



DW Series 12mm Inductive Proximity Sensors



M12 (12mm)

- Twenty models available
- Flush and non-flush models
- LED status indicator
- IP67 rated
- Two M12 lock nuts included
- Complete overload protection
- Lifetime warranty
- IO Link (PNP N.O. models only)



Dw Series M12 Inductive Proximity Sensor Selection Chart

Part Number	Price	Frequency	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Weight	Drawing Link
Standard Sensing Distance										
DW-AD-601-M12-120	\$15.50	3000Hz	2.0mm	Flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	90.5 g	PDF
DW-AS-601-M12	\$15.50	3000Hz	2.0mm	Flush	N.O.	NPN	M12 quick-disconnect	Diagram 2	23.5 g	PDF
DW-AD-603-M12-120	\$15.50	3000Hz	2.0mm	Flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 3	90.5 g	PDF
DW-AS-603-M12	\$15.50	3000Hz	2.0mm	Flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	28.5 g	PDF
DW-AS-604-M12	\$15.50	3000Hz	2.0mm	Flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	28.5 g	PDF
DW-AD-611-M12-120	\$15.50	2000Hz	4.0mm	Non-flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	91.5 g	PDF
DW-AS-611-M12	\$15.50	2000Hz	4.0mm	Non-flush	N.O.	NPN	M12 quick-disconnect	Diagram 2	26.7 g	PDF
DW-AD-613-M12-120	\$15.50	2000Hz	4.0mm	Non-flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 3	91.4 g	PDF
DW-AS-613-M12	\$15.50	2000Hz	4.0mm	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	26.7 g	PDF
DW-AS-614-M12	\$15.50	2000Hz	4.0mm	Non-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	26.7 g	PDF
Extended Sensing Distance										
DW-AD-621-M12-120	\$19.00	2500Hz	4.0mm	Flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	91g	PDF
DW-AS-621-M12	\$19.00	2500Hz	4.0mm	Flush	N.O.	NPN	M12 quick-disconnect	Diagram 2	25g	PDF
DW-AD-623-M12-120	\$19.00	2500Hz	4.0mm	Flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 3	91g	PDF
DW-AS-623-M12	\$19.00	2500Hz	4.0mm	Flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	25g	PDF
DW-AS-624-M12	\$19.00	2500Hz	4.0mm	Flush	N.C.	PNP	M12 quick-disconnect	Diagram 5	25g	PDF
DW-AD-631-M12-120	\$19.00	1400Hz	8.0mm	Non-flush	N.O.	NPN	2m (6.5 ft) axial cable	Diagram 1	89g	PDF
DW-AS-631-M12	\$19.00	1400Hz	8.0mm	Non-flush	N.O.	NPN	M12 quick-disconnect	Diagram 2	29g	PDF
DW-AD-633-M12-120	\$19.00	1400Hz	8.0mm	Non-flush	N.O.	PNP	2m (6.5 ft) axial cable	Diagram 3	89g	PDF
DW-AS-633-M12	\$19.00	1400Hz	8.0mm	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 4	29g	PDF
DW-AS-634-M12	\$19.00	1400Hz	8.0mm	Non-flush	N.C.	PNP	M12 quick-disconnect	Diagram 4	29g	PDF



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DW Series M12 Specifications				
Sensor	DW-Ax-60x-M12	DW-Ax-62x-M12	DW-Ax-61x-M12	DW-Ax-63x-M12
Mounting Type	Flush		Non-flush	
Nominal Sensing Distance	2mm	4mm	4mm	8mm
Operating Distance	-			
Material Correction Factors	See the Material influence table			
Output Type	NPN or PNP, N.O. or N.C.			
Operating Voltage	10 to 30 VDC			
No-load Supply Current	≤ 10mA			
Operating (Load) Current	≤ 200mA			
Off-state (Leakage) Current	≤ 0.1 mA			
Voltage Drop	≤ 2 V @ 200mA			
Switching Frequency	3000Hz	2500Hz	2000Hz	1400Hz
Differential Travel (% of Nominal Distance)	<20%			
Repeat Accuracy	0.10 mm	0.20 mm		0.40 mm
Ripple	≤ 20%			
Time Delay Before Availability (tv)	≤80ms	≤60ms	≤80ms	≤50ms
Reverse Polarity Protection	Yes			
Short-Circuit Protection	Yes			
Operating Temperature	-25 to 70°C (-13 to 158°F)			
Protection Degree (DIN 40050)	IP67			
Indication/Switch Status	Indicator LED, Yellow, Solid (When the target is between 0-80% of Range, the LED will be solid) Indicator LED, Yellow, Blinking (When the target is between 80-100% of Range, the LED will blink to let you know it is nearing max range)			
Housing Material	Nickel Plated Brass			
Sensing Face Material	PBTP (Crastin)			
Shock/Vibration	IEC 60947-5-2/7.4			
Tightening Torque	10 Nm			
Connection	2m cable (PVC, 4C, 26 AWG), or 4-Pole M12 connection			
IO-Link	IO-Link (PNP, N.O. version only)			
Agency Approvals	CE, cULus E239373			

Note: To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.

