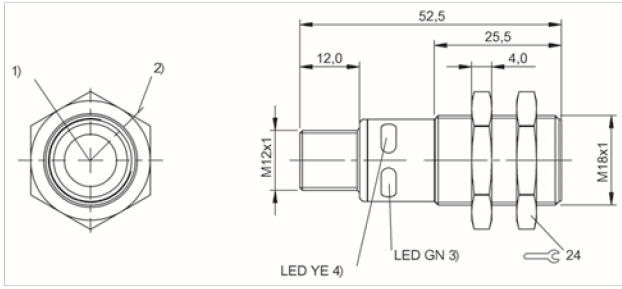
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Operating voltage, 4) Output function

**BUS004T, BUS004W**

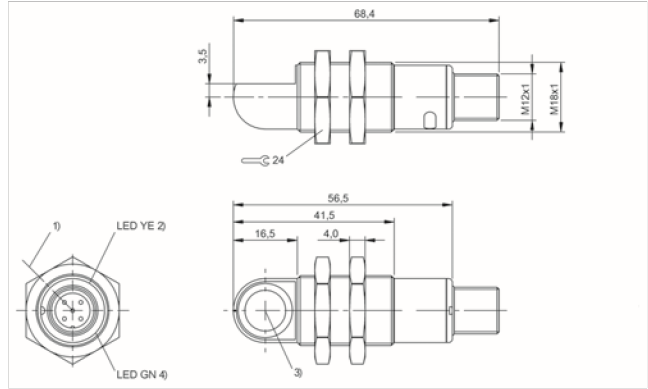


1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage

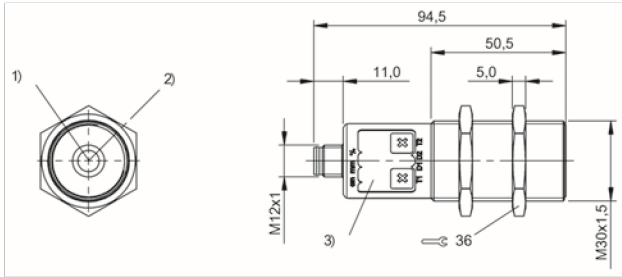
**BUS004R, BUS004U**



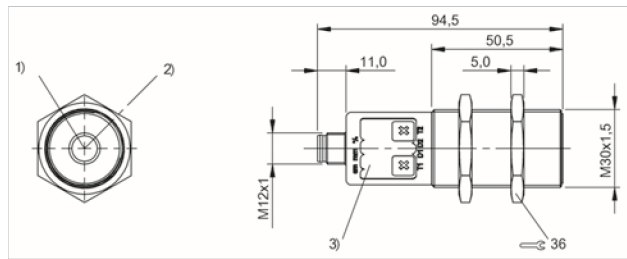
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) LED function indicator, 4) Output function  
**BUS0052, BUS004M**



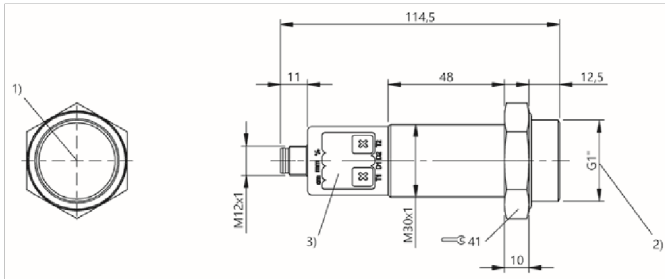
1) Exit direction 90° connector, 2) Output function, 3) Ultrasonic transducer axis, 4) Operating voltage  
**BUS0051, BUS0053**



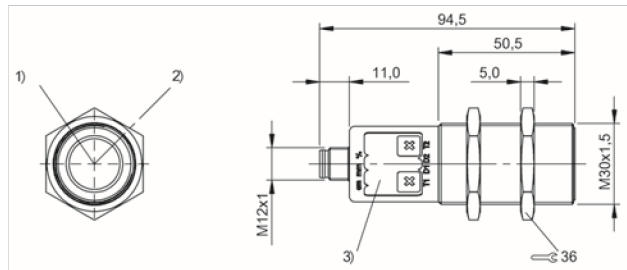
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS002M, BUS002N, BUS002K, BUS002L**



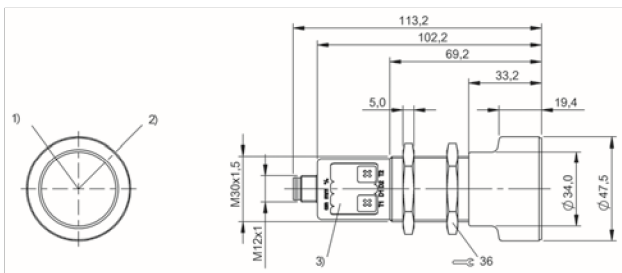
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS005L, BUS005K, BUS005N, BUS005M**



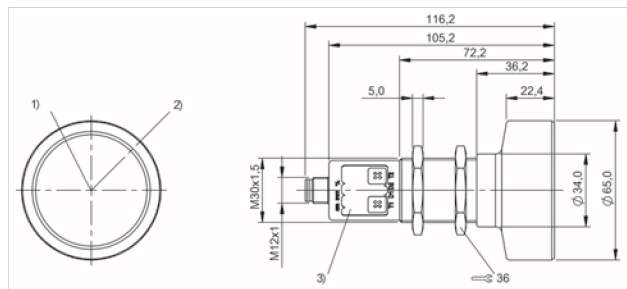
1) Ultrasonic transducer, 2) Process connection, 3) Display and control panel  
**BUS005Y, BUS005W**



