



# DW Series 12mm Inductive Proximity Sensors



## M12 (12mm)

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

### DW Series M12 Inductive Proximity Selection Chart

Part Number	Price	Frequency	Sensing Range	Mounting	Output State	Logic	Connection	Wiring	Weight (g)	Drawing Link
<b>Standard Sensing Distance</b>										
<a href="#">DW-AD-601-M12-120</a>	\$16.50	3000Hz	2mm	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 2	90.5	<a href="#">PDF</a>
<a href="#">DW-AS-601-M12</a>	\$16.00	3000Hz	2mm	Flush	N.O.	NPN	M12 quick-disconnect	Diagram 4	23.5	<a href="#">PDF</a>
<a href="#">DW-AD-603-M12-120</a>	\$16.50	3000Hz	2mm	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 1	90.5	<a href="#">PDF</a>
<a href="#">DW-AS-603-M12</a>	\$16.00	3000Hz	2mm	Flush	N.O.	PNP	M12 quick-disconnect	Diagram 3	28.5	<a href="#">PDF</a>
<a href="#">DW-AS-604-M12</a>	\$16.00	3000Hz	2mm	Flush	N.C.	PNP	M12 quick-disconnect	Diagram 3	28.5	<a href="#">PDF</a>
<a href="#">DW-AD-611-M12-120</a>	\$16.50	2000Hz	4mm	Non-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 2	91.5	<a href="#">PDF</a>
<a href="#">DW-AS-611-M12</a>	\$16.00	2000Hz	4mm	Non-flush	N.O.	NPN	M12 quick-disconnect	Diagram 4	26.7	<a href="#">PDF</a>
<a href="#">DW-AD-613-M12-120</a>	\$16.50	2000Hz	4mm	Non-flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 1	91.4	<a href="#">PDF</a>
<a href="#">DW-AS-613-M12</a>	\$16.00	2000Hz	4mm	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 3	26.7	<a href="#">PDF</a>
<a href="#">DW-AS-614-M12</a>	\$16.00	2000Hz	4mm	Non-flush	N.C.	PNP	M12 quick-disconnect	Diagram 3	26.7	<a href="#">PDF</a>
<b>Extended Sensing Distance</b>										
<a href="#">DW-AD-621-M12-120</a>	\$21.00	2500Hz	4mm	Flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 2	91	<a href="#">PDF</a>
<a href="#">DW-AS-621-M12</a>	\$20.00	2500Hz	4mm	Flush	N.O.	NPN	M12 quick-disconnect	Diagram 4	25	<a href="#">PDF</a>
<a href="#">DW-AD-623-M12-120</a>	\$21.00	2500Hz	4mm	Flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 1	91	<a href="#">PDF</a>
<a href="#">DW-AS-623-M12</a>	\$20.00	2500Hz	4mm	Flush	N.O.	PNP	M12 quick-disconnect	Diagram 3	25	<a href="#">PDF</a>
<a href="#">DW-AS-624-M12</a>	\$20.00	2500Hz	4mm	Flush	N.C.	PNP	M12 quick-disconnect	Diagram 3	25	<a href="#">PDF</a>
<a href="#">DW-AD-631-M12-120</a>	\$21.00	1400Hz	8mm	Non-flush	N.O.	NPN	2m [6.5 ft] axial cable	Diagram 2	89	<a href="#">PDF</a>
<a href="#">DW-AS-631-M12</a>	\$20.00	1400Hz	8mm	Non-flush	N.O.	NPN	M12 quick-disconnect	Diagram 4	29	<a href="#">PDF</a>
<a href="#">DW-AD-633-M12-120</a>	\$21.00	1400Hz	8mm	Non-flush	N.O.	PNP	2m [6.5 ft] axial cable	Diagram 1	89	<a href="#">PDF</a>
<a href="#">DW-AS-633-M12</a>	\$20.00	1400Hz	8mm	Non-flush	N.O.	PNP	M12 quick-disconnect	Diagram 3	29	<a href="#">PDF</a>
<a href="#">DW-AS-634-M12</a>	\$20.00	1400Hz	8mm	Non-flush	N.C.	PNP	M12 quick-disconnect	Diagram 3	29	<a href="#">PDF</a>

## Wiring Diagrams

Diagram 1

PNP Cable

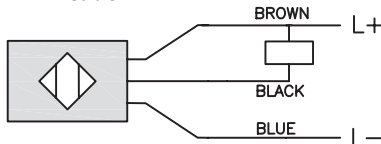
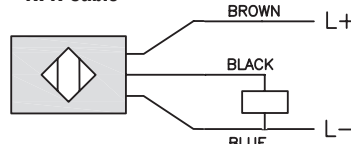


Diagram 2

NPN Cable



## Connectors

M12 connector

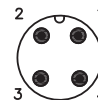
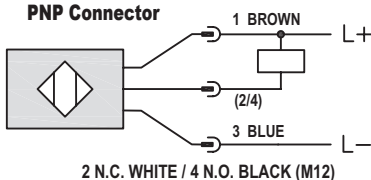


