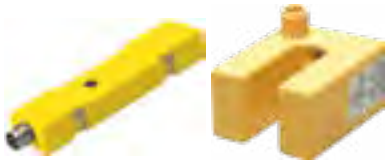


Specialty Sensor Section

Specialty Sensors			
			
Housing	Barrel and Rectangular	12, 18, and 30 mm	40, 80, and 160 mm
Features	Washdown Uprox+	High Temperature Sensors	High Temperature Sensors
Pages	C9 - 14	C15 - 20	C21

Specialty Sensors			
			
Housing	8, 12, 18, and 30 mm	Barrel and Rectangular	30 mm
Features	Stainless Steel Face Sensors	Mobile Equipment Sensors	High Current Solid State Sensors
Pages	C23 - 32	C33 - 36	C37

Specialty Sensors			
			
Housing	12, 18, and 30 mm	Variable	Variable
Features	FM, Class I Div 2 Approved Sensors	Ring Sensing	Tube and Slot Sensing
Pages	C39	C41 - 44	C45 - 48

We reserve the right to make technical alterations without prior notice.



Specialty Sensor Selection Guide

Specialty Sensors			
			
Housing	12 mm	80 and 130 mm	130 mm
Features	Weld Nut Detection Sensor	Edge Detection Sensing	Can Line Sensing
Pages	C49	C51 - 54	C55

Specialty Sensors			
			
Housing	8, 12, and 18 mm	18 mm	Barrel and Rectangular
Features	Magnetic Inductive Sensing	Submersible	Selective Metal Sensing
Pages	C57 - 60	C61	C63 - 66

Specialty Sensors		
		
Housing	12 and 18 mm	18 and 30 mm
Features	In Cylinder Sensor	Rotational Speed Monitoring
Pages	C67	C69

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Specialty Sensors

Specialty Sensor Part Number Key

B	I	10	U	-	G	T	30	-	A	DZ	30	X2	Wiring Option*	Special Option Code**
Mounting B = embeddable BID = high pressure sensor N = nonembeddable S = slot Principle of Operation I = inductive IM = inductive magnet operated Rated Operating Distance (mm) Sensing Characteristics FE = ferrous only R = ring sensor U = Uprox® Sensor Housing Material Modifier E = stainless steel Housing Style Barrel - Metal G = full threading, generally chrome plated brass H = smooth, chrome plated brass or stainless steel M = partial threading, chrome plated brass Barrel - Plastic K = smooth P = full threading S = partial threading Rectangular Q = metal or plastic, various rectangular styles Limit Switch CA = stubby®, short aluminum housing, connector CK = stubby®, short plastic housing, connector 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 Primary Barrel Modifier T = PTFE® coated Housing Diameter or Height (mm)										Number of LEDs (blank) = no LEDs X = 1 LED X2 = 2 LEDs Voltage Range AC/DC: (No SCP**) 3 = 20-250 VAC, 10-300 VDC AC/DC: (Latched SCP) 30 = 20-250 VAC, 10-300 VDC 400 mA DC: 4 = 10-65 VDC, polarity protected, pulsed SCP** 6 = 10-30 VDC, polarity protected, pulsed SCP 44 = 10-55 VDC 45 = 8.4-65 Volts Output D = 2-wire DC (transistor output) DZ = 2-wire AC/DC, (power MOSFET output) N = NPN transistor (current sinking) P = PNP transistor (current sourcing) Z = 2-wire AC or 2-wire AC/DC M = high current solid state relay Output Function A = normally open (N.O.) DA = dynamic output (ring sensor), normally open R = normally closed (N.C.) U = jumper 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 E = extended barrel length EE = extra long barrel length FE = stainless steel face, extended barrel length FM = stainless steel face, medium barrel length M = medium barrel length TC = terminal chamber WD = washdown IP67/IP68/IP69K F = stainless steel face, standard length				

NOTE:

Part number keys are to assist in identification only.

Verify new part numbers with factory; some configurations are not possible.

* See next page Wiring Options and Special Option Codes.

We reserve the right to make technical alterations without prior notice.



Specialty Sensor Part Number Key

Wiring Options*

A. Connectorized Sensor

Bi2 - M12 - AN6X2 - 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

Wiring Configuration

Example:
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 - G12 - AN6X 7M

Cable Length

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

Special Option Codes**

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

Example:

/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
/S907 = +160 °C (+320 °F) operating temperature
/S1009 = 250 ms internal off delay
/S1102 =+250 °C (+482 °F) operating temperature
/S1751 = approved for FM Class I, Div 2, groups A, B, C, and D

Example:

/F2 = alternate oscillator frequency

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Specialty Sensors

Uprox+ Washdown Sensors

The Uprox+ Washdown product family is with a full line of inductive sensors that senses all metals at the same range (no correction factor), extended temperature rating from -40 to +100 °C, robust construction with IP68 and IP69k sealing ratings, and housing materials compatible with common acidic and alkaline chemicals used in Food and Beverage applications.



