



# DW Series 8mm Inductive Proximity Sensors



## M8 (8mm) Stainless Steel – DC

- Flush and non-flush models
- Complete overload protection
- IP67 rated
- I/O Link (PNP N.O. models only)
- Two M\* nuts included
- 304 stainless steel housing
- LED status indicator
- Lifetime warranty



### DW Series M8 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-M8-121</a> | \$17.00 | 5000Hz    | 1.5mm         | Flush     | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | 40.2       | <a href="#">PDF</a> |
| <a href="#">DW-AS-601-M8-001</a> | \$16.50 | 5000Hz    | 1.5mm         | Flush     | N.O.         | NPN   | M8 quick-disconnect     | Diagram 3 | 13         | <a href="#">PDF</a> |
| <a href="#">DW-AD-603-M8-121</a> | \$17.00 | 5000Hz    | 1.5mm         | Flush     | N.O.         | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | 40.2       | <a href="#">PDF</a> |
| <a href="#">DW-AS-603-M8-001</a> | \$16.50 | 5000Hz    | 1.5mm         | Flush     | N.O.         | PNP   | M8 quick-disconnect     | Diagram 4 | 13         | <a href="#">PDF</a> |
| <a href="#">DW-AS-604-M8-001</a> | \$16.50 | 5000Hz    | 1.5mm         | Flush     | N.C.         | PNP   | M8 quick-disconnect     | Diagram 4 | 13         | <a href="#">PDF</a> |
| <a href="#">DW-AD-611-M8-121</a> | \$17.00 | 4500Hz    | 2.5mm         | Non-flush | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | 39.8       | <a href="#">PDF</a> |
| <a href="#">DW-AS-611-M8-001</a> | \$16.50 | 4500Hz    | 2.5mm         | Non-flush | N.O.         | NPN   | M8 quick-disconnect     | Diagram 3 | 12.5       | <a href="#">PDF</a> |
| <a href="#">DW-AD-613-M8-121</a> | \$17.00 | 4500Hz    | 2.5mm         | Non-flush | N.O.         | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | 39.8       | <a href="#">PDF</a> |
| <a href="#">DW-AS-613-M8-001</a> | \$16.50 | 4500Hz    | 2.5mm         | Non-flush | N.O.         | PNP   | M8 quick-disconnect     | Diagram 4 | 12.5       | <a href="#">PDF</a> |
| <a href="#">DW-AS-614-M8-001</a> | \$16.50 | 4500Hz    | 2.5mm         | Non-flush | N.C.         | PNP   | M8 quick-disconnect     | Diagram 4 | 12.5       | <a href="#">PDF</a> |
| <b>Extended Sensing Distance</b> |         |           |               |           |              |       |                         |           |            |                     |
| <a href="#">DW-AD-621-M8</a>     | \$21.00 | 5000Hz    | 2mm           | Flush     | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | 41.5       | <a href="#">PDF</a> |
| <a href="#">DW-AS-621-M8-001</a> | \$20.00 | 5000Hz    | 2mm           | Flush     | N.O.         | NPN   | M8 quick-disconnect     | Diagram 3 | 13         | <a href="#">PDF</a> |
| <a href="#">DW-AD-623-M8</a>     | \$21.00 | 5000Hz    | 2mm           | Flush     | N.O.         | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | 41.5       | <a href="#">PDF</a> |
| <a href="#">DW-AS-623-M8-001</a> | \$20.00 | 5000Hz    | 2mm           | Flush     | N.O.         | PNP   | M8 quick-disconnect     | Diagram 4 | 13         | <a href="#">PDF</a> |
| <a href="#">DW-AS-624-M8-001</a> | \$20.00 | 5000Hz    | 2mm           | Flush     | N.C.         | PNP   | M8 quick-disconnect     | Diagram 4 | 13         | <a href="#">PDF</a> |
| <a href="#">DW-AD-631-M8</a>     | \$21.00 | 3500Hz    | 4mm           | Non-flush | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | 69         | <a href="#">PDF</a> |
| <a href="#">DW-AS-631-M8-001</a> | \$20.00 | 3500Hz    | 4mm           | Non-flush | N.O.         | NPN   | M8 quick-disconnect     | Diagram 3 | 12.3       | <a href="#">PDF</a> |
| <a href="#">DW-AD-633-M8</a>     | \$21.00 | 3500Hz    | 4mm           | Non-flush | N.O.         | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | 69         | <a href="#">PDF</a> |
| <a href="#">DW-AS-633-M8-001</a> | \$20.00 | 3500Hz    | 4mm           | Non-flush | N.O.         | PNP   | M8 quick-disconnect     | Diagram 4 | 12.3       | <a href="#">PDF</a> |
| <a href="#">DW-AS-634-M8-001</a> | \$20.00 | 3500Hz    | 4mm           | Non-flush | N.C.         | PNP   | M8 quick-disconnect     | Diagram 4 | 12.3       | <a href="#">PDF</a> |

