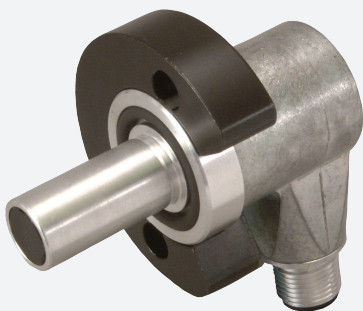




# Inductive sensor

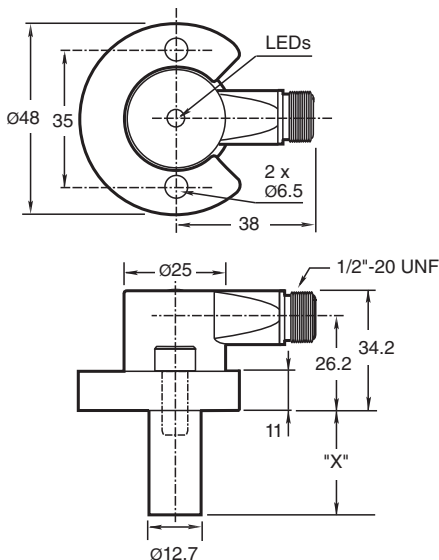
## NJ2-D-US-1.025-V12

- 2-wire AC/DC
- Weld Immune
- Sensing range 2 mm
- 3000 psi rating

### Cylinder Position Switch



## Dimensions



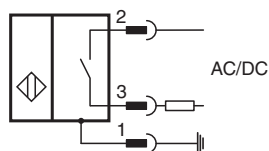
## Technical Data

| General specifications     |                |                    |  |
|----------------------------|----------------|--------------------|--|
| Switching function         |                | Normally open (NO) |  |
| Output type                |                | Two-wire           |  |
| Rated operating distance   | S <sub>n</sub> | 2 mm               |  |
| Installation               |                | flush              |  |
| Output polarity            |                | AC/DC              |  |
| Assured operating distance | S <sub>a</sub> | 0 ... 1.62 mm      |  |

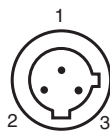
## Technical Data

|                                      |       |                                   |
|--------------------------------------|-------|-----------------------------------|
| Reduction factor $r_{Al}$            |       | 0.4                               |
| Reduction factor $r_{304}$           |       | 0.85                              |
| <b>Nominal ratings</b>               |       |                                   |
| Operating voltage                    | $U_B$ | 20 ... 250 V AC/20 ... 300 V DC   |
| Switching frequency                  | $f$   | 0 ... 20 Hz                       |
| Hysteresis                           | $H$   | 10 ... 20 % 15 typ.               |
| Reverse polarity protection          |       | yes                               |
| Short-circuit protection             |       | yes                               |
| Voltage drop                         | $U_d$ | $\leq 7$ V                        |
| Momentary current<br>(20 ms, 0.1 Hz) |       | max. 3 A                          |
| Operating current                    | $I_L$ | 8 ... 300 mA                      |
| Off-state current                    | $I_r$ | $< 1.7$ mA                        |
| Mag. Field strength, AC fields       |       | 250 mT                            |
| Mag. Field strength, DC fields       |       | 100 mT                            |
| <b>Limit data</b>                    |       |                                   |
| Operating pressure dynamically       |       | 3000 psi                          |
| <b>Indicators/operating means</b>    |       |                                   |
| LED green                            |       | Power on                          |
| LED red                              |       | Output status                     |
| LED red/green                        |       | Short circuit/overload indication |
| <b>Standard conformity</b>           |       |                                   |
| Standards                            |       | EN 60947-5-2                      |
| <b>Approvals and certificates</b>    |       |                                   |
| UL approval                          |       | cULus Listed, General Purpose     |
| CSA approval                         |       | cCSAus Listed, General Purpose    |
| <b>Ambient conditions</b>            |       |                                   |
| Ambient temperature                  |       | -25 ... 70 °C (-13 ... 158 °F)    |
| <b>Mechanical specifications</b>     |       |                                   |
| Connection type                      |       | Connector 1/2"-20 UN , 3-pin      |
| Degree of protection                 |       | IP67                              |
| Material                             |       | Housing: zinc<br>Probe: aluminum  |
| Note                                 |       | X = 1.025 in (26 mm)              |

## Connection



## Connection Assignment



Wire colors

|   |       |             |
|---|-------|-------------|
| 1 | GN    | (green)     |
| 2 | RD/BK | (red/black) |
| 3 | RD/WH | (red/white) |

Additional Information

**NPT Type Mounting Holes:**  
1000 and 3000 psi NPT Types:  
Mounting hole screw thread shall be 1/4" - 20.  
Minimum thread engagement depth is 0.250" (6.35 mm)  
Hole spacing is 35 mm center to center.

**Mounting Screws:**  
Standard 1000 and 3000 psi models use two, self-locking 1/4"-20 socket head cap screws (provided).  
Recommended tightening torque: 150 in lb (16.95 N-m).

**Important:** When using spacers, make certain to maintain the 0.250" (6.35 mm) minimum mounting screw thread engagement.

Diagram showing the mounting hole configuration for NPT Type sensors. It includes labels for 'Sensor through hole', 'Mounting hole (Ø)', and 'Mounting hole spacing'. The view is labeled 'Cylinder End Cap Overhead View'.

Accessories

|                              |                                          |
|------------------------------|------------------------------------------|
| <b>SPACER 0.160 TO 0.375</b> | : Spacer for cylinder switches<br>X.XXX" |
| <b>SPACER 0.380 TO 0.875</b> | : Spacer for cylinder switches<br>X.XXX" |

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