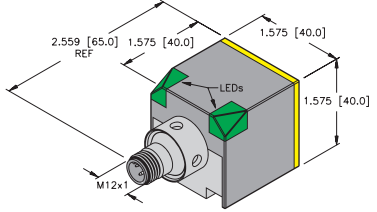
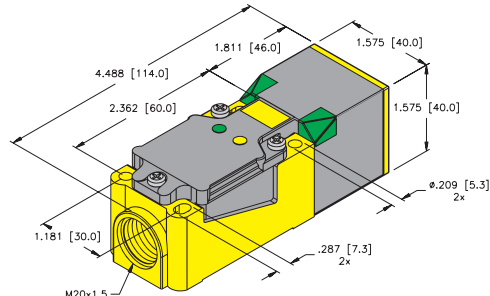
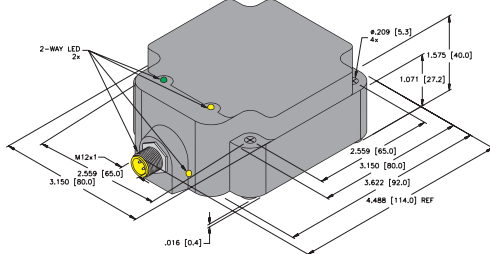
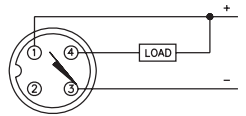
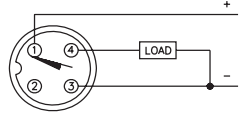
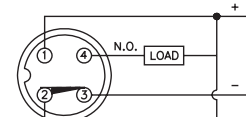
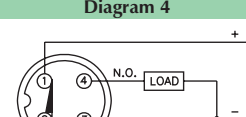
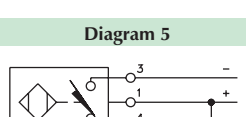
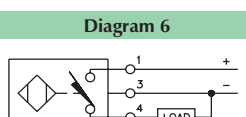



Inductive Sensors



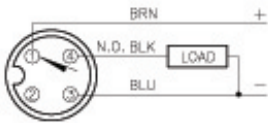
| Housing Style | Part Number | ID Number | Features | Sensing Range (mm) | Output | |
|---|---|-----------------------|-----------------------------|--------------------|---------------|---------------|
| CK40 - Embeddable/Nonembeddable, eurofast® Connection  | Bi20U-CK40-AN6X2-H1141 W/BS 2.1 | M1627231 | <i>Uprox+</i> | 20 | 3-Wire DC NPN | |
| | Bi30U-CK40-AN6X2-H1141 W/BS 4 | M1625820 | <i>Uprox+</i> | 30 | | |
| | Ni50U-CK40-AN6X2-H1141 W/BS 4 | M1625823 | <i>Uprox+</i> | 50 | | |
| | Bi20U-CK40-AP6X2-H1141 W/BS 2.1 | M1627288 | <i>Uprox+</i> | 20 | 3-Wire DC PNP | |
| | Bi30U-CK40-AP6X2-H1141 W/BS 4 | M1625829 | <i>Uprox+</i> | 30 | | |
| | Ni50U-CK40-AP6X2-H1141 W/BS 4 | M1625837 | <i>Uprox+</i> | 50 | | |
| | Ni50U-CK40-VN4X2-H1141 W/BS 4 | M1625806 | <i>Uprox+/Comp. Outputs</i> | 50 | 4-Wire DC NPN | |
| | Ni50U-CK40-VP4X2-H1141 W/BS 4 | M1538302 | <i>Uprox+/Comp. Outputs</i> | 50 | 4-Wire DC PNP | |
| | CP40 - Embeddable/Nonembeddable, Terminal Chamber  | Bi20U-CP40-AN6X2 | M1625828 | <i>Uprox+</i> | 20 | 3-Wire DC NPN |
| | | Bi20U-CP40-AP6X2 | M1625826 | <i>Uprox+</i> | 20 | 3-Wire DC PNP |
| Bi30U-CP40-AN6X2 | | M1625827 | <i>Uprox+</i> | 30 | 3-Wire DC NPN | |
| Bi30U-CP40-AP6X2 | | M1625825 | <i>Uprox+</i> | 30 | 3-Wire DC PNP | |
| Ni50U-CP40-AN6X2 | | M1625824 | <i>Uprox+</i> | 50 | 3-Wire DC NPN | |
| Ni50U-CP40-AP6X2 | | M1625842 | <i>Uprox+</i> | 50 | 3-Wire DC PNP | |
| Q80 - Embeddable/Nonembeddable, eurofast Connection  | | Bi50U-Q80-AN6X2-H1141 | M1608944 | <i>Uprox+</i> | 50 | 3-Wire DC NPN |
| | Ni70U-Q80-VN4X2-H1141 | M1625821 | <i>Uprox+/Comp. Outputs</i> | 70 | 4-Wire DC NPN | |
| | Bi50U-Q80-AP6X2-H1141 | M1608940 | <i>Uprox+</i> | 50 | 3-Wire DC PNP | |
| | Ni70U-Q80-VP4X2-H1141 | M1625833 | <i>Uprox+/Comp. Outputs</i> | 70 | 4-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 |
|-----------|----------------------|------------------------|----------------------|------------|---------|------|-----------|------------|----------------|------------------|---|
| 10-30 VDC | 250 | ≤200 | -20 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 1 | Diagram 1  |
| | 250 | ≤200 | -10 to +60 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 1 | |
| | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 1 | |
| 10-30 VDC | 250 | ≤200 | -20 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 2 | Diagram 2  |
| | 250 | ≤200 | -10 to +60 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 2 | |
| | 250 | ≤200 | -20 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 2 | |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4.4T-* | 3 | Diagram 3  |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4.4T-* | 4 | |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | N/A | 5 | Diagram 4  |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | N/A | 6 | |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | N/A | 5 | Diagram 5  |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | N/A | 6 | |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 1 | Diagram 6  |
| 10-65 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4.4T-* | 3 | |
| 10-30 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4T-* | 2 | Diagram 6  |
| 10-65 VDC | 250 | ≤200 | -25 to +70 | IP 68 | PBT | PBT | GN | YE | RK 4.4T-* | 4 | |