## Wiring Diagrams

Diagram 1

NPN Cable

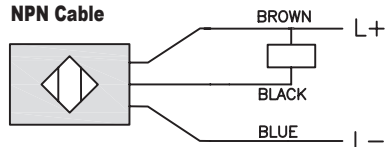
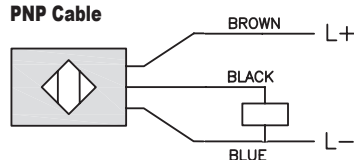


Diagram 2

PNP Cable



Connectors

M8 connector

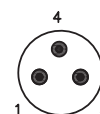


Diagram 3

NPN Connector

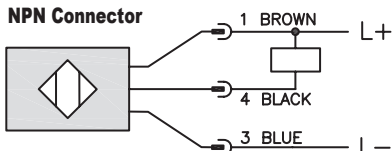
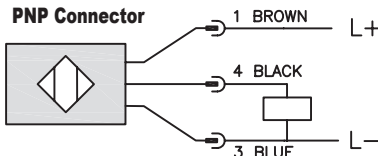


Diagram 4

PNP Connector



# DW Series 8mm Inductive Proximity Sensors

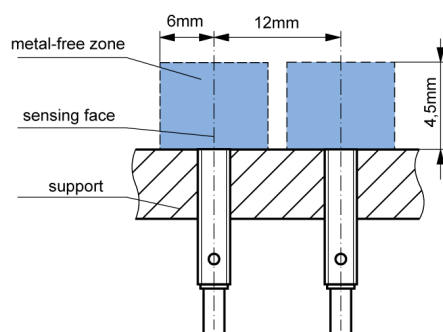
| DW Series M8 Inductive Proximity Specifications |                                                                                                                                                                                                                                              |              |                |              |
|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|----------------|--------------|
| Sensor                                          | DW-Ax-60x-M8                                                                                                                                                                                                                                 | DW-Ax-62x-M8 | DW-Ax-61x-M8   | DW-Ax-63x-M8 |
| Mounting Type                                   | Flush                                                                                                                                                                                                                                        |              | Non-flush      |              |
| Nominal Sensing Distance                        | 1.5mm                                                                                                                                                                                                                                        | 2mm          | 2.5mm          | 4mm          |
| 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                             | 5000Hz                                                                                                                                                                                                                                       |              | 4500Hz         | 3500Hz       |
| Differential Travel<br>(% of Nominal Distance)  | < 20%                                                                                                                                                                                                                                        | < 10%        | < 20%          |              |
| Repeat Accuracy                                 | 0.07 mm                                                                                                                                                                                                                                      | 0.10 mm      | 0.12 mm        | 0.20 mm      |
| Ripple                                          | ≤ 20%                                                                                                                                                                                                                                        |              |                |              |
| Time Delay Before Availability (tv)             | ≤32ms                                                                                                                                                                                                                                        |              | ≤60ms          | ≤80ms        |
| 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)<br>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                                | 304 Stainless Steel                                                                                                                                                                                                                          |              |                |              |
| Sensing Face Material                           | PA66 [Nylon]                                                                                                                                                                                                                                 | PA12 [Nylon] | PBTP [Crastin] |              |
| Shock/Vibration                                 | IEC 60947-5-2/7.4                                                                                                                                                                                                                            |              |                |              |
| Tightening Torque                               | 8 Nm                                                                                                                                                                                                                                         |              |                |              |
| Connection                                      | 2m [6.5 ft] cable [PVC, 3C, 26 AWG], or 3-Pole M8 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.

