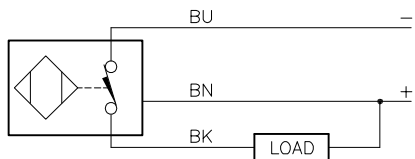


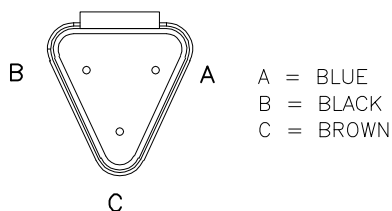
WIRING DIAGRAM



OUTPUT: RN6X

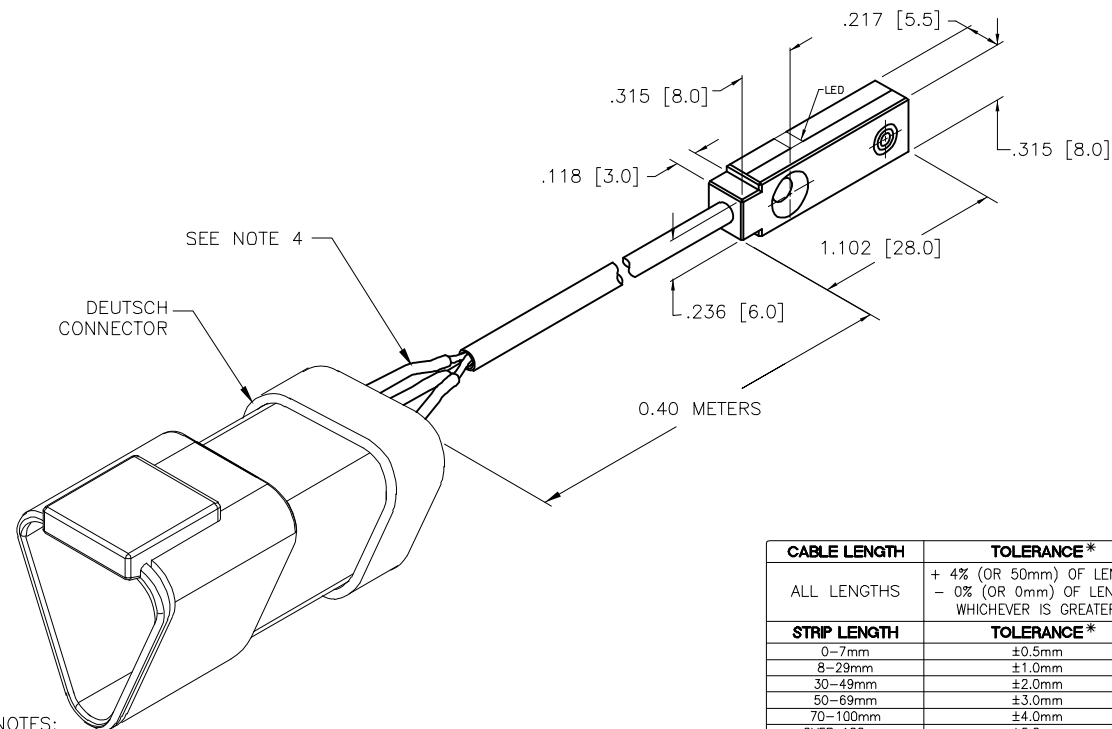
SHORT-CIRCUIT AND OVERLOAD PROTECTED

CONNECTOR END VIEW



SPECIFICATIONS

|   |   |
|---|---|
| OPERATING VOLTAGE                       | 10-30 VDC                                   |
| RIPPLE                                  | ≤10%  |
| DIFFERENTIAL TRAVEL (HYSTERESIS)        | 3-15% (5% TYPICAL)                          |
| VOLTAGE DROP ACROSS CONDUCTING SENSOR   | ≤1.8 V AT 100 mA                            |
| OUTPUT FUNCTION                         | NORMALLY CLOSED 3-WIRE DC SELF-CONTAINED    |
| TRIGGER CURRENT FOR OVERLOAD PROTECTION | ≥170 mA                                     |
| CONTINUOUS LOAD CURRENT                 | ≤150  |
| OFF-STATE (LEAKAGE) CURRENT             | <10 μA                                      |
| NO-LOAD CURRENT                         | ≤10 mA                                      |
| TIME DELAY BEFORE AVAILABILITY          | ≤8 ms                                       |
| POWER-ON EFFECT PROTECTION              | Per IEC 947-5-2                             |
| REVERSE POLARITY PROTECTION             | INCORPORATED                                |
| WIRE-BREAK PROTECTION                   | INCORPORATED                                |
| PROTECTION AGAINST TRANSIENTS           | PER EN 60947-5-2                            |
| ENCLOSURE                               | IEC IP67 (SENSOR ONLY)                      |
| 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)            |
| SHOCK                                   | 30 g, 11 ms                                 |
| VIBRATION                               | 55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)     |
| LED FUNCTION                            | GREEN: POWER ON<br>YELLOW: OUTPUT ENERGIZED |
| RATED OPERATING DISTANCE                | 2 mm = .079" (NOMINAL)                      |
| SWITCHING FREQUENCY                     | 2000 Hz                                     |
| REPEATABILITY                           | ≤2% OF RATED OPERATING DISTANCE             |
| EMBEDDABLE (SHIELDED)                   | YES   |