Sensors with Extended Temperature Range

Turck offers sensors for applications that withstand extreme temperatures of -40 to +250 °C. Typically, these sensors are used in applications like cold storage facilities, metal foundries, glass making, outdoor applications, and in painting shops in the automotive industry.



We reserve the right to make technical alterations without prior notice.

Stainless Steel Face Sensors

Inductive sensors with one piece stainless steel faced barrels are ideal for applications where physical impact is common or where ingress through the sensing face is a concern. The sensors are available in barrel diameters from 8 mm to 30 mm, standard and extended sensing ranges, rated IP68/IP69K, with optional coatings for welding environments, and 2 and 3-wire designs.



Mobile Equipment Sensors

Position sensing applications in mobile equipment have different electrical requirements than what is common for industrial sensors. Turck designs and manufactures a diverse line of inductive sensors that meet or exceed the industry requirements for sealing (IP68/IP69K), load dump protection, resistance to shock, vibration, EMC immunity, extended temperature range, wide operating voltage, and extended sensing range.



Inductive Sensor with 6 A Rated Output

This 30 mm mobile equipment sensor uses a MOSFET component to switch up to 6 amps of current with either a normally open output or a complementary normally open and closed output in a stainless steel housing. The sensor can be configured as an embeddable or nonembeddable sensor.



Specialty Sensors

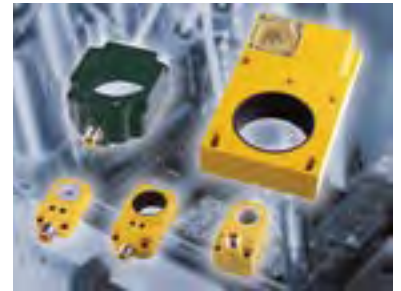
FM Class I Div 2

The new FM approval standard permits the use of quick disconnect with a lock fast accessory equipped sensor being used in Class I Div 2, Groups A, B, C, D. The ability to use quick disconnect will enable users to install sensors faster and at a lower cost than traditional conduit methods. We also offer approved cordsets with Eurofast or Minifast connectors (when used with a Lokfast guard). All cables have the ITC-ER rating. For applications where conduit is preferred, we offer sensors with potted-in ITC rated cables.



Inductive Ring Sensor

Turck offers a variety of ring sensor designs that detect a wide variety of target sizes, with sensor outputs to solve either static or dynamic part feeding applications. In addition to our six different ring sensor housings, Turck offers the TS12 Uprox®+ sensor, which senses all metals at the same range while functioning like a ring sensor but can be strapped onto a tube to simplify installation.



Inductive Slot Sensors

Turck's slot sensors incorporate a U-shaped design with the active sensing face between the two arms. If the object being detected moves into the U-shaped area, the sensor is actuated. Slot sensors are capable of securely detecting targets whose distance from the active face is not clearly defined upon side approach.



Weld Nut Sensors

Turck's magnetic weld nut sensors provide efficient and economical detection of weld nuts in automotive applications. The sensors detect ferromagnetic components, such as nuts, bushings and spacer sleeves, to ensure these components are present before robotic welding occurs. These sensors are less complex than existing devices that require additional software or electronics to detect the target.



Can and Edge Detection Sensor

Turck's Q130 sensor is designed for easy mounting on metal can conveying systems to help detect jam ups or lack of metal cans in the conveyor, while the CK4080 and CK40130 sensors are optimized to detect the edges of metal sheets commonly used in transfer presses found in automotive or white goods stamping applications.



Specialty Sensors

Inductive-Magnetic Proximity Sensors

Turck's line of BIM barrel sensors are designed to work with external magnets and can be used to solve a wide variety of sensing applications, especially where the user would like long sensing ranges (up to 90 mm with DMR31-15-5 magnet) in small housings, such as 8 or 12 mm.



Submersible Inductive Sensors

These sensors are rated for submersion in water depths up to 500 meters. The materials used to construct this 18 mm diameter sensor are seawater resistant. Available in a variety of sensing ranges and outputs.



Selective Metal Sensors

Standard inductive sensors sense all metals. Turck's family of selective metal inductive sensors offer a reliable solution for applications where the user wants to detect ferrous metals or non-ferrous metals only.



In-Cylinder Inductive Sensors

These inductive sensors are designed for use in a hydraulic cylinder to detect extended or retracted positions. Available in M12 or M18 barrels, these sensors can withstand static pressures up to 7,250 psi.



Rotational Speed Sensors

Rotational speed sensors are designed to work with a rotating metal target like a keyway or sprocket. These sensors feature a simple potentiometer for adjusting the set point and are ideal for monitoring applications where the user wants to monitor under speed or over speed conditions. If the speed is below the set point the output is off, and if the speed is above the set point the output turns on.

