

## Inductive Sensors

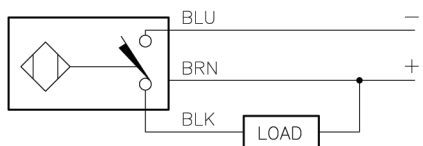


| Housing Style   | Part Number           | ID Number     | Features         | Sensing Range (mm) | Output          |
|---|-----------------------|---------------|------------------|--------------------|-----------------|
| <b>8 mm - Embeddable, Miniature Threaded Barrel, Potted-In Cable</b><br>                | Bi 2-EG08-AG41X       | S4562000      |                  | 2                  | 2-Wire DC       |
|   | Bi 2-EG08-AG41X/S1589 | S4562088      | weldguard        | 2                  |                 |
|   | Bi 1.5-EG08-AN6X      | S4602340      |                  | 1.5                | 3-Wire DC NPN   |
|   | Bi 1.5U-EG08-AN6X     | S4600510      | Uprox            | 1.5                |                 |
|   | Bi 2-EG08-AN6X        | S4602140      | Ext. Range       | 2                  |                 |
|   | Bi 2-EG08-AN6X/S1589  | S4602181      | weldguard        | 2                  |                 |
|   | Bi 2U-EG08-AN6X       | S4602035      | Uprox            | 2                  |                 |
|   | Bi 1.5-EG08-AN7X      | S1766110      | TTL Compatible   | 1.5                |                 |
|   | Bi 1.5-EG08-AP6X      | S4602240      |                  | 1.5                | 3-Wire DC PNP   |
|   | Bi 1.5U-EG08-AP6X     | S4600500      | Uprox            | 1.5                |                 |
|   | Bi 2-EG08-AP6X        | S4602040      | Ext. Range       | 2                  |                 |
|   | Bi 2-EG08-AP6X/S100   | S4602047      | High Temp. 100°C | 2                  |                 |
|   | Bi 2-EG08-AP6X/S957   | S4602008      | Flush Mount      | 2                  |                 |
|   | Bi 2-EG08-AP6X/S1589  | S4602085      | weldguard        | 2                  |                 |
|   | Bi 2-EG08-AP6X/S1610  | S4602086-1    | armorguard       | 2                  |                 |
|   | Bi 2U-EG08-AP6X       | S4602032      | Uprox            | 2                  |                 |
|   | Bi 1.5-EG08-Y1        | S1003500      |                  | 1.5                | 2-Wire DC NAMUR |
| Bi 2-EG08-AZ14X   | S4100001              |               | 2                | 2-Wire AC/DC       |                 |
| Bi 2-EG08-VP6X  | S1604610              | Comp. Outputs | 2                | 4-Wire DC PNP      |                 |
| <b>8 mm - Embeddable, Miniature Threaded Barrel, Potted-In Cable, Teflon Coated</b><br> | Bi 2-EGT08-AG41X      | S4602540      |                  | 2                  | 2-Wire DC       |
|   | Bi 1.5-EGT08-AP/S100  | S4602256      | High Temp. 100°C | 1.5                | 3-Wire DC PNP   |

| Voltage                  | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing | Face  | End Cap | Power LED | Output LED | Cable Length/<br>Cable Mat. | Wiring Diagram # | Wiring Diagrams      |
|--------------------------|----------------------|------------------------|----------------------|------------|---------|-------|---------|-----------|------------|-----------------------------|------------------|----------------------|
| 10-55 VDC                | 1000                 | ≤100                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 4                | <b>Diagram 1</b><br> |
|                          | 1000                 | ≤100                   | -25 to +70           | IP 67      | SS      | WG    | TROG    | N/A       | YE         | 2M/PUR                      | 4                |                      |
| 10-30 VDC                | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 1                | <b>Diagram 2</b><br> |
|                          | 2000                 | ≤150                   | -30 to +85           | IP 68      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 1                |                      |
|                          | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 1                |                      |
|                          | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | WG    | TROG    | N/A       | YE         | 2M/PUR                      | 1                |                      |
|                          | 2000                 | ≤150                   | -30 to +85           | IP 68      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 1                |                      |
| 10-30 VDC                | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 2                | <b>Diagram 3</b><br> |
|                          | 2000                 | ≤150                   | -30 to +85           | IP 68      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 2                |                      |
|                          | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 2                |                      |
|                          | 3000                 | ≤150                   | -25 to +100          | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 2                |                      |
|                          | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 2                |                      |
|                          | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | WG    | TROG    | N/A       | YE         | 2M/PUR                      | 2                |                      |
|                          | 2000                 | ≤150                   | -30 to +85           | IP 68      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 2                |                      |
| 5-30 VDC                 | 5000                 | Remote                 | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | N/A        | 2M/PUR                      | 3                | <b>Diagram 4</b><br> |
| 20-132 VAC<br>10-140 VDC | 20                   | ≤100                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 5                | <b>Diagram 5</b><br> |
| 10-30 VDC                | 3000                 | ≤150                   | -25 to +70           | IP 67      | SS      | PA 12 | TROG    | N/A       | YE         | 2M/PUR                      | 6                | <b>Diagram 6</b><br> |
| 10-55 VDC                | 1000                 | ≤100                   | -25 to +70           | IP 67      | TC      | PA 12 | TC      | N/A       | YE         | 2M/PUR                      | 4                |                      |
| 10-30 VDC                | 2000                 | ≤150                   | -25 to +100          | IP 67      | TC      | PA 12 | TC      | N/A       | YE         | 2M/PUR                      | 2                |                      |

