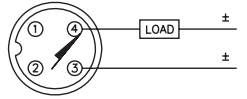
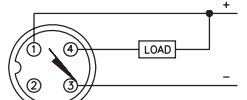
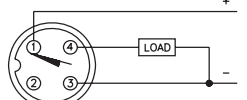
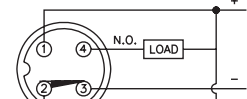
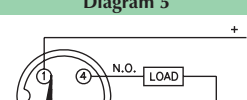
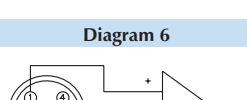
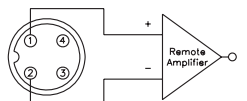


# Inductive Sensors



| Housing Style                                       | Part Number   | ID Number              | Features             | Sensing Range (mm)        | Output        |               |
|---|---|------------------------|----------------------|---------------------------|---------------|---------------|
| <b>30 mm - Embeddable, eurofast® Connection</b><br> | Bi 10-M30-AD4X-H1141  | T4417500               |                      | 10                        | 2-Wire DC     |               |
|   | Bi 12-M30-AD4X-H1141  | T4417041               | Extended Range       | 12                        |               |               |
|   | Bi 10-M30-AN6X-H1141  | T4617600               |                      | 10                        | 3-Wire DC NPN |               |
|   | Bi 10U-EM30-AN6X-H1141  | M1636350               | Uprox                | 10                        |               |               |
|   | Bi 10U-EM30H-AN6X2-H1141  | M1636407               | Uprox, Stoneface     | 10                        |               |               |
|   | Bi 10U-EM30H-AN6X2-H1141/S1589                                      | M1636490               | weldguard, Uprox     | 10                        |               |               |
|   | Bi 10U-M30-AN6X-H1141   | M1636150               | Uprox                | 10                        |               |               |
|   | Bi 10U-M30-AN6X2-H1141  | M1636155               | Uprox                | 10                        |               |               |
|   | Bi 12-EM30WD-AN6X-H1141   | M4614544               | Washdown             | 12                        |               |               |
|   | Bi 15-M30-AN6X-H1141  | T4618600               | Extended Range       | 15                        |               |               |
|   | Bi 15-EM30H-AN6X-H1141  | T4618692               | Extended Range       | 15                        |               |               |
|   | Bi 15-EM30H-AN6X-H1141/S1589  | T4618693               | weldguard            | 15                        |               |               |
|   | Bi 10-M30-AP6X-H1141  | T4617500               |                      | 10                        | 3-Wire DC PNP |               |
|   | Bi 10U-EM30-AP6X-H1141  | M1636340               | Uprox                | 10                        |               |               |
|   | Bi 10U-EM30H-AP6X2-H1141  | M1636406               | Uprox, Stoneface     | 10                        |               |               |
|   | Bi 10U-EM30H-AP6X2-H1141/S1589                                      | M1636491               | weldguard, Uprox     | 10                        |               |               |
|   | Bi 10U-M30-AP6X-H1141   | M1636140               | Uprox                | 10                        |               |               |
|   | Bi 10U-M30-AP6X2-H1141  | M1636145               | Uprox                | 10                        |               |               |
|   | Bi 12-EM30WD-AP6X-H1141   | M4614541               | Washdown             | 12                        |               |               |
|   | Bi 15-M30-AP6X-H1141  | T4618500               | Extended Range       | 15                        |               |               |
|   | Bi 15-EM30H-AP6X-H1141  | T4618592               | Extended Range       | 15                        |               |               |
|   | Bi 15-EM30H-AP6X-H1141/S1589  | T4618593               | weldguard            | 15                        |               |               |
|   | Bi 15-EM30H-AP6X-H1141/S1610  | T4618589               | Weld/armorguard      | 15                        |               |               |
|   | Bi 10-M30-VN4X-H1141  | T1571600               | Comp. Outputs        | 10                        | 4-Wire DC NPN |               |
|   | Bi 10U-M30-VN4X-H1141   | M1582352               | Uprox, Comp. Outputs | 10                        |               |               |
|   | Bi 15-M30-VN4X-H1141  | T4570711               | Comp. Outputs        | 15                        | 4-Wire DC PNP |               |
|   | Bi 10-M30-VP4X-H1141  | T1561600               | Comp. Outputs        | 10                        |               |               |
|   | Bi 10U-M30-VP4X-H1141   | M1582253               | Uprox, Comp. Outputs | 10                        |               |               |
|   | Bi 15-M30-VP4X-H1141  | T4570710               | Comp. Outputs        | 15                        | 2-Wire DC     |               |
|   | Bi 10-M30-Y1X-H1141   | M4020200               |                      | 10                        |               |               |
|   | <b>30 mm - Embeddable, eurofast Connection, Stainless Steel</b><br> | Bi 10-EM30F-AP6X-H1141 | M4614537             | Stainless Steel Front Cap | 10            | 3-Wire DC PNP |