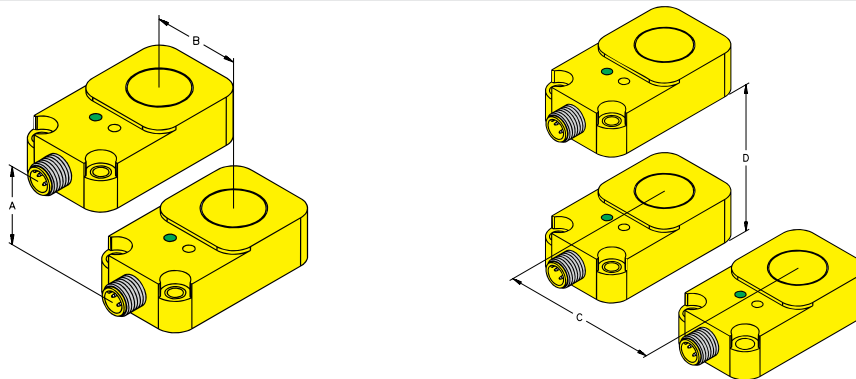


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Specialty Sensors

Ring and Tube Sensor Mounting Characteristics



Sensor Type	A	B	C	D
Bi6R-Q14	0	14	45	45
Bi6R-W30	120	6	120	120
Bi10R-Q14	30	14	45	45
Bi10R-W30	120	10	120	120
Bi15R-Q14	30	14	45	45
Bi15R-W30	120	15	120	120
Bi20R-Q14	30	14	45	45
Bi20R-W30	120	20	120	120
Ni20R-S32SR	150	150	150	150
Bi30R-Q20	40	20	55	55
Bi30R-W30	120	30	120	120
Ni40R-S32SR	150	150	150	150
Bi50R-Q80*	90	50	140	120
Ni65R-Q80*	90	65	140	150
Ni65R-S32SR	150	150	150	150
Ni100R-S32XL**	Consult data sheet	Consult data sheet	290	240
Ni20U-TS12*** (tube)	Consult data sheet	Consult data sheet	42	50

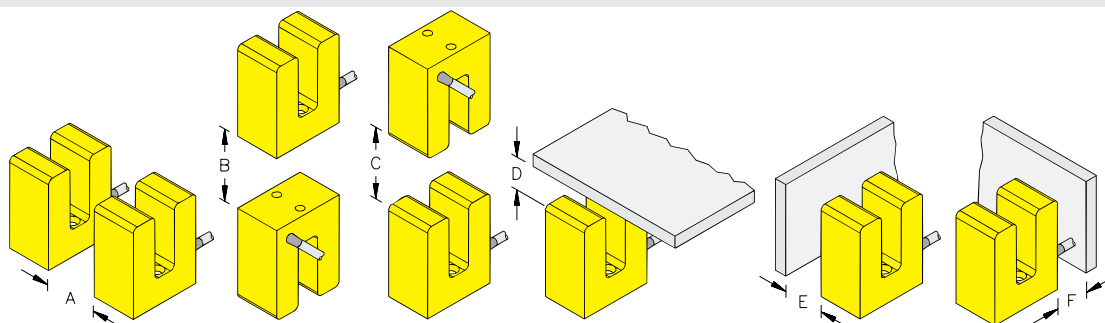
Dimensions are in mm.

* Do not use a metal mounting bracket.

** Sensitivity adjustment does affect the recommended mounting spacing. Please consult factory for assistance when using multiple sensors.

*** Spacing of multiple sensors depends on the actual number and orientation. Please contact factory for assistance.

Slot Sensor Mounting Characteristics



Sensor Type	A	B	C	D	E	F
Si3.5	15.00	5.00	15.00	0	0	0
Si5	10.00	0	5.00	0	0	0
Si15	30.00	10.00	30.00	5.00	5.00	5.00

Dimensions are in mm.

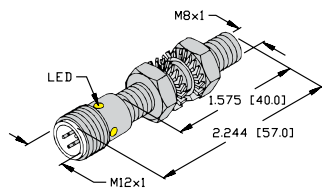
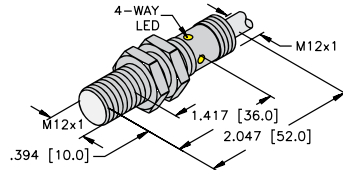
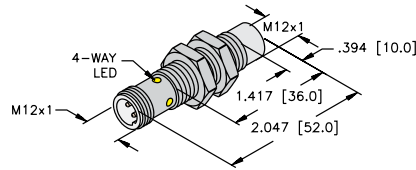
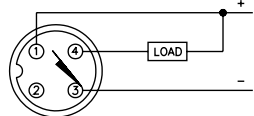
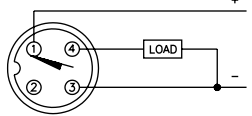
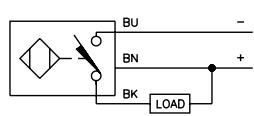
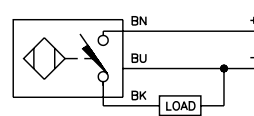
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Specialty Sensors



Specialty Sensors | Washdown

Threaded Metal Barrels with Cable or Connector and 3-Wire DC Outputs

Housing Style		Dimension Drawings		
	A		B	
8 mm - Embeddable, M12 Eurofast Connection		12 mm - Embeddable, M12 Eurofast Connection		
C	D		E	
				
