

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel



872C AC Cable Style
8 mm



872C AC Cable Style
12, 18, 30 mm



872C AC Mini
Quick-Disconnect Style
18, 30 mm



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

Features

- 2-wire operation
- 3-conductor or 3-pin connection
- 20...250V AC (20...240V AC for 8 mm)
- Normally open or normally closed output
- False pulse and transient noise protection
- Extended sensing distance on 18 mm unshielded models
- cULus Listed (12, 18, and 30 mm models only) and CE Marked (all models) for all applicable directives

Specifications

| | 8 mm | 12, 18, and 30 mm |
|-------------------------------|--|-------------------|
| Load Current, Max. | 100 mA | ≤300 mA |
| Load Current, Min. | 5 mA | |
| Inrush Current | ≤2 A | |
| Leakage Current | ≤2 mA | |
| Operating Voltage | 20...240V AC | 20...250V AC |
| Voltage Drop | ≤5V | |
| Repeatability | ≤5% | |
| Hysteresis | ≤15% typical | |
| Protection Type | False pulse, transient noise | |
| Certifications | cULus Listed (12, 18, and 30 mm models only) and CE Marked (all models) for all applicable directives | |
| Enclosure Type Rating | NEMA 1, 2, 3, 4, 12, 13; IP67 (IEC 529) Nickel-plated brass barrel | |
| Connection Type | Cable: 2 m (6.5 ft) length 3-conductor PVC Quick-Disconnect: 3-pin micro style 3-pin mini style | |
| LED | Red: output energized, 360° visibility | |
| Operating Temperature [C (F)] | -25...+70 ° (-13...+158 °) | |
| Shock | 30 g, 11 ms | |
| Vibration | 55 Hz, 1 mm amplitude, 3 planes | |

Correction Factors

| Target Material | Correction Factor |
|-----------------|-------------------|
| Steel | 1.0 |
| Stainless Steel | 0.9 |
| Brass | 0.5 |
| Aluminum | 0.45 |
| Copper | 0.4 |

QD Cordsets and Accessories

| Description | Page Number |
|--------------------------|---------------|
| Other Cordsets Available | 8-2 |
| Terminal Chambers | 8-2 |
| Mounting Brackets | 2-210...2-214 |
| End Caps | 2-220 |
| Mounting Nuts | 2-221...2-222 |

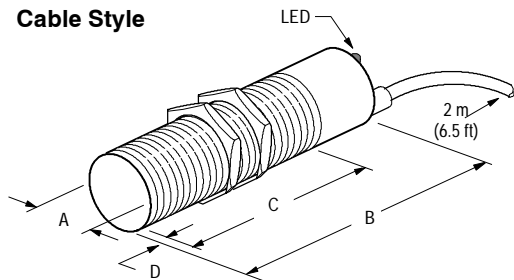


Product Selection

| Barrel Diameter | Nominal Sensing Distance [mm (in.)] | Shielded | Output Configuration | Switching Frequency [Hz] | Cat. No. | | |
|---|-------------------------------------|----------|----------------------|--------------------------|-----------------------|-----------------------|-----------------------|
| | | | | | Cable Style | Mini QD Style | Micro QD Style |
| 8 mm | 1.5 (0.06) | Y | N.O. | 25 | 872C-A1N8-A2 | — | — |
| | | | N.C. | | 872C-A1C8-A2 | — | — |
| | 2 (0.08) | N | N.O. | | 872C-A2N8-A2 | — | — |
| | | | N.C. | | 872C-A2C8-A2 | — | — |
| 12 mm | 2 (0.08) | Y | N.O. | 15 | 872C-A2N12-A2 | — | 872C-A2N12-R3 |
| | | | N.C. | | 872C-A2C12-A2 | — | 872C-A2C12-R3 |
| | 4 (0.16) | N | N.O. | | 872C-A4N12-A2 | — | 872C-A4N12-R3 |
| | | | N.C. | | 872C-A4C12-A2 | — | 872C-A4C12-R3 |
| 18 mm | 5 (0.20) | Y | N.O. | 15 | 872C-A5N18-A2 | 872C-A5N18-N3 | 872C-A5N18-R3 |
| | | | N.C. | | 872C-A5C18-A2 | 872C-A5C18-N3 | 872C-A5C18-R3 |
| | 10 (0.39) | N | N.O. | | 872C-A10N18-A2 | 872C-A10N18-N3 | 872C-A10N18-R3 |
| | | | N.C. | | 872C-A10C18-A2 | 872C-A10C18-N3 | 872C-A10C18-R3 |
| 30 mm | 10 (0.39) | Y | N.O. | 15 | 872C-A10N30-A2 | 872C-A10N30-N3 | 872C-A10N30-R3 |
| | | | N.C. | | 872C-A10C30-A2 | 872C-A10C30-N3 | 872C-A10C30-R3 |
| | 15 (0.59) | N | N.O. | | 872C-A15N30-A2 | 872C-A15N30-N3 | 872C-A15N30-R3 |
| | | | N.C. | | 872C-A15C30-A2 | 872C-A15C30-N3 | 872C-A15C30-R3 |
| Recommended standard QD cordset (-6F = 1.8 m (6 ft), -2 = 2 m (6.5 ft)) | | | | | 889N-F3AFC-6F | 889R-F3ECA-2 | |

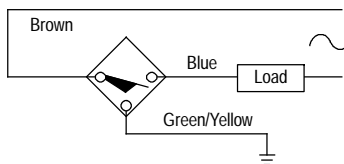
Approximate Dimensions [mm (in.)]