| Voltage   | Switching Freq. (Hz) | Operating Current (mA) | Operating Temp. (°C) | Protection | Housing    | Face       | Power LED | Output LED | Mating Cordset | Wiring Diagram # | Wiring Diagrams  |            |   |           |   |   |
|-----------|----------------------|------------------------|----------------------|------------|------------|------------|-----------|------------|----------------|------------------|--|------------|---|-----------|---|---|
| 10-65 VDC | 500                  | ≤100                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4.2T-*      | 1                | <b>Diagram 1</b><br>  |            |   |           |   |   |
|           | 500                  | ≤100                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4.2T-*      | 1                |  |            |   |           |   |   |
| 10-30 VDC | 500                  | ≤200                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4T-*        | 2                | <b>Diagram 2</b><br>  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 68      | SS         | PA 12      | N/A       | YE         | RKV 4T-*       | 2                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 68      | SS         | SF         | GN        | YE         | RKV 4T-*       | 2                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 68      | SS         | WG         | GN        | YE         | RKG 4T-*/S600  | 2                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4T-*        | 2                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 67      | CPB        | PA 12      | GN        | YE         | RK 4T-*        | 2                |  |            |   |           |   |   |
|           | 1000                 | ≤200                   | -25 to +85           | IP 68, 69K | SS         | PVDF       | N/A       | YE         | RK 4T-*        | 2                |  |            |   |           |   |   |
|           | 300                  | ≤200                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4T-*        | 2                |  |            |   |           |   |   |
|           | 300                  | ≤200                   | -25 to +70           | IP 67      | SS         | SF         | N/A       | YE         | RKG 4T-*/S600  | 2                |  |            |   |           |   |   |
|           | 300                  | ≤200                   | -25 to +70           | IP 67      | SS         | WG         | N/A       | YE         | RKG 4T-*/S600  | 2                |  |            |   |           |   |   |
| 10-30 VDC | 500                  | ≤200                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4T-*        | 3                | <b>Diagram 3</b><br>  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 68      | SS         | PA 12      | N/A       | YE         | RKV 4T-*       | 3                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 68      | SS         | SF         | GN        | YE         | RKV 4T-*       | 3                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 68      | SS         | WG         | GN        | YE         | RKG 4T-*/S600  | 3                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4T-*        | 3                |  |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 67      | CPB        | PA 12      | GN        | YE         | RK 4T-*        | 3                |  |            |   |           |   |   |
|           | 1000                 | ≤200                   | -25 to +85           | IP 68, 69K | SS         | PVDF       | N/A       | YE         | RK 4T-*        | 3                |  |            |   |           |   |   |
|           | 300                  | ≤200                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4T-*        | 3                |  |            |   |           |   |   |
|           | 300                  | ≤200                   | -25 to +70           | IP 67      | SS         | SF         | N/A       | YE         | RKV 4T-*       | 3                |  |            |   |           |   |   |
|           | 300                  | ≤200                   | -25 to +70           | IP 67      | SS         | WG         | N/A       | YE         | RKG 4T-*/S600  | 3                |  |            |   |           |   |   |
| 10-65 VDC | 500                  | ≤200                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4.4T-*      | 4                | <b>Diagram 4</b><br> |            |   |           |   |   |
|           | 2000                 | ≤200                   | -30 to +85           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4.4T-*      | 4                |  |            |   |           |   |   |
|           | 500                  | ≤200                   | -25 to +70           | IP 67      | CPB        | PA 12      | N/A       | YE         | RK 4.4T-*      | 4                |  |            |   |           |   |   |
|           | 10-65 VDC            | 500                    | ≤200                 | -25 to +70 | IP 67      | CPB        | PA 12     | N/A        | YE             | RK 4.4T-*        |  | 5          | <b>Diagram 5</b><br> |           |   |   |
|           |                      | 2000                   | ≤200                 | -30 to +85 | IP 67      | CPB        | PA 12     | N/A        | YE             | RK 4.4T-*        |  | 5          |   |           |   |   |
|           |                      | 300                    | ≤200                 | -25 to +70 | IP 67      | CPB        | PA 12     | N/A        | YE             | RK 4.4T-*        |  | 5          |   |           |   |   |
|           |                      | 5-30 VDC               | 2000                 | Remote     | -25 to +70 | IP 67      | CPB       | PA 12      | N/A            | YE               |  | RK 4.21T-* |   | 6         | <b>Diagram 6</b><br> |   |
|           |                      |                        | 10-65 VDC            | 500        | ≤200       | -25 to +70 | IP 67     | CPB        | PA 12          | N/A              |  | YE         |   | RK 4.4T-* |   | 4 |
|           |                      |                        |                      | 2000       | ≤200       | -30 to +85 | IP 67     | CPB        | PA 12          | N/A              |  | YE         |   | RK 4.4T-* |   | 4 |
|           |                      | 10-30 VDC              | 180                  | ≤200       | -25 to +80 | IP 68, 69K | SS        | SS         | N/A            | YE               |  | RKV 4T-*   |   | 3         | <b>Diagram 6</b><br> |   |

