



# DW Series 30mm Inductive Proximity Sensors



## M30 (30mm)

- Flush and non-flush models
- LED status indicator
- IP67 rated
- Two M30 lock nuts included
- Complete overload protection
- Lifetime warranty
- IO Link (PNP N.O. models only)



### DW Series M30 Inductive Proximity Sensor 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-M30-002</a> | \$25.00 | 1200Hz    | 10mm          | Flush     | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 130        | <a href="#">PDF</a> |
| <a href="#">DW-AS-603-M30-002</a> | \$25.00 | 1200Hz    | 10mm          | Flush     | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 130        | <a href="#">PDF</a> |
| <a href="#">DW-AS-604-M30-002</a> | \$25.00 | 1200Hz    | 10mm          | Flush     | N.C.         | PNP   | M12 quick-disconnect | Diagram 3 | 130        | <a href="#">PDF</a> |
| <a href="#">DW-AS-611-M30-002</a> | \$25.00 | 700Hz     | 15mm          | Non-flush | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 125        | <a href="#">PDF</a> |
| <a href="#">DW-AS-613-M30-002</a> | \$25.00 | 700Hz     | 15mm          | Non-flush | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 125        | <a href="#">PDF</a> |
| <a href="#">DW-AS-614-M30-002</a> | \$25.00 | 700Hz     | 15mm          | Non-flush | N.C.         | PNP   | M12 quick-disconnect | Diagram 3 | 125        | <a href="#">PDF</a> |
| <b>Extended Sensing Distance</b>  |         |           |               |           |              |       |                      |           |            |                     |
| <a href="#">DW-AS-631-M30-002</a> | \$29.00 | 200Hz     | 25mm          | Non-flush | N.O.         | NPN   | M12 quick-disconnect | Diagram 1 | 125        | <a href="#">PDF</a> |
| <a href="#">DW-AS-633-M30-002</a> | \$29.00 | 200Hz     | 25mm          | Non-flush | N.O.         | PNP   | M12 quick-disconnect | Diagram 2 | 125        | <a href="#">PDF</a> |

## Wiring Diagrams

Diagram 1

NPN Connector

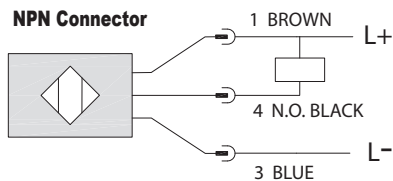
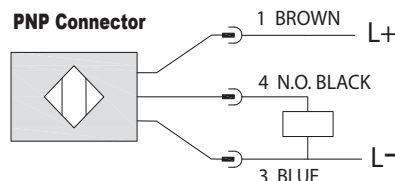


Diagram 2

PNP Connector



Connectors

M12 connector

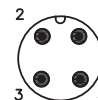
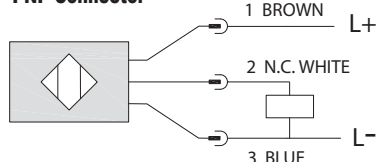


Diagram 3

PNP Connector



# DW Series 30mm Inductive Proximity Sensors

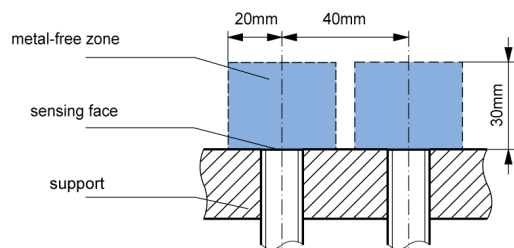
| DW Series M30 Specifications                   |                                                                                                                                                                                                                                              |                     |               |
|------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|---------------|
| Sensor                                         | DW-Ax-60x-M30                                                                                                                                                                                                                                | DW-Ax-61x-M30       | DW-Ax-63x-M30 |
| Mounting Type                                  | Flush                                                                                                                                                                                                                                        | Non-flush           |               |
| Nominal Sensing Distance                       | 10mm                                                                                                                                                                                                                                         | 15mm                | 25mm          |
| 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                            | 1200Hz                                                                                                                                                                                                                                       | 700Hz               | 200Hz         |
| Differential Travel<br>(% of Nominal Distance) | < 20%                                                                                                                                                                                                                                        |                     |               |
| Repeat Accuracy                                | 0.50 mm                                                                                                                                                                                                                                      | 0.75 mm             |               |
| Ripple                                         | ≤ 20%                                                                                                                                                                                                                                        |                     |               |
| Time Delay Before Availability (tv)            | ≤ 70ms                                                                                                                                                                                                                                       | ≤ 60ms              |               |
| 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                               | Chrome Plated Brass                                                                                                                                                                                                                          | Nickel Plated Brass |               |
| Sensing Face Material                          | PBTP (Crastin)                                                                                                                                                                                                                               |                     |               |
| Shock/Vibration                                | IEC 60947-5-2/7.4                                                                                                                                                                                                                            |                     |               |
| Tightening Torque                              | 70 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.

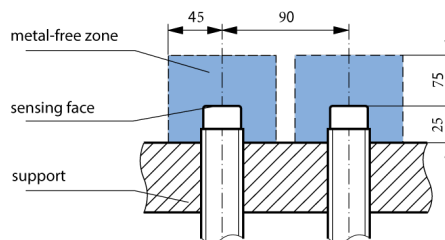
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## Installation

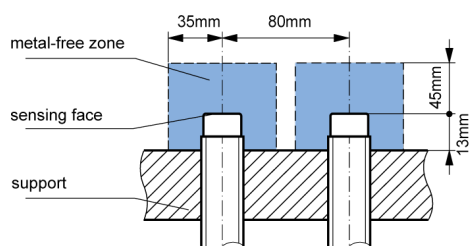
**DW-Ax-60x-M30**



**DW-Ax-63x-M30**

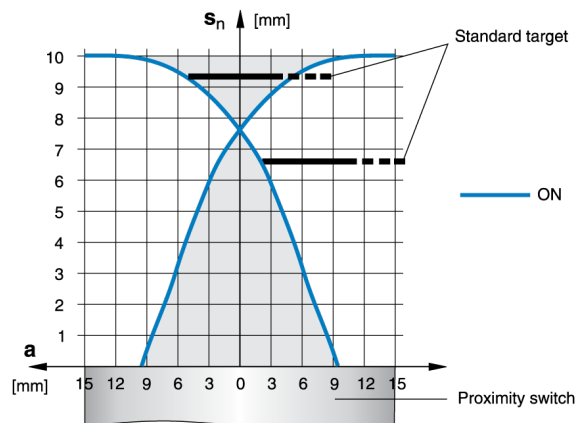


**DW-Ax-61x-M30**

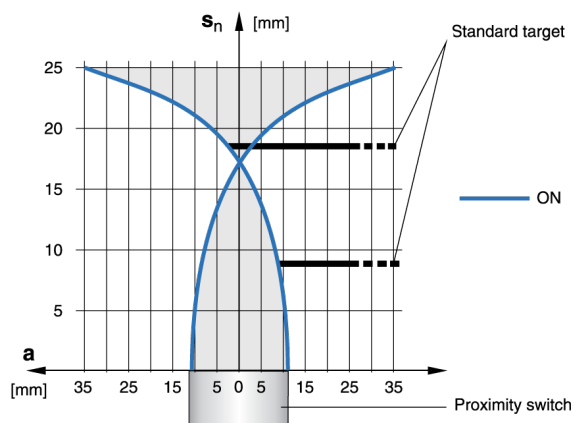


## Response Diagram

**DW-Ax-60x-M30**



**DW-Ax-63x-M30**



**DW-Ax-61x-M30**

