



# DW Series 18mm Inductive Proximity Sensors



## M18 (18mm)

- Flush and non-flush models
- LED status indicator
- IP67 rated
- Two M18 lock nuts included
- Complete overload protection
- Lifetime warranty
- IO Link (PNP N.O. models only)



### DW Series M18 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-AS-601-M18-002</a> | \$18.00 | 2000Hz    | 5mm           | Flush     | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 43         | <a href="#">PDF</a> |
| <a href="#">DW-AS-603-M18-002</a> | \$18.00 | 2000Hz    | 5mm           | Flush     | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 43         | <a href="#">PDF</a> |
| <a href="#">DW-AS-604-M18-002</a> | \$18.00 | 2000Hz    | 5mm           | Flush     | N.C.         | PNP   | M12 quick-disconnect | Diagram 3 | 43         | <a href="#">PDF</a> |
| <a href="#">DW-AS-611-M18-002</a> | \$18.00 | 2000Hz    | 8mm           | Non-flush | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 49         | <a href="#">PDF</a> |
| <a href="#">DW-AS-613-M18-002</a> | \$18.00 | 2000Hz    | 8mm           | Non-flush | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 49         | <a href="#">PDF</a> |
| <a href="#">DW-AS-614-M18-002</a> | \$18.00 | 2000Hz    | 8mm           | Non-flush | N.C.         | PNP   | M12 quick-disconnect | Diagram 3 | 49         | <a href="#">PDF</a> |
| <b>Extended Sensing Distance</b>  |         |           |               |           |              |       |                      |           |            |                     |
| <a href="#">DW-AS-621-M18-002</a> | \$22.50 | 1500Hz    | 8mm           | Flush     | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 51         | <a href="#">PDF</a> |
| <a href="#">DW-AS-623-M18-002</a> | \$22.50 | 1500Hz    | 8mm           | Flush     | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 51         | <a href="#">PDF</a> |
| <a href="#">DW-AS-624-M18-002</a> | \$22.50 | 1500Hz    | 8mm           | Flush     | N.C.         | PNP   | M12 quick-disconnect | Diagram 3 | 51         | <a href="#">PDF</a> |
| <a href="#">DW-AS-631-M18-002</a> | \$22.50 | 500Hz     | 12mm          | Non-flush | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 105        | <a href="#">PDF</a> |
| <a href="#">DW-AS-633-M18-002</a> | \$22.50 | 500Hz     | 12mm          | Non-flush | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 105        | <a href="#">PDF</a> |
| <a href="#">DW-AS-634-M18-002</a> | \$22.50 | 500Hz     | 12mm          | Non-flush | N.C.         | PNP   | M12 quick-disconnect | Diagram 3 | 105        | <a href="#">PDF</a> |

## Wiring Diagrams

Diagram 1

NPN Connector

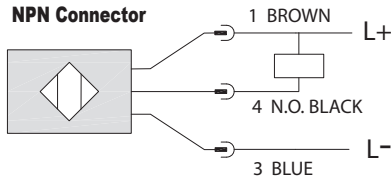
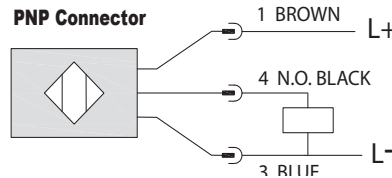


Diagram 2

PNP Connector



## Connectors

M12 connector

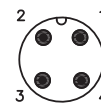
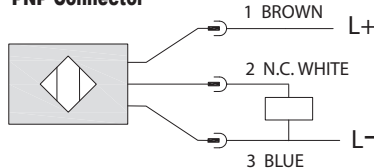