| CABLE LENGTH                 | TOLERANCE*  |
|------------------------------|---|
| ALL LENGTHS                  | + 4% (OR 50mm) OF LENGTH<br>- 0% (OR 0mm) OF LENGTH<br>WHICHEVER IS GREATER |
| STRIP LENGTH                 | TOLERANCE*  |
| 0-7mm                        | ±0.5mm  |
| 8-29mm                       | ±1.0mm  |
| 30-49mm                      | ±2.0mm  |
| 50-69mm                      | ±3.0mm  |
| 70-100mm                     | ±4.0mm  |
| OVER 100mm                   | ±5.0mm  |
| * UNLESS OTHERWISE SPECIFIED |   |

NOTES:

1. SENSOR MATERIAL:

HOUSING AND SENSING FACE: PP-GF20 PLASTIC

2. "/CS11128" DESIGNATES SENSOR TERMINATED WITH DEUTSCH CONNECTOR; CABLE LENGTH PER SOURCE DRAWING.

DEUTSCH PART NUMBERS:

CONNECTOR: DT04-3P-E005  
PIN: 0460-202-16141  
LOCKING WEDGE: W3P

3. RECEPTACLE COLOR TO BE BLACK.

4. PLACE HEAT SHRINK TUBING OVER INDIVIDUAL CONDUCTOR AND CRIMPED AREA OF PIN.

SOURCE DRAWING - FOR REFERENCE ONLY

|   |   |  |                                |  |          |
|---|---|--|--------------------------------|--|----------|
| RELATED DOCUMENTS<br>1.<br>2.<br>3.<br>4. | 3RD ANGLE PROJECTION<br>                          | THIS DRAWING IS CONFIDENTIAL AND THE PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED. |                                | 3000 CAMPUS DRIVE<br>MINNEAPOLIS, MN 55441<br>1-800-544-7769<br>(763) 553-7300<br>(763) 553-0708 fax<br>www.turck.us |          |
|   |   | DRFT RDS   | DATE 9/20/05                   | DESCRIPTION<br>BI2-Q5.5-RN6X/CS11128   |          |
| MATERIAL<br>SEE NOTES                     | APVD RT   | SCALE 1=1.0  | IDENTIFICATION NO.<br>16131961 |  |          |
| FINISH<br>SEE NOTES                       | UNIT OF MEASUREMENT<br><b>INCH [ MILLIMETER ]</b> |  |                                |  | REV<br>G |
| DO NOT SCALE THIS DRAWING                 |   | FILE: 16131961   |                                | SHEET 1 OF 1   |          |

|     |                                  |    |          |         |
|-----|----------------------------------|----|----------|---------|
| G   | UPDATE CONNECTOR, SPECS, & NOTES | NF | 07/31/24 | 80464   |
| REV | DESCRIPTION                      | BY | DATE     | ECO NO. |