



Technical Data

For detailed data and product description refer to the data sheets at www.pepperl-fuchs.com

General Data

Operating voltage	10 ... 30 V DC , ripple 10 % _{SS}
No-load supply current	≤ 30 mA
Rated operational current	100 mA , short-circuit/overload protected
Input type	1 program input
LED yellow	indication of the switching state flashing: program function object detected
LED red	solid red: Error red, flashing: program function, object not detected
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; foam polyurethane, cover PBT
Protection degree	IP67
Connection type	Device connector M12 x 1 , 4-pin



Properties

- Up to 400 mm sensing range
- DC, switching output
- Ø12 mm cylindrical housing
- Connector version

Your Benefit

- Smallest diameter cylindrical model
- Teach-wire or UB-PROG2 pushbutton configurable

Model Number

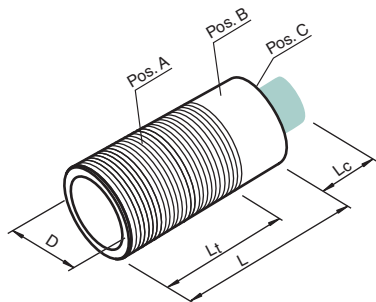
		UB120-12GM-E4-V1	UB120-12GM-E5-V1	UB200-12GM-E4-V1	UB200-12GM-E5-V1	UB400-12GM-E4-V1	UB400-12GM-E5-V1
Sensing range	green = preferred type	●	●				
	15 ... 120 mm						
	15 ... 200 mm						
	30 ... 400 mm						
Transducer frequency	approx. 850 kHz	●	●				
	approx. 400 kHz			●	●		
	approx. 310 kHz					●	●
Output type	1 switch output NPN Normally open/ closed , programmable	●		●		●	
	1 switch output PNP Normally open/ closed , programmable		●		●		●
Switching frequency	≤ 52 Hz	●	●				
	≤ 13 Hz			●	●		
	≤ 8 Hz					●	●

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●	●	●

Dimensions

Length L [mm]	64
Diameter D [mm]	12
Thread length l _t [mm]	41
Connector area l _c [mm]	6
LED position	Pos. B



Accessories

This and more accessories can be found in chapter 3.5 from page 673
See pages from 972 ... for cordsets See pages 1068 ... for mounting aids

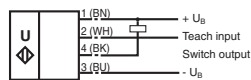
UB-PROG2	Programming unit
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
BF 12	Mounting flange, 12 mm
BF 12-F	Mounting flange with dead stop, 12 mm
V1-G-2M-PVC	Cable socket, M12, 4-pin, PVC cable
V1-W-2M-PUR	Cable socket, M12, 4-pin, PUR cable
UVW90-M12	Ultrasonic -deflector

Electrical Connection



UB200-12GM-E4-V1
UB400-12GM-E4-V1
UB120-12GM-E4-V1

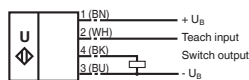
Standard symbol/Connections:
(version E4, npn)



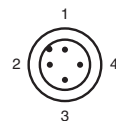
Core colours in accordance with EN 60947-5-2.

UB200-12GM-E5-V1
UB400-12GM-E5-V1
UB120-12GM-E5-V1

Standard symbol/Connections:
(version E5, pnp)



Core colours in accordance with EN 60947-5-2.



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)

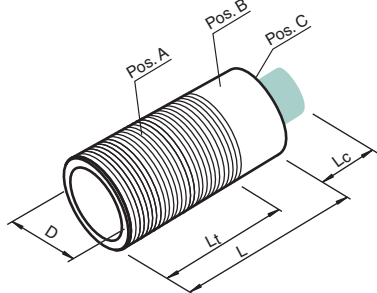


Properties

- Up to 400 mm sensing range
- DC, analog output
- Ø12 mm cylindrical housing
- Connector version

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- Smallest diameter cylindrical model
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General Data

No-load supply current	≤ 30 mA
Resolution	0.17 mm
Deviation of the characteristic curve	± 1 % of full-scale value
Input type	1 program input
LED yellow	solid yellow: object in the evaluation range yellow, flashing: program function, object detected
LED red	solid red: Error red, flashing: program function, object not detected
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Material	
Housing	brass, nickel-plated
Transducer	epoxy resin/hollow glass sphere mixture; foam polyurethane, cover PBT
Protection degree	IP67
Connection type	Device connector M12 x 1, 4-pin



Model Number

		UB120-12GM-I-V1	UB120-12GM-U-V1	UB200-12GM-I-V1	UB200-12GM-U-V1	UB400-12GM-I-V1	UB400-12GM-U-V1
Sensing range	green = preferred type	●	●	●	●	●	●
	15 ... 120 mm						
	15 ... 200 mm						
	30 ... 400 mm						
Transducer frequency	approx. 850 kHz	●	●				
	approx. 400 kHz			●	●		
	approx. 310 kHz					●	●
Operating voltage	10 ... 30 V DC, ripple 10 % _{SS}	●		●		●	
	15 ... 30 V DC, ripple 10 % _{SS}		●		●		●
Output type	1 analog output 0 ... 10 V		●		●		●
	1 analog output 4 ... 20 mA	●		●		●	

Approvals and Certificates

UL approval	cULus Listed, General Purpose	●	●	●	●	●	●
CSA approval	cCSAus Listed, General Purpose	●	●	●	●	●	●

Dimensions

Length L [mm]	64
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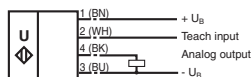
UB-PROG2	Programming unit
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 ... 30 mm
BF 12	Mounting flange, 12 mm
BF 12-F	Mounting flange with dead stop, 12 mm
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UVW90-M12	Ultrasonic -deflector

Electrical Connection



UB200-12GM-U-V1
UB400-12GM-U-V1
UB120-12GM-U-V1

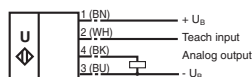
Standard symbol/Connections:
(version U)



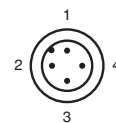
Core colors in accordance with EN 60947-5-2.

UB200-12GM-I-V1
UB400-12GM-I-V1
UB120-12GM-I-V1

Standard symbol/Connections:
(version I)



Core colors in accordance with EN 60947-5-2.



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
2	WH	(white)
3	BU	(blue)
4	BK	(black)