

# CR8 Series Inductive Proximity Sensors

## 8 x 8 mm Rectangular Metal – DC



- Compact 8 x 8 x 40 mm metal housing
- Axial cable or M8 quick-disconnect models; purchase cable separately
- Complete overload protection
- IP67 rated
- Screws included
- Lifetime warranty



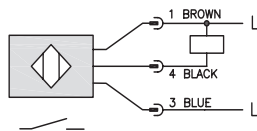
### CR8 Series 8x8 Rectangular DC Inductive Proximity Selection Chart

| Part Number               | Price    | Sensing Range        | Mounting   | Output State | Logic | Connection              | Wiring    | Dimensions |
|---------------------------|----------|----------------------|------------|--------------|-------|-------------------------|-----------|------------|
| Standard Distance         |          |                      |            |              |       |                         |           |            |
| <a href="#">CR8-AN-1A</a> | \$32.50  | 0-1.5 mm [0-0.06 in] | Flush      | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1   |
| <a href="#">CR8-AP-1A</a> | \$32.50  |                      |            |              | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1   |
| <a href="#">CR8-AN-1F</a> | \$32.50  |                      |            |              | NPN   | M8 [8mm] connector      | Diagram 1 | Figure 2   |
| <a href="#">CR8-AP-1F</a> | \$32.50  |                      |            |              | PNP   | M8 [8mm] connector      | Diagram 2 | Figure 2   |
| Extended Distance         |          |                      |            |              |       |                         |           |            |
| <a href="#">CR8-AN-2A</a> | \$45.00  | 0-2 mm [0-0.08 in]   | Flush      | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1   |
| <a href="#">CR8-AP-2A</a> | \$45.00  |                      |            |              | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1   |
| <a href="#">CR8-AN-2F</a> | \$45.00  |                      |            |              | NPN   | M8 [8mm] connector      | Diagram 1 | Figure 2   |
| <a href="#">CR8-AP-2F</a> | \$45.00  |                      |            |              | PNP   | M8 [8mm] connector      | Diagram 2 | Figure 2   |
| Triple Distance           |          |                      |            |              |       |                         |           |            |
| <a href="#">CR8-AN-3A</a> | \$102.00 | 3mm [0.118 in]       | Semi-flush | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1   |
| <a href="#">CR8-AP-3A</a> | \$102.00 |                      |            |              | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1   |
| <a href="#">CR8-AN-3F</a> | \$102.00 |                      |            |              | NPN   | M8 [8mm] connector      | Diagram 1 | Figure 2   |
| <a href="#">CR8-AP-3F</a> | \$102.00 |                      |            |              | PNP   | M8 [8mm] connector      | Diagram 2 | Figure 2   |

## Wiring Diagrams

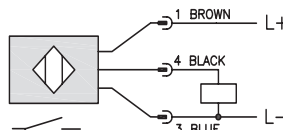
**Diagram 1**

**NPN output**



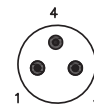
**Diagram 2**

**PNP output**



**Connector**

**M8 connector**



# CR8 Series Inductive Proximity Sensors

## CR8 Series 8x8 Rectangular DC Inductive Proximity Specifications

| Models   | Standard Distance                                  | Extended Distance | Triple Distance             |
|--|--|-------------------|-----------------------------|
| <b>Mounting Type</b>                               | Flush  | Flush             | Semi-flush                  |
| <b>Nominal Distance</b>                            | 1.5 mm [0.06 in]                                   | 2 mm [0.08 in]    | 3 mm [0.118 in]             |
| <b>Operating Distance</b>                          | NA   | NA                | NA                          |
| <b>Material Correction Factors</b>                 | See the <a href="#">Material influence table</a>   |                   |                             |
| <b>Output Type</b>                                 | NPN or PNP/N.O. only/3-wire                        |                   |                             |
| <b>Operating Voltage</b>                           | 10 to 30 VDC                                       |                   |                             |
| <b>No-load Supply Current</b>                      | ≤10 mA   |                   |                             |
| <b>Operating (Load) Current</b>                    | ≤200 mA  |                   |                             |
| <b>Off-state (Leakage) Current</b>                 | ≤10μA  |                   |                             |
| <b>Voltage Drop</b>                                | ≤2.0 V   |                   |                             |
| <b>Switching Frequency</b>                         | 1kHz   |                   |                             |
| <b>Differential Travel (% of Nominal Distance)</b> | ≤10%   |                   |                             |
| <b>Repeat Accuracy</b>                             | ≤5%  |                   |                             |
| <b>Ripple</b>                                      | m 20%  |                   |                             |
| <b>Time Delay Before Availability (tv)</b>         | 10ms   |                   | 50ms                        |
| <b>Reverse Polarity Protection</b>                 | Yes  |                   |                             |
| <b>Short-Circuit Protection</b>                    | Yes (switch auto-resets after overload is removed) |                   |                             |
| <b>Operating Temperature</b>                       | -25 to +70°C [-13 to 158°F]                        |                   |                             |
| <b>Protection Degree (DIN 40050)</b>               | IEC IP67   |                   |                             |
| <b>Indication/Switch Status</b>                    | Yellow (output energized)                          |                   |                             |
| <b>Housing Material</b>                            | Nickel-plated brass                                |                   | Chrome-plated brass         |
| <b>Sensing Face Material</b>                       | Polybutylene Terephthalate (PBT)                   |                   |                             |
| <b>Shock/Vibration</b>                             | See <a href="#">Proximity Sensor Terminology</a>   |                   |                             |
| <b>Tightening Torque</b>                           | 4 Nm [2.95 lb-ft]                                  |                   |                             |
| <b>Weight (cable/M8 connector)</b>                 | 43g [1.52 oz]/15g [0.53 oz]                        |                   | 54g [1.90 oz]/21g [0.74 oz] |
| <b>Connection</b>                                  | 2m [6.5 ft] axial cable or M8 [8mm] connector      |                   |                             |
| <b>Agency Approvals</b>                            | UL file E328811, CE                                |                   |                             |

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

## Dimensions

mm [inches]

Figure 1

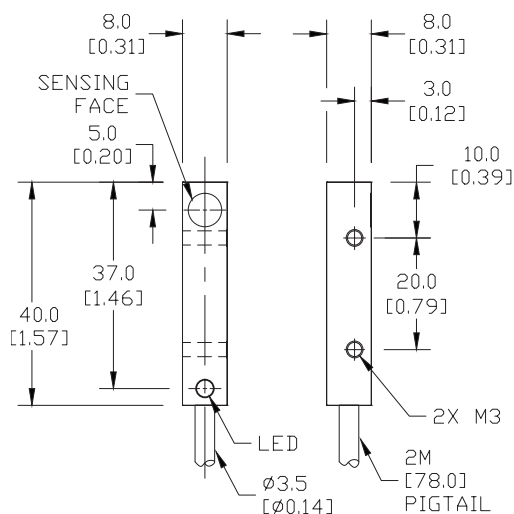


Figure 2

