

# 872C WorldProx™ 2-Wire DC

Plastic Face/Threaded Nickel-Plated Brass Barrel



872C DC Cable Style  
12, 18, 30mm



872C DC Micro  
Quick-Disconnect Style  
12, 18, 30mm



## Features

- 2-wire operation
- 2-conductor or 4-pin connection
- 10–30V DC
- Normally open or normally closed output
- Reverse polarity, short circuit, overload, false pulse, and transient noise protection
- UL listed, c–UL listed, and CE marked for all applicable directives

## Specifications

|                                    |  |
|------------------------------------|--|
| <b>Load Current</b>                | ≤100mA   |
| <b>Minimum Load Current</b>        | 5mA  |
| <b>Leakage Current</b>             | ≤0.9mA   |
| <b>Operating Voltage</b>           | 10–30V DC  |
| <b>Voltage Drop</b>                | ≤6V  |
| <b>Repeatability</b>               | ≤2%  |
| <b>Hysteresis</b>                  | 10% typical  |
| <b>Reverse Polarity Protection</b> | Incorporated   |
| <b>Transient Noise Protection</b>  | Incorporated   |
| <b>Short Circuit Protection</b>    | Incorporated   |
| <b>Overload Protection</b>         | Incorporated   |
| <b>False Pulse Protection</b>      | Incorporated   |
| <b>Approvals</b>                   | UL listed, c–UL certified for Canada, and CE marked for all applicable directives                                    |
| <b>Enclosure</b>                   | NEMA 1, 2, 3, 4, 6P, 12, 13 IP67 (IEC529)<br>Nickel-plated brass barrel, plastic face (PBT)                          |
| <b>Connections</b>                 | Cable: 2m (6.5ft) length, 4.4mm (0.175in) diameter,<br>2-conductor #26AWG PVC<br>Quick-Disconnect: 4-pin micro style |
| <b>LED</b>                         | Red: Output energized, 360° visibility   |
| <b>Operating Temperature</b>       | –25°C to +70°C (–13°F to +158°F)   |
| <b>Shock</b>                       | 30g, 11ms  |
| <b>Vibration</b>                   | 55Hz, 1mm amplitude, 3 planes  |

## Correction Factors

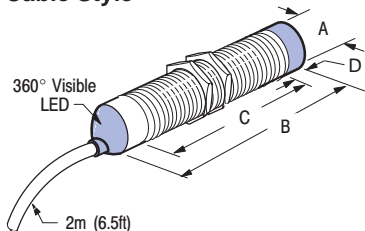
| Target Material | Correction Factor |
|-----------------|-------------------|
| Steel           | 1.0               |
| Stainless Steel | 0.7–0.8           |
| Brass           | 0.4–0.5           |
| Aluminum        | 0.3–0.4           |
| Copper          | 0.2–0.3           |