Diagram 3

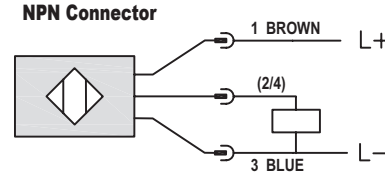
PNP Connector



2 N.C. WHITE / 4 N.O. BLACK (M12)

Diagram 4

NPN Connector



2 N.C. WHITE / 4 N.O. BLACK (M12)

# DW Series 12mm Inductive Proximity Sensors

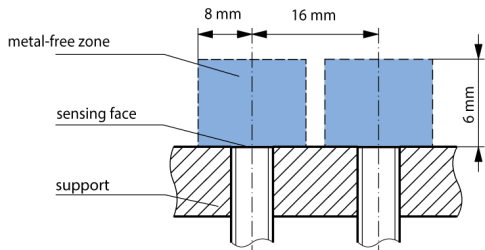
DW Series M12 Inductive Proximity Specifications				
Sensor	DW-Ax-60x-M12	DW-Ax-62x-M12	DW-Ax-61x-M12	DW-Ax-63x-M12
Mounting Type	Flush		Non-flush	
Nominal Sensing Distance	2mm	4mm	4mm	8mm
Operating Distance	-			
Material Correction Factors	See the <a href="#">Material influence table</a>			
Output Type	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 [6.5 ft] cable [PVC, 4C, 26 AWG], or 4-Pole M12 connection			
IO-Link	IO-Link (PNP, N.O. version only)			
Agency Approvals	CE, cULus E239373			

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

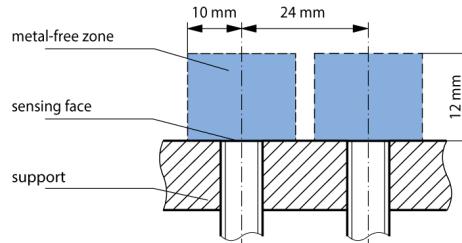
# DW Series 12mm Inductive Proximity Sensors

## Installation

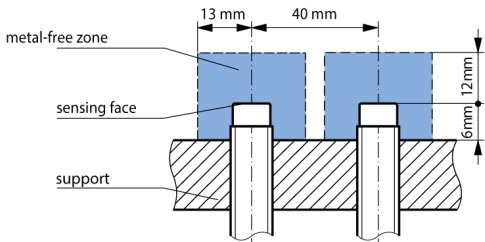
**DW-Ax-60x-M12**



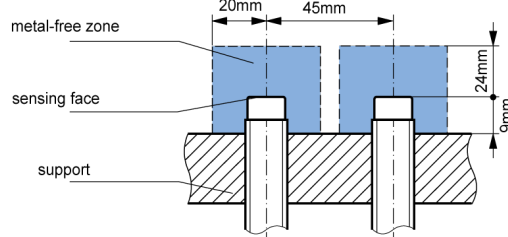
**DW-Ax-62x-M12**



**DW-Ax-61x-M12**

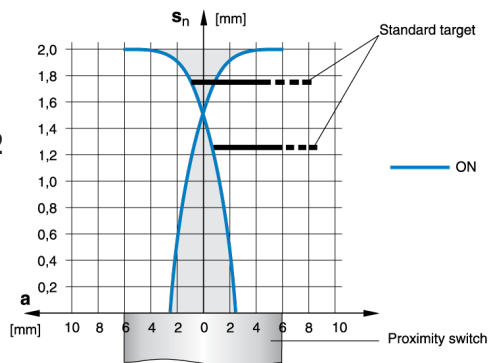


**DW-Ax-63x-M12**

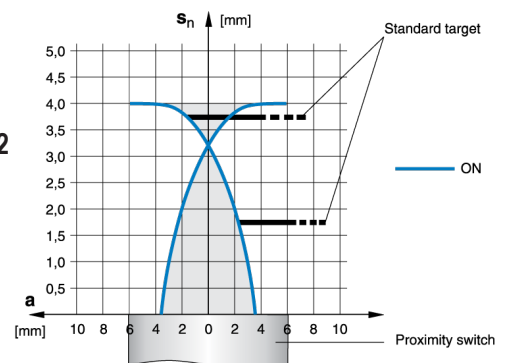


## Response Diagrams

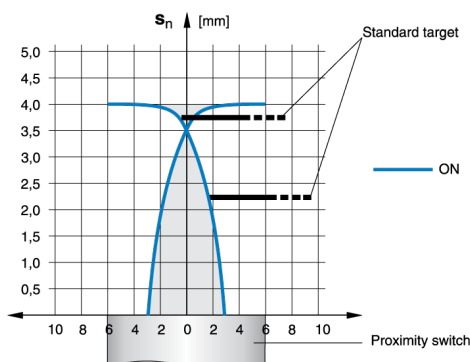
**DW-Ax-60x-M12**



**DW-Ax-62x-M12**



**DW-Ax-61x-M12**



**DW-Ax-63x-M12**