12 mm - Nonembeddable, M12 Eurofast Connection				
12 mm - Embeddable, Potted-in Cable				
12 mm - Nonembeddable, Potted-in Cable				
Wiring Diagrams/Mating Cordsets				
1	2	3	4	
				
Mating Cordset: RKV 4T-*, RKV 4T-*/S90				
Mating Cordset: RKV 4T-*, RKV 4T-*/S90				
Mating Cordset: RKV 4T-*, RKV 4T-*/S90				
Mating Cordset: RKV 4T-*, RKV 4T-*/S90				
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)				
Ripple: ≤10%		Time Delay Before Availability: ≤8 ms		
Differential Travel (Hysteresis): 3-15% (5% typical)		Power-On Effect: Per IEC 947-5-2		
Voltage Drop Across Conducting Sensor: ≤1.8 V		Reverse Polarity Protection: Incorporated		
Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current		Wire-Break Protection: Incorporated		
≥170 mA on 150 mA Load Current		Transient Protection: Per EN 60947-5-2		
≥120 mA on 100 mA Load Current		Temperature Drift: ≤±10%		
Off-State (Leakage) Current: ≤0.1 mA		Shock: 30 g, 11 ms		
No-Load Current: ≤15 mA (Ferrite, Uprox)		Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes		
≤20 mA (Uprox+, Uprox 3)		Repeatability: ≤2% of Rated Operating Distance		

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Washdown

Threaded Metal Barrels with Cable or Connector and 3-Wire DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi1.5-EG08WD-AN6X-H1341 4602211	Washdown	1.5	3-wire DC NPN	10-30 VDC	3000	≤150	-25 to +85	IP68/69K	SS	PVDF	N/A	YE	--	A	1	A4
Bi1.5-EG08WD-AP6X-H1341 4602210	Washdown	1.5	3-wire DC PNP	10-30 VDC	3000	≤150	-25 to +85	IP68/69K	SS	PVDF	N/A	YE	--	A	2	A4
Bi4U-EM12WD-AN6X-H1141 1634841	Uprox+, Washdown	4	3-wire DC NPN	10-30 VDC	2000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	--	B	1	A4
Bi4U-EM12WD-AP6X-H1141 1634812	Uprox+, Washdown	4	3-wire DC PNP	10-30 VDC	2000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	--	B	2	A4
Ni10U-EM12WD-AN6X-H1141 1634837	Uprox+, Washdown	10	3-wire DC NPN	10-30 VDC	1000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	--	C	1	A4
Ni10U-EM12WD-AP6X-H1141 1634814	Uprox+, Washdown	10	3-wire DC PNP	10-30 VDC	1000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	--	C	2	A4
Bi4U-EM12WD-AN6X 1634842	Uprox+, Washdown	4	3-wire DC NPN	10-30 VDC	2000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	2M/PP	D	3	A4
Bi4U-EM12WD-AP6X 1634811	Uprox+, Washdown	4	3-wire DC PNP	10-30 VDC	2000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	2M/PP	D	4	A4
Ni10U-EM12WD-AP6X 1634813	Uprox+, Washdown	10	3-wire DC PNP	10-30 VDC	1000	≤200	-40 to +100	IP68/69K	SS	PVDF	N/A	YE	2M/PP	E	4	A4

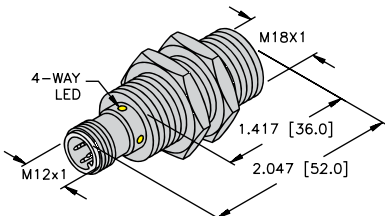
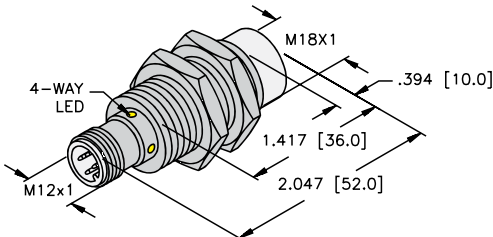
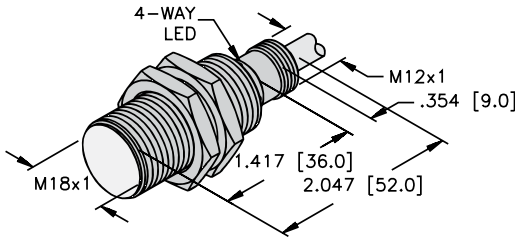
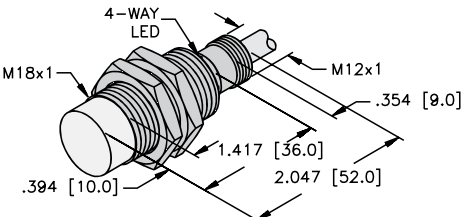
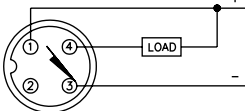
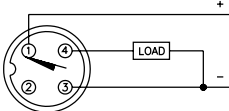
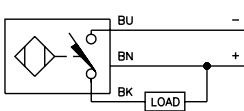
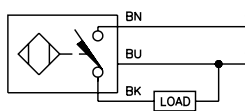
We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | Washdown