**Product Selection**

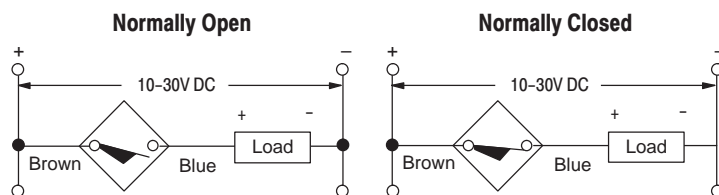
| Barrel Diameter                                   | Nominal Sensing Distance<br>mm (inches) | Shielded | Output Configuration | Switching Frequency (Hz) | Catalog Number  |                 |
|---|---|----------|----------------------|--------------------------|-----------------|-----------------|
|   |   |          |                      |                          | Cable Style     | Micro QD Style  |
| 12mm  | 3 (0.12)                                | Y        | N.O.                 | 2000                     | 872C-D3NE12-A2  | 872C-D3NE12-D4  |
|   |   |          | N.C.                 |                          | 872C-D3CE12-A2  | 872C-D3CE12-D4  |
|   | N                                       | N.O.     | 872C-D4NE12-A2       |                          | 872C-D4NE12-D4  |                 |
|   |   | N.C.     | 872C-D4CE12-A2       |                          | 872C-D4CE12-D4  |                 |
| 18mm  | 5 (0.20)                                | Y        | N.O.                 | 1000                     | 872C-D5NE18-A2  | 872C-D5NE18-D4  |
|   |   |          | N.C.                 |                          | 872C-D5CE18-A2  | 872C-D5CE18-D4  |
|   | N                                       | N.O.     | 872C-D8NE18-A2       |                          | 872C-D8NE18-D4  |                 |
|   |   | N.C.     | 872C-D8CE18-A2       |                          | 872C-D8CE18-D4  |                 |
| 30mm  | 10 (0.39)                               | Y        | N.O.                 | 500                      | 872C-D10NE30-A2 | 872C-D10NE30-D4 |
|   |   |          | N.C.                 |                          | 872C-D10CE30-A2 | 872C-D10CE30-D4 |
|   | N                                       | N.O.     | 872C-D15NE30-A2      |                          | 872C-D15NE30-D4 |                 |
|   |   | N.C.     | 872C-D15CE30-A2      |                          | 872C-D15CE30-D4 |                 |
| Recommended Standard QD Cordset (-2 = 2m (6.5ft)) |   |          |                      |                          |                 | 889D-F4AC-2     |

**Dimensions—mm (inches)**

**Cable Style**



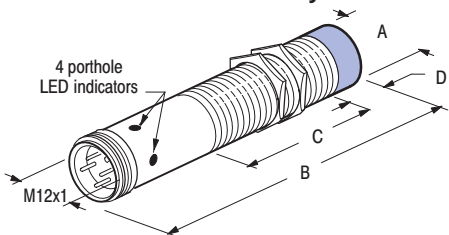
**Wiring Diagrams**



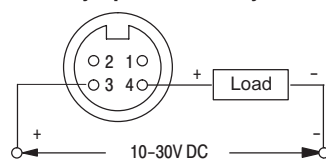
**Note:** Load can be switched to brown wire.

| Thread Size | Shielded | mm (inches) |             |             |             |
|-------------|----------|-------------|-------------|-------------|-------------|
|             |          | A           | B (max)     | C (min)     | D (max)     |
| M12 X 1     | Y        | 12 (0.47)   | 50.8 (2.00) | 46.7 (1.84) | —           |
|             | N        |             | 58.7 (2.31) |             | 7.9 (0.31)  |
| M18 X 1     | Y        | 18 (0.71)   | 50.8 (2.00) |             | 12.2 (0.48) |
|             | N        |             | 63.0 (2.48) |             |             |
| M30 X 1.5   | Y        | 30 (1.18)   | 50.8 (2.00) | —           |             |
|             | N        |             | 63.0 (2.48) | 12.2 (0.48) |             |

**Micro Quick-Disconnect Style**



**Normally Open or Normally Closed**



**Note:** Load can be switched to pin 3.

| Thread Size | Shielded | mm (inches) |             |             |             |
|-------------|----------|-------------|-------------|-------------|-------------|
|             |          | A           | B (max)     | C (min)     | D (max)     |
| M12 X 1     | Y        | 12.0 (0.47) | 65.0 (2.56) | 38.1 (1.50) | —           |
|             | N        |             | 72.4 (2.85) |             | 7.9 (0.31)  |
| M18 X 1     | Y        | 18.0 (0.71) | 65.0 (2.56) |             | 12.2 (0.48) |
|             | N        |             | 76.5 (3.01) |             |             |
| M30 X 1.5   | Y        | 30.0 (1.18) | 65.0 (2.56) | 46.7 (1.84) | —           |
|             | N        |             | 76.5 (3.01) |             | 12.2 (0.48) |