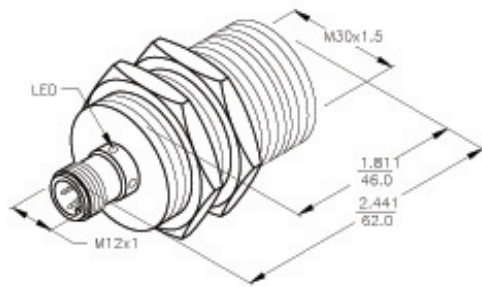
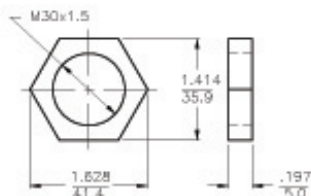
\* Length in meters.

WIRING DIAGRAM



SHORT-CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN-M30



SPECIFICATIONS

|   |   |
|---|---|
| OPERATING VOLTAGE                       | 10-30 VDC                               |
| RIPPLE                                  | ≤ 10%                                   |
| DIFFERENTIAL TRAVEL (HYSTERESIS)        | 3-15% (5% TYPICAL)                      |
| VOLTAGE DROP ACROSS CONDUCTING SENSOR   | ≤ 1.8 V at 200 mA                       |
| OUTPUT FUNCTION                         | NORMALLY OPEN 3-WIRE DC SELF-CONTAINED  |
| TTL COMPATIBLE                          | NO                                      |
| SHORT-CIRCUIT PROTECTED                 | YES                                     |
| TRIGGER CURRENT FOR OVERLOAD PROTECTION | ≥ 220 mA                                |
| CONTINUOUS LOAD CURRENT                 | ≤ 200 mA                                |
| OFF-STATE (LEAKAGE) CURRENT             | ≤ 0.1 mA                                |
| NO-LOAD CURRENT                         | ≤ 8 mA                                  |
| TIME DELAY BEFORE AVAILABILITY          | ≤ 8 ms                                  |
| POWER-ON EFFECT                         | PER IEC 947-5-2                         |
| REVERSE POLARITY PROTECTION             | INCORPORATED                            |
| WIRE-BREAK PROTECTION                   | INCORPORATED                            |
| PROTECTION AGAINST TRANSIENTS           | Per EN 60947-5-2                        |
| OPERATING TEMPERATURE (10% DRIFT)       | -25°C to +70°C (-13°F to +158°F)        |
| OPERATING TEMPERATURE (15% DRIFT)       | -30°C to +85°C (-22°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                |
| RATED OPERATING DISTANCE(Sn)            | 15 mm = .591" (NOMINAL)                 |
| SWITCHING FREQUENCY                     | 300 Hz                                  |
| REPEATABILITY                           | ≤ 2% of RATED OPERATING DISTANCE        |
| EMBEDDABLE (SHIELDED)                   | YES                                     |
| MATING PLUGS/CABLES                     | 4-PIN "EUROFAST" CONSTRUCTION           |

|   |                          |   |             |   |                  |
|---|--------------------------|---|-------------|---|------------------|
| RELATED DOCUMENTS<br>1.<br>2.<br>3.<br>4. | 3RD ANGLE PROJECTION<br> | 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 |                  |
|   | MATERIAL<br>BRASS BARREL | TOLERANCES UNLESS OTHERWISE SPECIFIED<br>0.0384in [1.00mm]  | DWT<br>US3R | CBM<br>NONE   | DATE<br>09/28/99 |
| FINISH<br>COPPER, NICKEL, CHROME PLATING  |                          | UNIT OF MEASUREMENT<br><b>INCH [ MILLIMETER ]</b>   |             | IDENTIFICATION NO.<br>T4618600                                      | REV<br>A         |
| A DRAWING RELEASE<br>REV DESCRIPTION      | CBM<br>BY DATE EDO NO.   | DO NOT SCALE THIS DRAWING   |             | FILE: T4618600  | SHEET 1 OF 1     |