

# **DW Series 20 x 32mm Stainless Steel Proximity Sensors**



#### Miniature 20 x 32mm stainless steel – DC

- Miniature 20mm x 32mm proximity sensor
- · Complete overload protection
- IP68/IP69K rated
- Stainless steel construction
- One-piece for harsh duty applications
- LED status indicator
- Lifetime warranty
- IO-Link models available



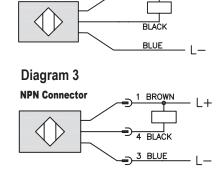
| DW Series 20 x 32mm Inductive Proximity Selection Chart |         |                                           |                  |          |                 |       |                               |           |            |
|---------------------------------------------------------|---------|-------------------------------------------|------------------|----------|-----------------|-------|-------------------------------|-----------|------------|
| Part Number                                             | Price   | Size                                      | Sensing<br>Range | Mounting | Output<br>State | Logic | Connection                    | Wiring    | Dimensions |
| Extended Distance                                       |         |                                           |                  |          |                 |       |                               |           |            |
| DW-AD-701-C23                                           | \$98.00 | 20 x 32 x 8 mm<br>[0.79 x 1.26 x 0.31 in] | 7mm [0.276 in]   | Flush    | N.O.            | NPN   | 2m [6.5 ft] axial cable       | Diagram 1 | Figure 1   |
| DW-AD-703-C23*                                          | \$98.00 |                                           |                  |          | N.O.            | PNP   | 2m [6.5 ft] axial cable       | Diagram 2 | Figure 1   |
| DW-AV-701-C23-276                                       | \$98.00 |                                           |                  |          | N.O.            | NPN   | M8 with 0.2 m (0.66 ft) cable | Diagram 3 | Figure 2   |
| DW-AV-703-C23-276*                                      | \$98.00 |                                           |                  |          | N.O.            | PNP   | M8 with 0.2 m (0.66 ft) cable | Diagram 4 | Figure 2   |
| DW-AD-702-C23                                           | \$95.00 |                                           |                  |          | N.C.            | NPN   | 2m [6.5 ft] axial cable       | Diagram 1 | Figure 1   |
| DW-AD-704-C23                                           | \$95.00 |                                           |                  |          | N.C.            | PNP   | 2m [6.5 ft] axial cable       | Diagram 2 | Figure 1   |
| DW-AV-702-C23-276                                       | \$95.00 |                                           |                  |          | N.C.            | NPN   | M8 with 0.2 m (0.66 ft) cable | Diagram 3 | Figure 2   |
| DW-AV-704-C23-276                                       | \$95.00 |                                           |                  |          | N.C.            | PNP   | M8 with 0.2 m (0.66 ft) cable | Diagram 4 | Figure 2   |

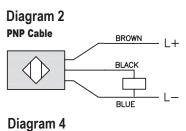
<sup>\*</sup> IO-Link model

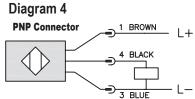
Diagram 1

**NPN** Cable

#### **Wiring Diagrams**









## **DW Series 20 x 32mm Stainless Steel Proximity Sensors**

| DW Series 20 x 32mm Inductive Proximity Specifications |                                                                                                                                                                                                                                                 |  |  |  |  |  |
|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
|                                                        | DW-Ax-70x-C23                                                                                                                                                                                                                                   |  |  |  |  |  |
| Mounting Type                                          | Flush                                                                                                                                                                                                                                           |  |  |  |  |  |
| Nominal Sensing Distance                               | 7mm [0.276 in]                                                                                                                                                                                                                                  |  |  |  |  |  |
| Operating Distance                                     | -                                                                                                                                                                                                                                               |  |  |  |  |  |
| Material Correction Factors                            | See the Material influence table                                                                                                                                                                                                                |  |  |  |  |  |
| Output Type                                            | NPN or PNP, N.O., 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                                           | ≤2V                                                                                                                                                                                                                                             |  |  |  |  |  |
| Switching Frequency                                    | ≤ 180 Hz                                                                                                                                                                                                                                        |  |  |  |  |  |
| Differential Travel (% of Nominal Distance)            | ≤10%                                                                                                                                                                                                                                            |  |  |  |  |  |
| Repeat Accuracy                                        | 0.3 mm                                                                                                                                                                                                                                          |  |  |  |  |  |
| Ripple                                                 | ≤ 20%                                                                                                                                                                                                                                           |  |  |  |  |  |
| Time Delay Before Availability (tv)                    | ≤ 20ms                                                                                                                                                                                                                                          |  |  |  |  |  |
| Reverse Polarity Protection                            | Yes                                                                                                                                                                                                                                             |  |  |  |  |  |
| Short-Circuit Protection                               | Yes                                                                                                                                                                                                                                             |  |  |  |  |  |
| Operating Temperature                                  | -25 to 85°C [-13 to 185°F]                                                                                                                                                                                                                      |  |  |  |  |  |
| Protection Degree (DIN 40050)                          | IP68 & IP69K                                                                                                                                                                                                                                    |  |  |  |  |  |
| Indication/Switch Status                               | The LED is located where the cable enters the sensor body. Indicator LED, Yellow, Solid: Indicates target is between 0 and 80% of Range Indicator LED, Yellow, Blinking: Indicates target is between 80 and 100% of Range and nearing max range |  |  |  |  |  |
| Housing Material                                       | Stainless steel V4A                                                                                                                                                                                                                             |  |  |  |  |  |
| Sensing Face Material                                  | Stainless steel V4A                                                                                                                                                                                                                             |  |  |  |  |  |
| Shock/Vibration                                        | IEC 60947-5-2/7.4                                                                                                                                                                                                                               |  |  |  |  |  |
| Tightening Torque                                      | -                                                                                                                                                                                                                                               |  |  |  |  |  |
| Weight                                                 | 47g [1.66 oz] with cable, 25g [0.88 oz] without cable                                                                                                                                                                                           |  |  |  |  |  |
| Connection                                             | 2m [6.5 ft] cable (PVC [polyvinyl chloride] $3 \times 0.14$ mm <sup>2</sup> $\approx 26$ AWG) or 0.2 m [0.66 ft] cable (PVC [polyvinyl chloride]) with M8 connection                                                                            |  |  |  |  |  |
| Minimum Mounting Distance (center to center)           | 60.0 mm [2.36 in]                                                                                                                                                                                                                               |  |  |  |  |  |
| 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 20 x 32mm Stainless Steel Proximity Sensors

#### **Dimensions**

mm [inches]

Figure 1 20.0 SENSING FACE 8.0 9.0 0.79 0.32 0.35 29.0 32.0 Ø3.4 1.14 1.26 0.13 (2X) Ø3.3 3.0 0.13 [0.12]13.0 0.51