Threaded Metal Barrels with Cable or Connector and 3-Wire DC Outputs

Housing Style		Dimension Drawings		
		A	 18 mm - Embeddable, M12 Eurofast Connection	
B	 18 mm - Nonembeddable, M12 Eurofast Connection	C	 18 mm - Embeddable, Potted-in Cable	
D	 18 mm - Nonembeddable, Potted-in Cable			
Wiring Diagrams/Mating Cordsets				
1	 Mating Cordset: RKV 4T-*/S90	2	 Mating Cordset: RKV 4T-*/S90	
3			4	
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)				
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance		

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Washdown

Threaded Metal Barrels with Cable or Connector and 3-Wire DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi8U-EM18WD-AN6X-H1141 1634839	Uprox+, Washdown	8	3-wire DC NPN	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	A	1	A4
Bi8U-EM18WD-AP6X-H1141 1634816	Uprox+, Washdown	8	3-wire DC PNP	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	A	2	A4
Ni15U-EM18WD-AN6X-H1141 1634835	Uprox+, Washdown	15	3-wire DC NPN	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	B	1	A4
Ni15U-EM18WD-AP6X-H1141 1634818	Uprox+, Washdown	15	3-wire DC PNP	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	B	2	A4
Bi8U-EM18WD-AN6X 1634840	Uprox+, Washdown	8	3-wire DC NPN	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	C	3	A4
Bi8U-EM18WD-AP6X 1634815	Uprox+, Washdown	8	3-wire DC PNP	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	C	4	A4
Ni15U-EM18WD-AN6X 1634836	Uprox+, Washdown	15	3-wire DC NPN	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	D	3	A4
Ni15U-EM18WD-AP6X 1634817	Uprox+, Washdown	15	3-wire DC PNP	10-30 VDC	1500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	D	4	A4

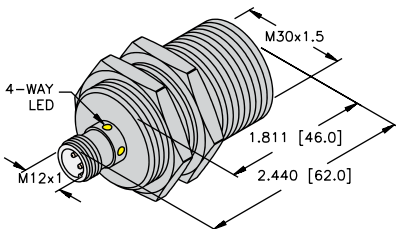
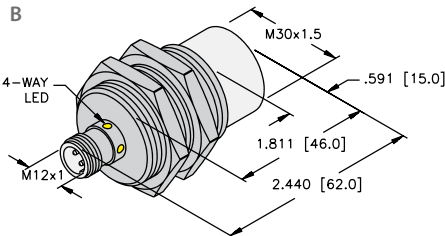
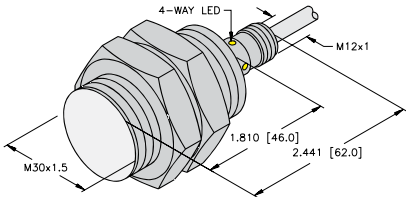
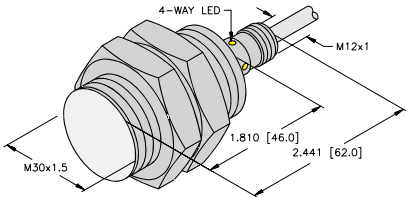
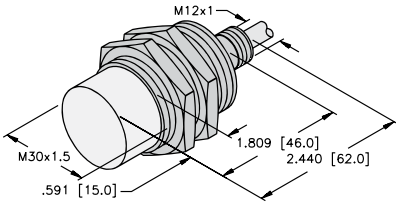
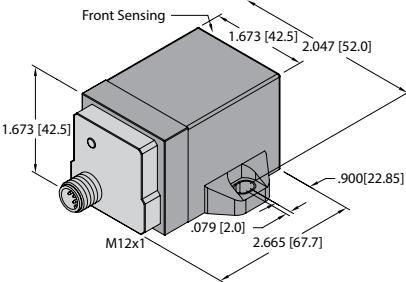
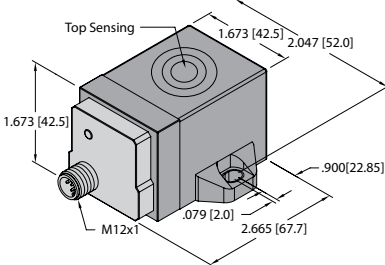
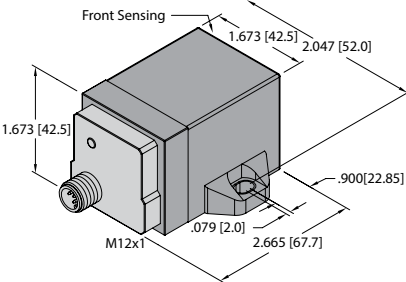
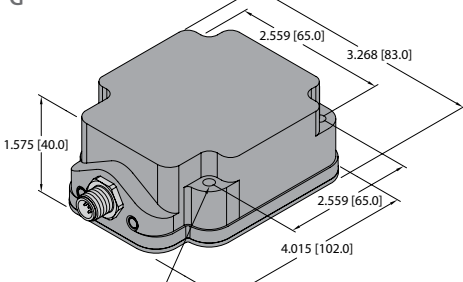
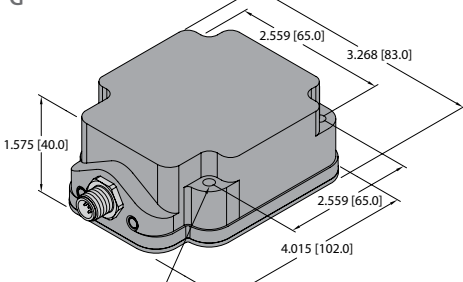
We reserve the right to make technical alterations without prior notice.

