

Cylindrical Ultrasonic Sensors

12GM Series Diffuse Mode Sensors



Common Technical Data

Housing design	cylindrical
Type of voltage	DC
Operating voltage (max)	30 V
Connection type	M12 connector plug
Housing length L	70 mm
Housing diameter D	12 mm
UL	■

For detailed data and description, see the datasheet. Further products can be found online at www.pepperl-fuchs.com.

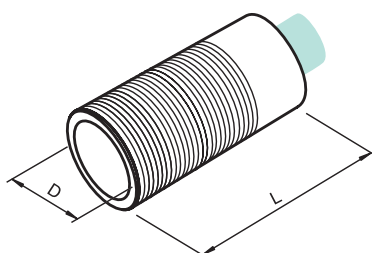
Model Number	Detection Range	Dead Band	Type of Output	Switching Element Function	Response Time [ms]	Switching Frequency	UB (Min)
UB120-12GM-E4-V1	120 mm	15 mm	NPN	Normally-open/normally-closed (selectable)	9 ms	52 Hz	10 V
UB120-12GM-E5-V1	120 mm	15 mm	PNP	Normally-open/normally-closed (selectable)	9 ms	52 Hz	10 V
UB120-12GM-I-V1	120 mm	15 mm	Analog current output	Analog	27 ms		10 V
UB120-12GM-U-V1	120 mm	15 mm	Analog voltage output	Analog	27 ms		15 V
UB200-12GM-E4-V1	200 mm	15 mm	NPN	Normally-open/normally-closed (selectable)	30 ms	13 Hz	10 V
UB200-12GM-E5-V1	200 mm	15 mm	PNP	Normally-open/normally-closed (selectable)	30 ms	13 Hz	10 V
UB200-12GM-I-V1	200 mm	15 mm	Analog current output	Analog	30 ms		10 V
UB200-12GM-U-V1	200 mm	15 mm	Analog voltage output	Analog	30 ms		15 V
UB400-12GM-E4-V1	400 mm	30 mm	NPN	Normally-open/normally-closed (selectable)	50 ms	8 Hz	10 V
UB400-12GM-E5-V1	400 mm	30 mm	PNP	Normally-open/normally-closed (selectable)	50 ms	8 Hz	10 V
UB400-12GM-I-V1	400 mm	30 mm	Analog current output	Analog	50 ms		10 V
UB400-12GM-U-V1	400 mm	30 mm	Analog voltage output	Analog	50 ms		15 V

Highlights

- Little space required, small dead band: ideal for tight installation situations
- IP67 degree of protection for excellent availability in harsh environments
- Teach-in process for simple configuration
- Three detection ranges, switching output or analog output—the right solution for every requirement

Brief Description

The highly compact cylindrical M12 housing in combination with the extra-small dead band make 12GM series ultrasonic sensors the ideal solution for tight installation situations, e.g., in the ink tanks of printing machines. For applications in harsh environments, the IP67 degree of protection guarantees the ultimate in robust construction and availability. The diffuse mode sensors—available either with switching or analog output—are impressively user-friendly as they can be configured via teach-in.



Accessories

BF 12	Mounting adapter, 12 mm
BF 12-F	Plastic mounting adapter, 12 mm
BF 5-30	Universal mounting bracket for cylindrical sensors with a diameter of 5 mm ... 30 mm
M12K-VE	Plastic nuts with centering ring for vibration-decoupled mounting of cylindrical sensors
UB-PROG2	Programming unit
UVW90-M12	Ultrasonic deviation reflector
V1-G-2M-PVC	Single-ended female cordset, M12, straight, A-coded, 4-pin, PVC cable, gray
V1-W-2M-PUR	Single-ended female cordset, M12, angled, A-coded, 4-pin, PUR cable, gray