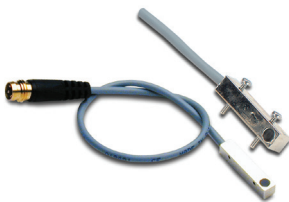


# CR5 Series Inductive Proximity Sensors



## 5 x 5 mm rectangular metal - DC

- Compact 5 x 5 x 25 mm metal housing
- Axial cable or M8 quick-disconnect models; purchase cable separately
- Complete overload protection
- IP67 rated
- Screws included
- Lifetime warranty



### CR5 Series 5x5 Rectangular DC Inductive Prox Selection Chart

| Part Number               | Price   | Sensing Range       | Mounting | Output State | Logic | Connection              | Wiring    | Dimensions |
|---------------------------|---------|---------------------|----------|--------------|-------|-------------------------|-----------|------------|
| Standard Distance         |         |                     |          |              |       |                         |           |            |
| <a href="#">CR5-AN-1A</a> | \$47.50 | 0.8 mm<br>[0.03 in] | Flush    | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1   |
| <a href="#">CR5-AP-1A</a> | \$47.50 |                     |          |              | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1   |
| <a href="#">CR5-AN-1F</a> | \$54.00 |                     |          |              | NPN   | M8 [8mm] connector      | Diagram 1 | Figure 2   |
| <a href="#">CR5-AP-1F</a> | \$54.00 |                     |          |              | PNP   | M8 [8mm] connector      | Diagram 2 | Figure 2   |
| Extended Distance         |         |                     |          |              |       |                         |           |            |
| <a href="#">CR5-AN-2A</a> | \$75.00 | 1.5 mm<br>[0.06 in] | Flush    | N.O.         | NPN   | 2m [6.5 ft] axial cable | Diagram 1 | Figure 1   |
| <a href="#">CR5-AP-2A</a> | \$75.00 |                     |          |              | PNP   | 2m [6.5 ft] axial cable | Diagram 2 | Figure 1   |
| <a href="#">CR5-AN-2F</a> | \$86.00 |                     |          |              | NPN   | M8 [8mm] connector      | Diagram 1 | Figure 2   |
| <a href="#">CR5-AP-2F</a> | \$86.00 |                     |          |              | PNP   | M8 [8mm] connector      | Diagram 2 | Figure 2   |

| Specifications                                     | Standard Distance                                  | Extended Distance |
|--|--|-------------------|
| <b>Mounting Type</b>                               | Flush  | Flush             |
| <b>Nominal Distance</b>                            | 0.8 mm (0.03 in)                                   | 1.5 mm (0.06 in)  |
| <b>Operating Distance</b>                          | 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>                         | 5kHz   | 3kHz              |
| <b>Differential Travel (% of Nominal Distance)</b> | ≤ 10%  |                   |
| <b>Repeat Accuracy</b>                             | ≤ 1.5%   |                   |
| <b>Ripple</b>                                      | ≤ 20%  |                   |
| <b>Time Delay Before Availability (tv)</b>         | 10ms   |                   |
| <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                                |                   |
| <b>Sensing Face Material</b>                       | Polyester  |                   |
| <b>Shock/Vibration</b>                             | See <a href="#">Proximity Sensor Terminology</a>   |                   |
| <b>Tightening Torque</b>                           | 1.5 Nm (1.1 lb-in)                                 |                   |
| <b>Weight</b>                                      | 26g [0.92 oz]                                      | 27g [0.95 oz]     |
| <b>Connection</b>                                  | 2m [6.5 ft] axial cable or M8 (8mm) connector      |                   |
| <b>Agency Approvals</b>                            | UL file E328811                                    |                   |

## Dimensions

mm [inches]

Figure 1

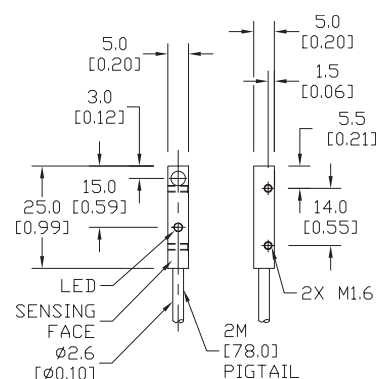
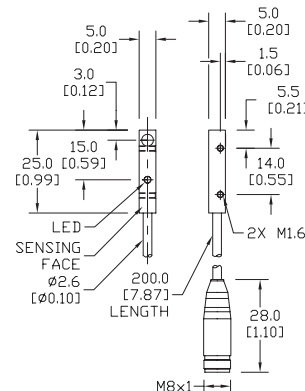
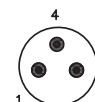


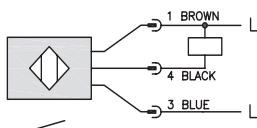
Figure 2



## Connector M8 connector



## Wiring Diagrams

Diagram 1  
NPN outputDiagram 2  
PNP output