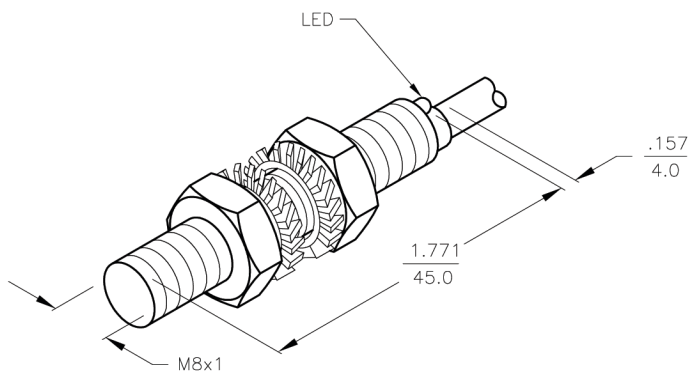
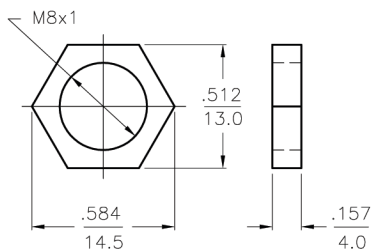
WIRING DIAGRAM

LOCKNUT LN-M8



OUTPUT: AN6X

SHORT-CIRCUIT AND OVERLOAD PROTECTED



SPECIFICATIONS

|   |   |
|---|---|
| OPERATING VOLTAGE                       | 10-30 VDC                               |
| RIPPLE                                  | ≤ 10%                                   |
| DIFFERENTIAL TRAVEL (HYSTERESIS)        | 3-15% (5% TYPICAL)                      |
| VOLTAGE DROP ACROSS CONDUCTING SENSOR   | ≤ 1.8 V at 150 mA                       |
| OUTPUT FUNCTION                         | NORMALLY OPEN 3-WIRE DC SELF-CONTAINED  |
| TTL COMPATIBLE                          | NO                                      |
| SHORT-CIRCUIT PROTECTED                 | YES                                     |
| TRIGGER CURRENT FOR OVERLOAD PROTECTION | ≥ 180 mA                                |
| CONTINUOUS LOAD CURRENT                 | ≤ 150 mA                                |
| OFF-STATE (LEAKAGE) CURRENT             | <10 μ A                                 |
| NO-LOAD CURRENT                         | 8.5-13 mA                               |
| TIME DELAY BEFORE AVAILABILITY          | ≤ 8 ms                                  |
| POWER-ON EFFECT PROTECTION              | INCORPORATED                            |
| REVERSE POLARITY PROTECTION             | INCORPORATED                            |
| WIRE-BREAK PROTECTION                   | INCORPORATED                            |
| PROTECTION AGAINST TRANSIENTS           | EN 60947-5-2                            |
| OPERATING TEMPERATURE (10% DRIFT)       | -25°C to +70°C (-13°F to +158°F)        |
| OPERATING TEMPERATURE                   | -30°C to +85°C (-13°F to +185°F)        |
| ENCLOSURE                               | MEETS NEMA 1, 3, 4, 6, 13 AND IEC IP67  |
| SHOCK                                   | 30 g, 11 ms                             |
| VIBRATION                               | 55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES) |
| LED FUNCTION                            | YELLOW: OUTPUT ENERGIZED                |
| SENSING RANGE                           | 1.5 mm = .059" (NOMINAL)                |
| SWITCHING FREQUENCY                     | 2000 Hz                                 |
| REPEATABILITY                           | ≤ 2% of NOMINAL SENSING RANGE           |
| EMBEDDABLE (SHIELDED)                   | YES                                     |

1. ALL DIMENSIONS ARE REFERENCE ONLY.

|                   |                 |                      |  |   |                            |   |                                  |
|-------------------|-----------------|----------------------|--|---|----------------------------|---|----------------------------------|
| RELATED DOCUMENTS |                 | 3RD ANGLE PROJECTION |  | THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED. |                            | <b>TURCK INC</b><br>High Technology Sensors and Automation Controls |                                  |
| 1.                |                 |                      | DRFT   | JB  | DATE                       | 3/18/97   | DESCRIPTION<br>Bi 1.5U-EG08-AN6X |
| 2.                |                 |                      | DSGN   |   | SCALE                      | NONE  |                                  |
| 3.                |                 | MATERIAL             | TOLERANCES UNLESS OTHERWISE SPECIFIED  |   | UNIT OF MEASUREMENT        |   | IDENTIFICATION NO.<br>S4600510   |
| 4.                |                 | STAINLESS STEEL      | .X ±0.02<br>.XX ±0.01<br>.XXX ±0.005<br>ANGLES ±1°<br>ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY |   | <b>INCH [ MILLIMETER ]</b> |   |                                  |
| FINISH            |                 |                      |  | DO NOT SCALE THIS DRAWING   |                            | REV   | A                                |
| A                 | DRAWING RELEASE | BY                   | JB   | DATE  | 3/18/97                    | ECO NO.   |                                  |
| REV               | DESCRIPTION     | BY                   |  | DATE  |                            | ECO NO.   |                                  |