

Sensors Part Number Key

B	i	10	U	-	G	T	30	-	A	DZ	30	X2	Wiring Option*	Special Option Code*
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Mounting

- B = embeddable
- BID = high pressure sensor
- N = nonembeddable
- S = slot
- W = position

Principle of Operation

- C = capacitive
- CC = ESD immune
- CF = capacitive (noise immune)
- CT = teach programmable
- I = inductive
- IM = inductive magnet operated
- R = reed

Rated Operating Distance (mm)

Sensing Characteristics

- F = front sensing on Q26 and Q34 sensor
- FE = ferrous only
- NF = nonferrous only
- R = ring sensor
- S = side sensing on Q26 sensor
- T = top sensing on Q34 sensor
- U = Uprox® sensor

Housing Material Modifier

- E = stainless steel

Housing Style

Barrel - Metal

- G = full threading, generally chrome plated brass
- GS = threaded side sensor
- H = smooth, chrome plated brass or stainless steel
- HS = smooth side sensor
- M = partial threading, chrome plated brass

Barrel - Plastic

- K = smooth
- P = full threading
- S = partial threading
- SK = side sensing / slot sensor, plastic housing
- T = right angle
- TS = tube sensing

Rectangular

- Q = metal or plastic, various rectangular styles
- QV = plastic, variable position
- QF = plastic rectangular style

Limit Switch

- CA = Stubby®, short aluminum housing, connector
- CK = Stubby®, short plastic housing, connector
- CP = Combiprox®, plastic housing, terminal chamber

Slot

- K = slot sensor, plastic housing

Ring

- 32SR = large plastic housing, static or dynamic output
- Q = small rectangular plastic housing, static output
- W = small plastic housing, dynamic output

Permaprox Cylinder Sensors®

- AKT = plastic, clamp-on; active face centered
- IKE = metal, clamp- or strap-on; active face on end
- IKM = metal, clamp- or strap-on; active face on end
- IKT = metal, clamp- or strap-on; active face centered
- UNT = plastic, groove mount or strap-on; active face on end
- UNR = plastic, groove mount; active face on end
- KST = metal/plastic, strap-on; active face centered
- NST = plastic, clamp-on; active face centered
- PSM = metal/plastic, strap-on; active face on end
- PST = plastic, strap-on; active face on end

Cylinder Rotatable

- CRS = cylinder rotatable sensor with probe, metal

Primary Barrel Modifier

- T = PTFE coated

Additional Features

- LD = load dump
- T = teach buttons

Number of LEDs

- (blank) = no LEDs
- X = 1 LED
- X2 = 2 LEDs
- X3 = 3 LEDs

Voltage Range

AC/DC: (No SCP**)

- 3 = 20-250 VAC, 10-300 VDC
- 14 = 20-132 VAC, 10-140 VDC
- 31 = 20-250 VAC, 10-300 VDC, plastic barrel
- 33 = 20-250 VAC, 10-300 VDC, grounded metal barrel, 100 mA

AC/DC: (Latched SCP)

- 30 = 20-250 VAC, 10-300 VDC 400 mA
- 32 = 20-250 VAC, 10-300 VDC 400 mA

DC:

- 4 = 10-65 VDC, polarity protected, pulsed SCP**
- 5 = 5 VDC
- 6 = 10-30 VDC, polarity protected, pulsed SCP
- 7 = 10-30 VDC, TTL compatible
- 8 = 20-30 VDC, polarity protected, pulsed SCP
- 41 = 10-55 VDC, polarity protected, pulsed SCP
- 44 = 10-55 VDC
- 45 = 8.4-64 VDC

**SCP = short-circuit and overload protection

Output

- D = 2-wire DC (transistor output)
- DZ = 2-wire AC/DC, (power MOSFET output)
- LF = frequency output
- G = 2-wire DC, low voltage drop
- LI(LU) = linear analog output current (LI, 15-30 VDC) or voltage (LU, 18-30 VDC)
- LIU = linear analog output (current and voltage, 15-30 VDC)
- N = NPN transistor (current sinking)
- P = PNP transistor (current sourcing)
- R = relay output
- SIU = analog output (non-linear)
- Z = 2-wire AC or 2-wire AC/DC

Output Function

- A = normally open (N.O.)
- DA = dynamic output (ring sensor), normally open
- F = connection programmable (N.O. or N.C.)
- R = normally closed (N.C.)
- U = programmable (N.O. or N.C.)
- V = complementary outputs: one N.O., one N.C.
- Y0 = NAMUR output, requires switching amplifier
- Y1 = NAMUR output, requires switching amplifier, ATEX Approved

Secondary Barrel Modifier

- CA = conduit adaptor
- E = extended barrel length
- EE = extra long barrel length
- F = stainless steel face
- FE = stainless steel face, extended barrel length
- FM = stainless steel face, medium barrel length
- H = Stoneface®
- K = short barrel length
- M = medium barrel length
- S = side sensing
- SE = extended length (Q8SE only)
- SK = right-angle terminal chamber
- SR = straight terminal chamber
- T = barb fitting at cable entry
- TC = terminal chamber
- WD = washdown IP67/IP68/IP69K
- WDTC = washdown IP67/IP68/IP69K and terminal chamber

Housing Diameter or Height (mm) or CRS Probe Length (mm = Number/10)

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

- B1 = Minifast®, 7/8"-16UN, metal, male
- B2 = Minifast®, 7/8"-16UN, plastic, male
- B3 = Microfast®, 1/2"-20UNF, metal, male
- H1 = Eurofast®, M12x1, metal or plastic, male
- V1 = Picofast®, snap and M8x1, metal, male (Q08 snap only)
- V2 = Picofast®, snap and M8x1, male (Q08 only)

Connector/Sensor Transition

- 1 = straight
- 3 = straight with adapter
- 4 = right angle with adapter

Factory Code

- 0 = non-standard wiring
- 1 = standard wiring
- 3 = N.C. DC output on pin 4 (for US)
- 4 = N.O. 2 wire DC output on pin 4

Number of Pins

- 3 = 3
- 4 = 4
- 5 = 5

B) Potted Cable

Bi2-M12-AN6X 7M

Cable Length

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

C) Potted Cable with Molded Connector

Bi2-M12-AN6X - 0.2 - RS 4.21T

Cable Length

- 0.2 = 0.2 meters (minimum)
- 2M = 2 meters
- *M = custom cable lengths available

Standard Cordset Connector

- AC:** RSM30 = Minifast, 7/8"-16UN, metal, male, 3-conductor
- SB3T = Microfast, 1/2"-20UNF, metal, male, 3-conductor
- DC:** RS4T = Eurofast, M12x1, metal or plastic, male, 3-conductor
- RS4.2T = Eurofast, M12x1, metal or plastic, male, 2-conductor
- RS4.21T = Eurofast, M12x1, metal or plastic, male, NAMUR, 2-conductor
- RS4.4T = Eurofast, M12x1, metal or plastic, male, 4-conductor
- RSM40 = Minifast, 7/8"-16UN, metal, male, 4-conductor
- PSG3 = Picofast, snap, plastic, male, 3-conductor
- PSG3M = Picofast, 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

- /S34 = weld field immune
- /S90 = TPU 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 Weldguard® laminate
- /S1590 = CA40 sensor with Weldguard laminate
- /S1610 = barrel sensors with Armorguard® sleeve and Weldguard laminate
- /S1751 = C1D2 approved
- /S1144 = PTFE tubing
- /S1154 = PTFE tubing/Weldguard sensor

/F2 = alternate oscillator frequency