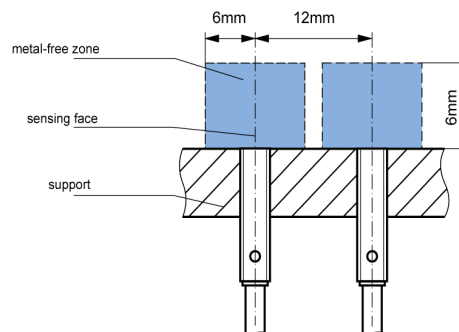
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## Installation

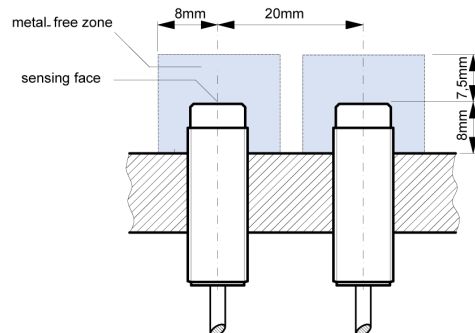
**DW-Ax-60x-M8**



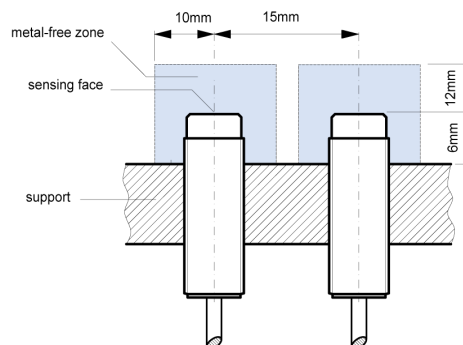
**DW-Ax-62x-M8**



**DW-Ax-61x-M8**

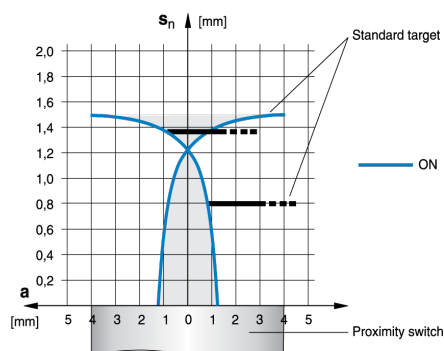


**DW-Ax-63x-M8**

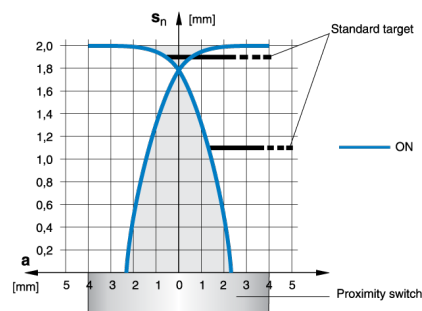


## Response Diagram

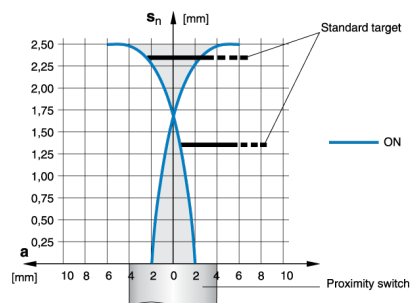
**DW-Ax-60x-M8**



**DW-Ax-62x-M8**



**DW-Ax-61x-M8**



**DW-Ax-63x-M8**