Uprox+

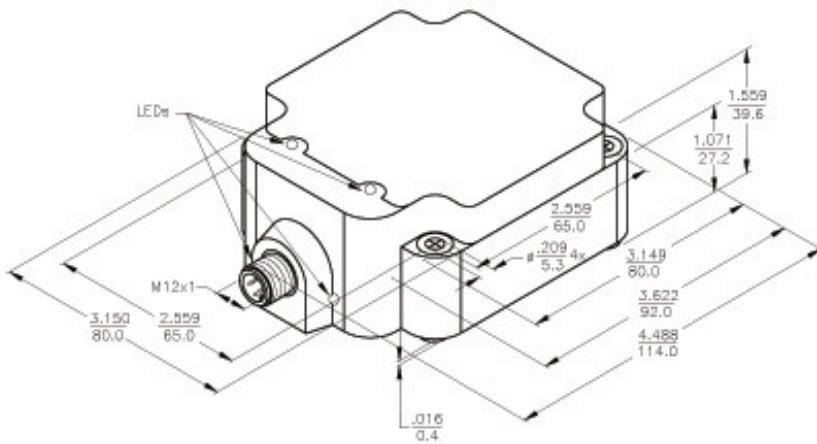
* Length in meters.

WIRING DIAGRAM



OUTPUT: AP6X2

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 200 mA |
| OUTPUT FUNCTION | NORMALLY OPEN |
| TTL COMPATIBLE | NO |
| SHORT-CIRCUIT PROTECTED | YES |
| TRIGGER CURRENT FOR OVERLOAD PROTECTION | ≥ 220 mA |
| CONTINUOUS LOAD CURRENT | ≤ 200 mA |
| OFF-STATE (LEAKAGE) CURRENT | < 10 μA |
| NO-LOAD CURRENT | 4.0-9.5 mA |
| TIME DELAY BEFORE AVAILABILITY | ≤ 80 ms |
| POWER-ON EFFECT PROTECTION | INCORPORATED |
| REVERSE POLARITY PROTECTION | INCORPORATED |
| WIRE-BREAK PROTECTION | INCORPORATED |
| PROTECTION AGAINST TRANSIENTS | EN 6047-5-2 |
| OPERATING TEMPERATURE | -30°C to +85°C (-22°F to +185°F) |
| ENCLOSURE | MEETS NEMA 1, 3, 4, 8, 13 AND IEC IP67 |
| SHOCK | 30 g, 11 ms |
| VIBRATION | 55 Hz, 1 mm AMPLITUDE (ALL 3 PLANES) |
| LED FUNCTION | YELLOW: OUTPUT ENERGIZED GREEN: POWER ON |
| SENSING RANGE | 50 mm = 1.969" (NOMINAL) |
| SWITCHING FREQUENCY | 250 Hz |
| REPEATABILITY | ≤ 2% OF RATED OPERATING DISTANCE |

| | | | |
|---|---|---|---|
| RELATED DOCUMENTS 1. 2. 3. 4. | 3RD ANGLE PROJECTION | THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED. | TURCK INC High Technology Sensors and Automation Controls |
| MATERIAL PBT-GF30-V0 PLASTIC | TOLERANCES UNLESS OTHERWISE SPECIFIED .X ± 0.02 .XX ± 0.01 .XXX ± 0.005 ANGLES ± 1° ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY | DWGT JBU USDR DATE 04/04/00 SCALE NONE | DESCRIPTION Bi50U-Q80-AP6X2-H1141 |
| REV B UPDATE SWITCHING FREQUENCY | RDS 07/12/05 1341D | UNIT OF MEASUREMENT INCH [MILLIMETER] | IDENTIFICATION NO. M1608940 |
| REV DESCRIPTION | BY DATE EDO NO. | DO NOT SCALE THIS DRAWING | FILE: M1608940 SHEET 1 OF 1 |