



TURCK Sensors Part Number Key

| B i 10 U   |  |  |  | - | G T 30 |  |  |  | - | A DZ 30 X2 |  |  |  | Wiring Option*  | Special Option Code* |
|--|--|--|--|---|--------|--|--|--|---|------------|--|--|--|---|----------------------|
| <b>Mounting</b><br>B = embeddable<br>BID 2 = high pressure sensor<br>N = nonembeddable<br>S = slot<br>W = position   |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Load Dump</b><br>LD = load dump  |                      |
| <b>Principle of Operation</b><br>C = capacitive<br>CC = ESD immune<br>CF = capacitive (noise immune)<br>i = inductive<br>IM = inductive magnet operated<br>R = reed  |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Number of LEDs</b><br>(blank) = no LED's<br>X = 1 LED<br>X2 = 2 LED's  |                      |
| <b>Rated Operating Distance (mm)</b>   |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Voltage Range</b><br><b>AC/DC: (No SCP**)</b><br>3 = 20-250 VAC, 10-300 VDC<br>14 = 20-132 VAC, 10-140 VDC<br>31 = 20-250 VAC, 10-300 VDC, plastic barrel<br>33 = 35-250 VAC, grounded metal barrel<br><b>AC/DC: (Latched SCP)</b><br>30 = 20-250 VAC, 10-300 VDC<br>32 = 20-250 VAC, 10-300 VDC<br>40 = 20-140 VAC/DC, high off-state current<br><b>DC:</b><br>4 = 10-65 VDC, polarity protected, pulsed SCP**<br>6 = 10-30 VDC, polarity protected, pulsed SCP<br>7 = 10-30 VDC, TTL compatible<br>8 = 20-30 VDC, polarity protected, pulsed SCP<br>41 = 10-65 VDC, polarity protected, pulsed SCP<br>44 = 10-55 VDC<br>45 = 8.4-64 Volts<br>61 = 10-30 VDC, polarity protected, pulsed SCP<br>**SCP = short-circuit and overload protection |                      |
| <b>Sensing Characteristics</b><br>F = front sensing on Q26 and Q34 sensor<br>FE = ferrous only<br>NF = nonferrous only<br>R = ring sensor<br>S = side sensing on Q26 sensor<br>T = side sensing on Q34 sensor<br>U = <i>uprox</i> <sup>®</sup> sensor  |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Output</b><br>D = 2-wire DC (transistor output)<br>DZ = 2-wire AC/DC, (power MOSFET output)<br>LF = frequency output<br>G = 2-wire DC, low voltage drop<br>LI(LU) = linear analog output current (LI, 15-30 VDC)<br>or voltage (LU, 18-30 VDC)<br>LIU = linear analog output (current and voltage, 15-30 VDC)<br>N = NPN transistor (current sinking)<br>P = PNP transistor (current sourcing)<br>R = relay output<br>SIU = analog output (non-linear)<br>Z = 2-wire AC or 2-wire AC/DC  |                      |
| <b>Housing Material Modifier</b><br>E = stainless steel  |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Output Function</b><br>A = normally open (N.O.)<br>DA = dynamic output (ring sensor), normally open<br>F = connection programmable (N.O. or N.C.)<br>R = normally closed (N.C.)<br>U = jumper programmable (N.O. or N.C.)<br>V = complementary outputs: one N.O., one N.C.<br>Y0 = NAMUR output, requires switching amplifier<br>Y1 = NAMUR output, requires switching amplifier   |                      |
| <b>Housing Style</b><br><b>Barrel - Metal</b><br>G = full threading, generally chrome plated brass<br>GS = threaded side sensor<br>H = smooth, chrome plated brass or stainless steel<br>HS = smooth side sensor<br>M = partial threading, chrome plated brass<br><b>Barrel - Plastic</b><br>K = smooth<br>P = full threading<br>PT = PVDF, full threading<br>S = partial threading<br>SK = side sensing / slot sensor, plastic housing<br>T = right angle<br>TS = tube sensing<br><b>Rectangular</b><br>Q = metal or plastic, various rectangular styles<br>QV = plastic, variable position<br><b>Limit Switch</b><br>CA = <i>stubby</i> <sup>®</sup> , short aluminum housing, connector<br>CK = <i>stubby</i> <sup>®</sup> , short plastic housing, connector<br>CP = <i>combiprox</i> <sup>®</sup> , plastic housing, terminal chamber base with removable sensor<br><b>Slot</b><br>K = slot sensor, plastic housing<br><b>Ring</b><br>32SR = large plastic housing, static or dynamic output<br>Q = small rectangular plastic housing, static output<br>W = small plastic housing, dynamic output<br><i>permaprox</i> <sup>®</sup><br>A23 = metal, clamp-on; active face centered<br>AKT = plastic, clamp-on; active face centered<br>IKE = metal, clamp- or strap-on; active face on end<br>IKM = metal, clamp- or strap-on; active face on end<br>IKT = metal, clamp- or strap-on; active face centered<br>INT = plastic, groove mount or strap-on; active face on end<br>INR = plastic, groove mount; active face on end<br>KST = metal/plastic, strap-on; active face centered<br>NST = plastic, clamp-on; active face centered<br>PSM = metal/plastic, strap-on; active face on end<br>PST = plastic, strap-on; active face on end<br>QST = plastic, clamp-on; active face on end<br>UNT = new version of INT, plastic, groove mount or strap-on; active face on end<br><b>Cylinder Rotatable</b><br>CRS = cylinder rotatable sensor with probe, metal |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Secondary Barrel Modifier</b><br>CA= conduit adaptor<br>E = extended barrel length<br>EE = extra long barrel length<br>F = stainless steel face<br>FE = stainless steel face, extended barrel length<br>FM = stainless steel face, medium barrel length<br>H = <i>weldguard</i> <sup>®</sup> / <i>stoneface</i> <sup>®</sup><br>K = short barrel length<br>M = medium barrel length<br>S = Side sensing<br>SE = extended length (Q8SE only)<br>SK = right-angle terminal chamber<br>SR = straight terminal chamber<br>T = barb fitting at cable entry<br>TC = terminal chamber<br>WD = washdown IP67/IP68/IP69K<br>WDTC = washdown IP67/IP68/IP69K and terminal chamber  |                      |
| <b>Primary Barrel Modifier</b><br>T = teflon <sup>®</sup> coated   |  |  |  |   |        |  |  |  |   |            |  |  |  | <b>Housing Diameter or Height (mm) or CRS Probe Length (mm = Number/10)</b>   |                      |