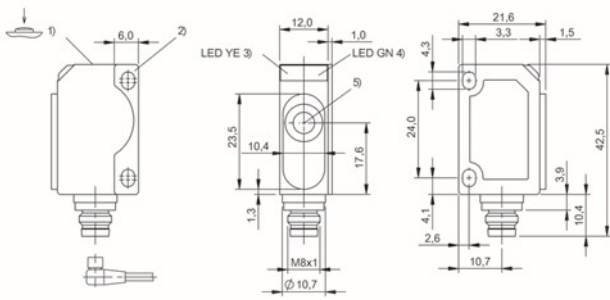
1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS003E, BUS003F, BUS003N, BUS0037, BUS0038**



1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS003M, BUS003T, BUS0044, BUS003K, BUS003L**

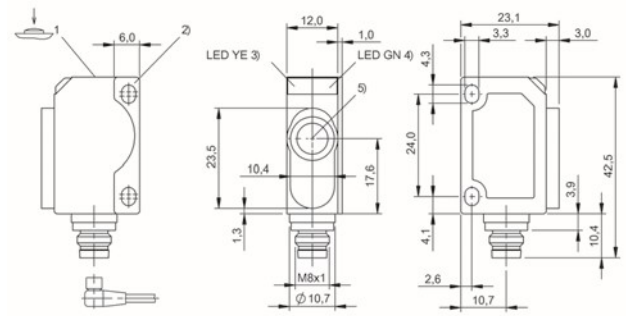


1) Ultrasonic transducer axis, 2) Exit direction 90° connector, 3) Display and control panel  
**BUS0042, BUS0041, BUS003Y, BUS0043**



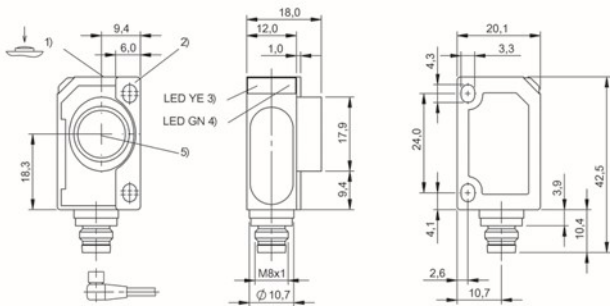
1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

**BUS004K, BUS004J**



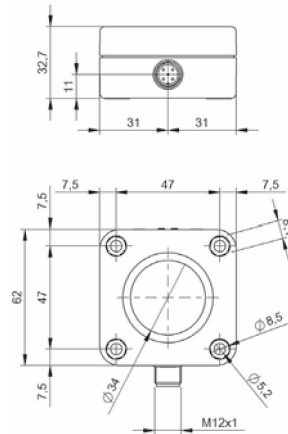
1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

**BUS0056, BUS004F**



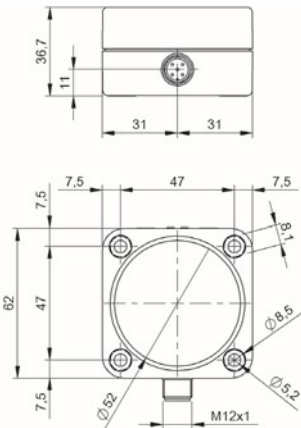
1) Set sensor, 2) Mounting plate, 3) Status indicator, 4) Operating voltage/mode, 5) Ultrasonic transducer axis

**BUS005E, BUS005C**



1) Ultrasonic transducer, 2) Display and control panel

**BUS006J**



1) Ultrasonic transducer, 2) Display and control panel

**BUS006K**



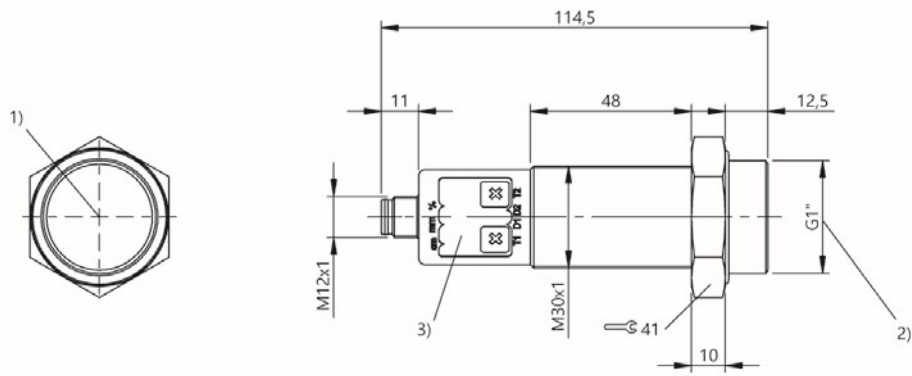


PNP normally open/normally closed	<b>BUS005Y</b> BUS M30E2-PPC-09/035-S92K-G1	
2 × PNP normally open/normally closed		
Style	Ø 47 mm	
Process connection	G 1"	
Analog output	Analog, voltage/Analog, current 0...10 V/4...20 mA linear rising/falling	
Connection	Connector, M12x1 connector, 5-pin	
Housing 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 <sub>b</sub>	9...30 VDC	
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		<b>BUS005W</b> BUS M30E2-PPC-20/130-S92K-G1
	<b>BUS005U</b> BUS M30E2-PWX-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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1) Ultrasonic transducer, 2) Process connection, 3) Display and control panel

**BUS005Y, BUS005U, BUS005W**