Specialty Sensors

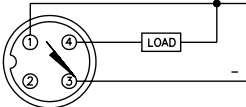
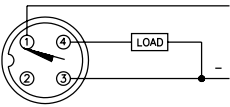
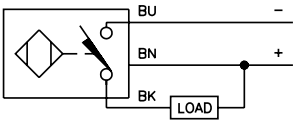
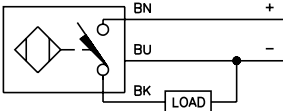
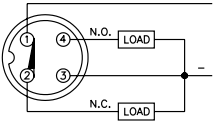


Specialty Sensors | Washdown

Rectangular and Threaded Metal Barrels with Cable or Connector and 3-Wire DC Outputs

Housing Style	Dimension Drawings	
	A  30 mm - Embeddable, M12 Eurofast Connection	B  30 mm - Nonembeddable, M12 Eurofast Connection
	C  30 mm - Embeddable, Potted-in Cable	D  30 mm - Nonembeddable, Potted-in Cable
	E  Q42T - Nonembeddable, M12 Eurofast Connector	F  Q42F - Nonembeddable, M12 Eurofast Connector
	G  Q80 - Nonembeddable, M12 Eurofast Connector	

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Wiring Diagrams/Mating Cordsets		
1  Mating Cordset: RKV 4T-*/S90	2  Mating Cordset: RKV 4T-*/S90	3 
4 	5  Mating Cordset: RKV 4.4T-*	

A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)		
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox, Q42) ≤20 mA (Uprox+, Uprox 3, Q80)	Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	



Specialty Sensors | Washdown

Rectangular and Threaded Metal Barrels with Cable or Connector and 3-Wire DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi15U-EM30WD-AN6X-H1141 1634834	Uprox+, Washdown	15	3-wire DC NPN	10-30 VDC	750	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	A	1	A4
Bi15U-EM30WD-AP6X-H1141 1634820	Uprox+, Washdown	15	3-wire DC PNP	10-30 VDC	750	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	A	2	A4
Ni30U-EM30WD-AN6X-H1141 1634832	Uprox+, Washdown	30	3-wire DC NPN	10-30 VDC	500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	B	1	A4
Ni30U-EM30WD-AP6X-H1141 1634822	Uprox+, Washdown	30	3-wire DC PNP	10-30 VDC	500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	--	B	2	A4
Bi15U-EM30WD-AN6X 1634843	Uprox+, Washdown	15	3-wire DC NPN	10-30 VDC	750	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	C	3	A4
Bi15U-EM30WD-AP6X 1634819	Uprox+, Washdown	15	3-wire DC PNP	10-30 VDC	750	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	C	4	A4
Ni30U-EM30WD-AN6X 1634833	Uprox+, Washdown	30	3-wire DC NPN	10-30 VDC	500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	D	3	A4
Ni30U-EM30WD-AP6X 1634821	Uprox+, Washdown	30	3-wire DC PNP	10-30 VDC	500	≤200	-40 to +100	IP68/69K	SS	LCP	N/A	YE	2M/PP	D	4	A4
Ni50U-Q42TWD-VP6X-H1141 1538306	Uprox+, Washdown	50	4-wire DC PNP	10-30 VDC	250	≤200	-40 to +100	IP68/69K	PA 12	PA 12	N/A	YE	--	E	5	A4
Ni50U-Q42FWD-VP6X-H1141 1538305	Uprox+, Washdown	50	4-wire DC PNP	10-30 VDC	250	≤200	-40 to +100	IP68/69K	PA 12	PA 12	N/A	YE	--	F	5	A4
Ni75U-Q80WD-VP6X2-H1141 1625920	Uprox+, Washdown	75	4-wire DC PNP	10-30 VDC	250	≤200	-25 to +70	IP68/69K	PPS	PPS	GN	YE	--	G	5	A4