Wiring diagrams

Diagram 1

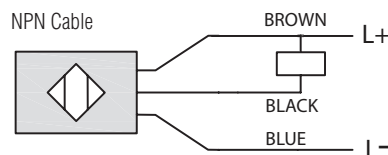


Diagram 2

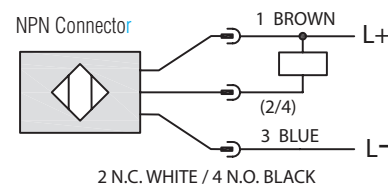


Diagram 3

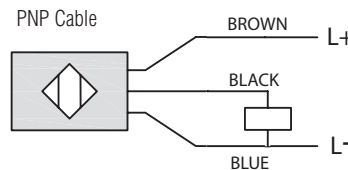
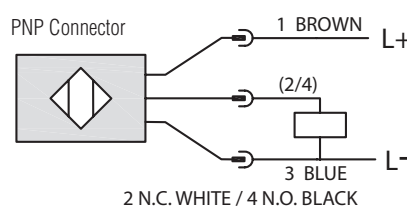
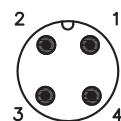


Diagram 4



Connectors

M12 connector

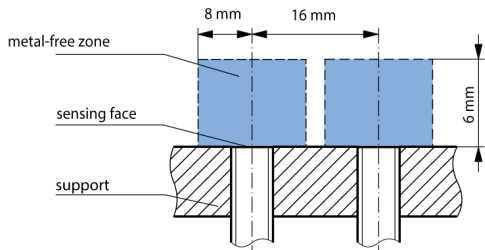




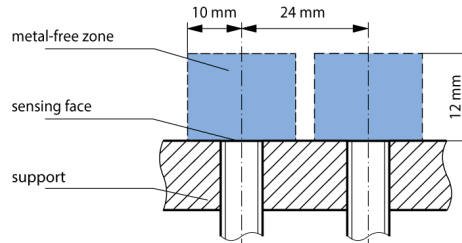
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Installation

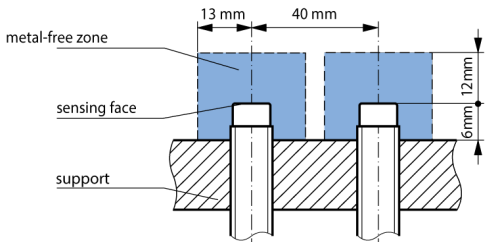
DW-Ax-60x-M12



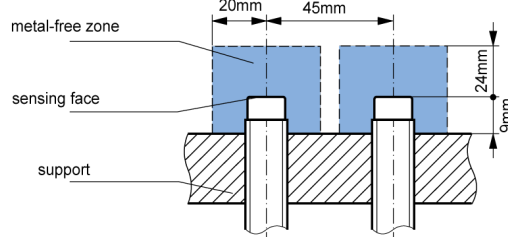
DW-Ax-62x-M12



DW-Ax-61x-M12

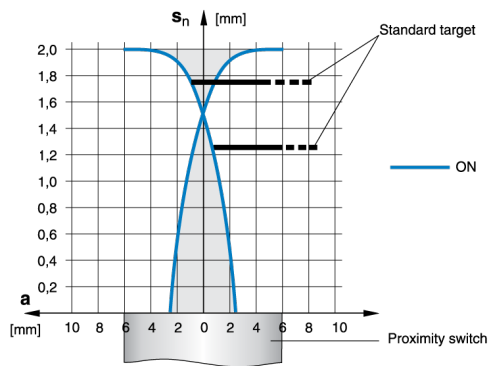


DW-Ax-63x-M12

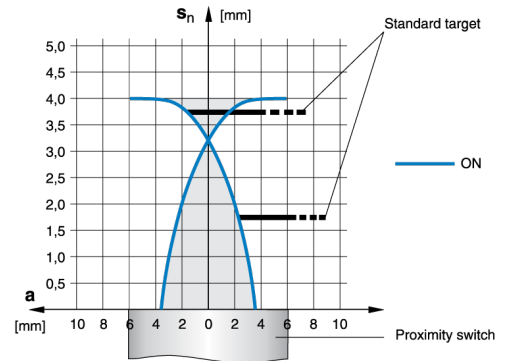


Response Diagrams

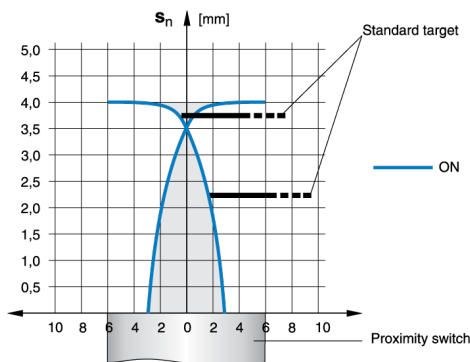
DW-Ax-60x-M12



DW-Ax-62x-M12



DW-Ax-61x-M12



DW-Ax-63x-M12