**NOTE:** Part Number Keys are to assist in IDENTIFICATION ONLY.  
Verify New Part Numbers with Factory; Some Configurations Are Not Possible.  
\* See reverse side for Wiring Options and Special Option Codes



## Wiring Options

### A) Connectorized Sensor

Bi2-M12-AN6X - H1 1 4 1

| Connector Family   | Factory Code                         |
|--|--------------------------------------|
| B1 = <i>minifast</i> ®, 7/8"-16UN, metal, male                     | <b>examples:</b>                     |
| B2 = <i>minifast</i> ®, 7/8"-16UN, plastic, male                   | 0 = non-standard wiring              |
| B3 = <i>microfast</i> ®, 1/2"-20UNF, metal, male                   | 1 = standard wiring                  |
| H1 = <i>eurofast</i> ®, M12x1, metal or plastic, male              | 3 = N.C. DC output on pin 4 (for US) |
| V1 = <i>picofast</i> ®, snap and M8x1, metal, male (Q08 snap only) | 4 = N.O. 2 wire DC output on pin 4   |
| V2 = <i>picofast</i> ®, snap and M8x1, male (Q08 only)             |                                      |
| Connector/Sensor Transition  | Number of Pins                       |
| 1 = straight   | 3 = 3                                |
| 3 = straight with adapter  | 4 = 4                                |
| 4 = right-angle with adapter                                       | 5 = 5                                |

### B) Potted Cable

Bi2-G12-AN6X 7M

| Cable Length                        |
|-------------------------------------|
| (blank) = 2 meter cable             |
| 7M = 7 meter cable                  |
| *M = custom cable lengths available |

### C) Potted Cable with Molded Connector

Bi2-G12-Y0X - 0.2M - RS 4.21T

| Cable Length                        | Standard Cordset Connector  |
|-------------------------------------|---|
| <b>examples:</b>                    | <b>AC:</b> RSM 30 = <i>minifast</i> , 7/8"-16UN, metal, male, 3-conductor       |
| 0.2M = 0.2 meters (minimum)         | SB 3T = <i>microfast</i> , 1/2"-20UNF, metal, male, 3-conductor                 |
| 2M = 2 meters                       | <b>DC:</b> RS 4T = <i>eurofast</i> , M12x1, metal or plastic, male, 3-conductor |
| *M = custom cable lengths available | RS 4.2T = <i>eurofast</i> , M12x1, metal or plastic, male, 2-conductor          |
|                                     | RS 4.21T = <i>eurofast</i> , M12x1, metal or plastic, male, NAMUR, 2-conductor  |
|                                     | RS 4.4T = <i>eurofast</i> , M12x1, metal or plastic, male, 4-conductor          |
|                                     | RSM 40 = <i>minifast</i> , 7/8"-16UN, metal, male, 4-conductor                  |
|                                     | PSG 3 = <i>picofast</i> , snap, plastic, male, 3-conductor                      |
|                                     | PSG 3M = <i>picofast</i> , M8x1, metal, male, 3-conductor                       |

## Special Option Codes

### Option Codes for Special or Custom-Built Sensors

Bi 2-S12-AN7X /S100 OR Bi10R-W30-DAN6X-H1141 /F2

| examples:   | example:                             |
|---|--------------------------------------|
| /S34 = weld field immune  | /F2 = alternate oscillator frequency |
| /S90 = PUR cable  |                                      |
| /S97 = -40°C (-40°F) operating temperature  |                                      |
| /S100 = +100°C (+212°F) operating temperature   |                                      |
| /S120 = +120°C (+248°F) operating temperature   |                                      |
| /S139 = submersible   |                                      |
| /S250 = without potentiometer (capacitive only)                                       |                                      |
| /S907 = +160°C (+320°F) operating temperature   |                                      |
| /S1589 = barrel sensors with <i>weldguard</i> ® laminate                              |                                      |
| /S1590 = CA40 sensor with <i>weldguard</i> ® laminate                                 |                                      |
| /S1610 = barrel sensors with <i>armorguard</i> sleeve and <i>weldguard</i> ® laminate |                                      |
| /S1751 = FM2 approved   |                                      |