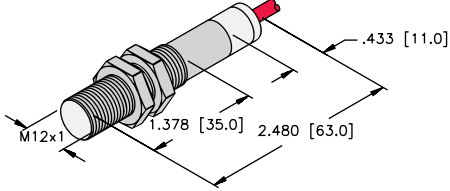
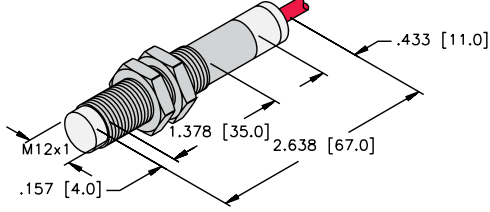
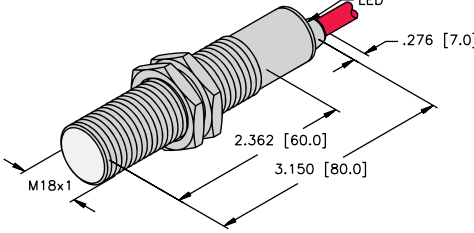
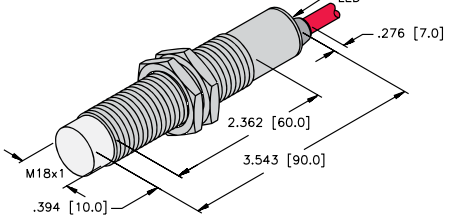
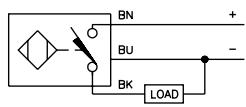
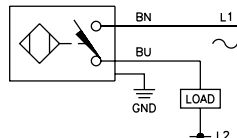
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Specialty Sensors



Specialty Sensors | High Temperature

Threaded Metal Barrels with Cable and AC or DC Outputs

Housing Style	Dimension Drawings
	A  12 mm - Embeddable, Potted-In Cable
B  12 mm - Nonembeddable, Potted-In Cable	C  18 mm - Embeddable, Partial Threading, Potted-In Cable
D  18 mm - Nonembeddable, Partial Threading, Potted-In Cable	
Wiring Diagrams/Mating Cordsets	
1 	2 
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)	Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance
A6 2-wire AC/DC w/o Short-Circuit Protection - (AZ,RZ,FZ)	
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA Minimum Load Current: ≥3.0 mA	Inrush Current: ≤8 A (≤10ms max. 5 Hz) ≤1 A (≤10 ms max. 5 Hz) 12 mm ≤0.2 A (≤10 ms max. 0.2 Hz) 8 mm Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

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Specialty Sensors | High Temperature
Threaded Metal Barrels with Cable and AC or DC Outputs

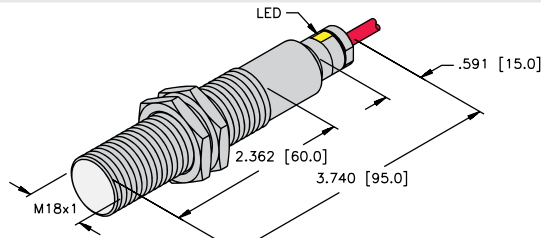
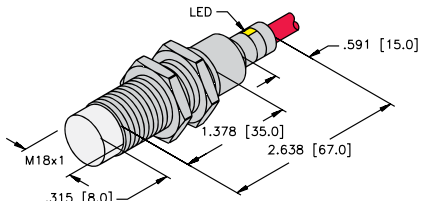
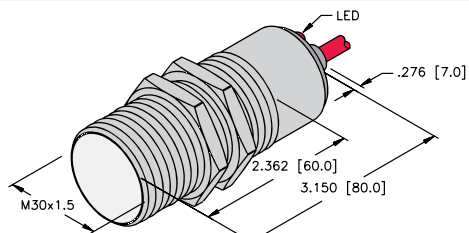
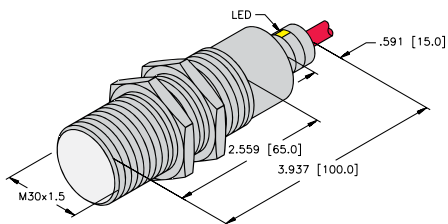
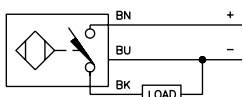
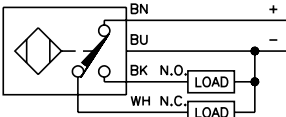
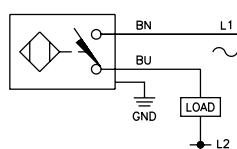
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi2-EM12D-AP6/S120 4614512	High Temp. 120 °C	2	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP67	SS	PTFE	PTFE	N/A	N/A	2M/PTFE	A	1	A4
Ni4-EM12D-AP6/S120 1633110	High Temp. 120 °C	4	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP67	SS	PTFE	PTFE	N/A	N/A	2M/PTFE	B	1	A4
Bi5-M18-AP6X/S120 4611030	High Temp. 120 °C	5	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP67	CPB	PA 12	EPTR	N/A	YE	2M/Silicone	C	1	A4
Bi5-M18-AZ3X/S120 4310410	High Temp. 120 °C	5	2-wire AC	20-250 VAC	20	≤100	-25 to +120	IP67	CPB	PA 12	EPTR	N/A	YE	2M/Silicone	C	2	A6
Ni8-M18-AZ3X/S120 4310530	High Temp. 120 °C	8	2-wire AC	20-250 VAC	20	≤400	-25 to +120	IP67	CPB	PA 12	EPTR	N/A	YE	2M/Silicone	D	2	A6
Ni8-M18-AP6X/S120 4611230	High Temp. 120 °C	8	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP67	CPB	PA 12	EPTR	N/A	YE	2M/Silicone	D	1	A4