Cable Style

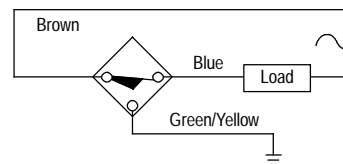


Wiring Diagrams

Normally Open



Normally Closed



NOTE: Load can be switched to brown wire.

| Thread Size | Shielded | [mm (in.)] | | | |
|-------------|----------|-------------|-------------|-------------|-------------|
| | | A | B | C | D |
| M8 X 1 | Y | 8.0 (0.32) | 47.0 (1.85) | 36.0 (1.42) | — |
| | N | 6.0 (0.24) | 47.0 (1.85) | 36.0 (1.42) | 6.0 (0.24) |
| M12 X 1 | Y | 12.0 (0.47) | 70.0 (2.76) | 60.0 (2.36) | — |
| | N | | | 54.0 (2.13) | 6.0 (0.24) |
| M18 X 1 | Y | 18.0 (0.71) | 60.0 (2.36) | 50.0 (1.96) | — |
| | N | | | 42.0 (1.65) | 8.0 (0.31) |
| M30 X 1.5 | Y | 30.0 (1.18) | 60.0 (2.36) | 50.0 (1.96) | — |
| | N | | | 38.0 (1.50) | 12.0 (0.47) |

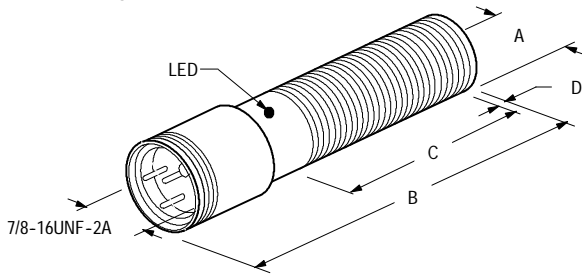
Inductive Proximity Sensors

872C WorldProx™ 2-Wire AC

Plastic Face/Threaded Nickel-Plated Brass Barrel

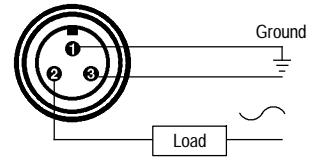
Approximate Dimensions [mm (in.)]

Mini QD Style



Wiring Diagrams

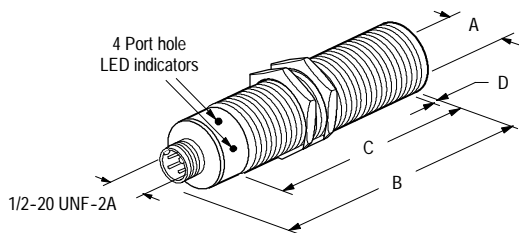
Normally Open or Normally Closed



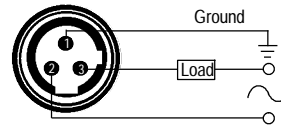
Note: Load can be switched to pin 3.

| Thread Size | Shielded | [mm (in.)] | | | |
|-------------|----------|-------------|-------------|-------------|-------------|
| | | A | B | C | D |
| M18 X 1 | Y | 18.0 (0.71) | 91.0 (3.58) | 52.0 (2.05) | — |
| | N | | | 44.0 (1.73) | 8.0 (0.31) |
| M30 X 1.5 | Y | 30.0 (1.18) | 91.0 (3.58) | 52.0 (2.25) | — |
| | N | | | 40.0 (1.57) | 12.0 (0.47) |

Micro Quick-Disconnect Style



Normally Open or Normally Closed



Note: Load can be switched to pin 2.

| Thread Size | Shielded | [mm (in.)] | | | |
|-------------|----------|-------------|-------------|-------------|-------------|
| | | A | B | C | D |
| M12 X 1 | Y | 12.0 (0.47) | 75.0 (2.95) | 45.0 (1.77) | — |
| | N | | | 40.0 (1.57) | 6.0 (0.24) |
| M18 X 1 | Y | 18.0 (0.71) | 80.0 (3.15) | 60.0 (2.36) | — |
| | N | | | 52.0 (2.05) | 8.0 (0.31) |
| M30 X 1.5 | Y | 30.0 (1.18) | 80.0 (3.15) | 50.0 (1.96) | — |
| | N | | | 38.0 (1.50) | 12.0 (0.47) |