Diagram 3

PNP Connector



# DW Series 18mm Inductive Proximity Sensors

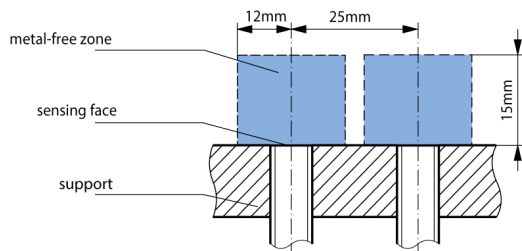
| DW Series M18 Inductive Proximity Specifications |  |               |               |               |
|--|--|---------------|---------------|---------------|
| Sensor   | DW-Ax-60x-M18  | DW-Ax-62x-M18 | DW-Ax-61x-M18 | DW-Ax-63x-M18 |
| Mounting Type                                    | Flush  |               | Non-flush     |               |
| Nominal Sensing Distance                         | 5mm  | 8mm           | 8mm           | 12mm          |
| 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)<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                                 | Nickel Plated Brass  |               |               |               |
| Sensing Face Material                            | PBTP [Crastin]   |               |               |               |
| Shock/Vibration                                  | IEC 60947-5-2/7.4  |               |               |               |
| Tightening Torque                                | 25 Nm  |               |               |               |
| Connection                                       | 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.

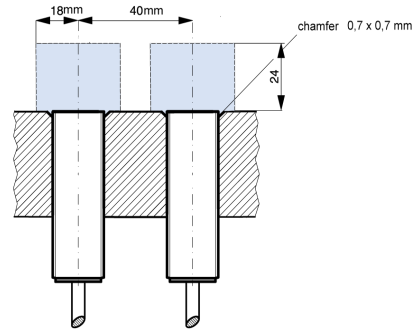
# DW Series 18mm Inductive Proximity Sensors

## Installation

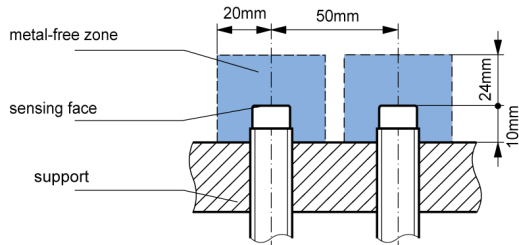
**DW-Ax-60x-M18**



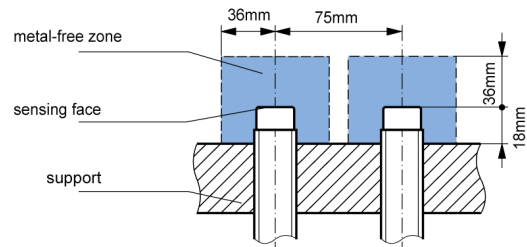
**DW-Ax-62x-M18**



**DW-Ax-61x-M18**

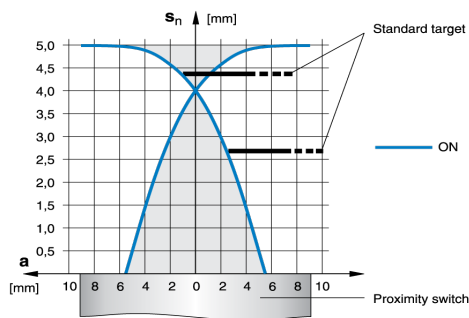


**DW-Ax-63x-M18**

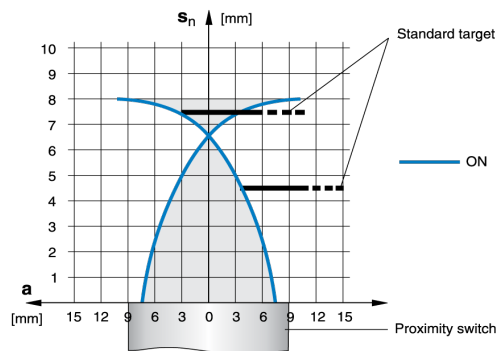


## Response Diagrams

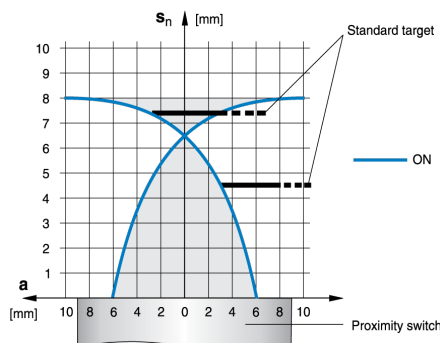
**DW-Ax-60x-M18**



**DW-Ax-62x-M18**



**DW-Ax-61x-M18**



**DW-Ax-63x-M18**