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Specialty Sensors | High Temperature

Threaded Metal Barrels with Cable and AC or DC Outputs

Housing Style		Dimension Drawings	
		A  18 mm - Embeddable, Partial Threading, Potted-In Cable	
B  18 mm - Nonembeddable, Partial Threading, Potted-In Cable		C  30 mm - Embeddable, Partial Threading, Potted-In Cable	
D  30 mm - Embeddable, Partial Threading, Potted-In Cable			
Wiring Diagrams/Mating Cordsets			
1 	2 	3 	
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	
A6 2-wire AC/DC w/o Short-Circuit Protection - (AZ, RZ, FZ)			
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA Minimum Load Current: ≥3.0 mA		Inrush Current: ≤8 A (≤10ms max. 5 Hz) ≤1 A (≤10 ms max. 5 Hz) 12 mm ≤0.2 A (≤10 ms max. 0.2 Hz) 8 mm Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

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Specialty Sensors | High Temperature
Threaded Metal Barrels with Cable and AC or DC Outputs

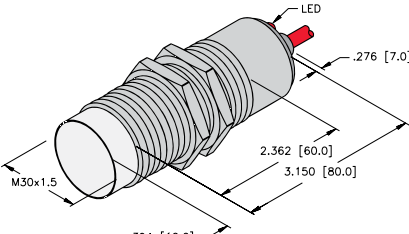
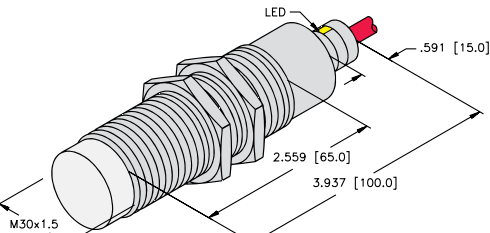
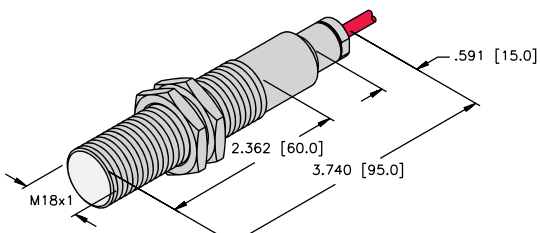
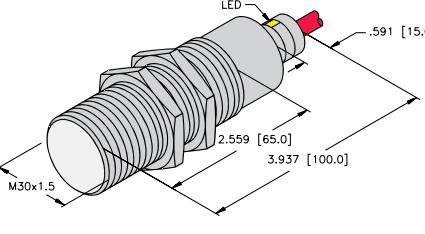
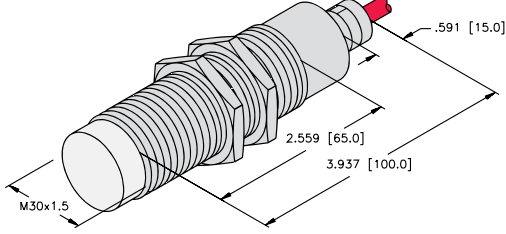
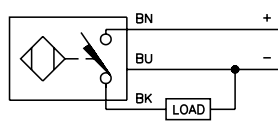
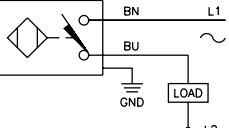
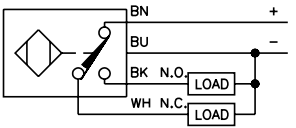
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi5-EM18D-VP6X/S120 4614900	High Temp. 120 °C	5	4-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP68/69K	SS	PTFE	PTFE	N/A	YE	2M/PTFE	A	2	A4
Ni7-EM18D-VP6X/S120 4632100	High Temp. 120 °C	7	4-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP68/69K	SS	PTFE	PTFE	N/A	YE	2M/PTFE	B	2	A4
Bi10-M30-AP6X/S120 4617010	High Temp. 120 °C	10	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP67	CPB	PA 12	PA 12	N/A	YE	2M/Silicone	C	1	A4
Bi10-M30-AZ3X/S120 4316410	High Temp. 120 °C	10	2-wire AC	20-250 VAC	20	≤400	-25 to +120	IP67	CPB	PA 12	PA 12	N/A	YE	2M/Silicone	C	3	A6
Bi10-EM30D-VP6X/S120 4617035	High Temp. 120 °C	10	4-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP68/69K	SS	PTFE	PTFE	N/A	YE	2M/PTFE	D	2	A4

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | High Temperature

Threaded Metal Barrels with Cable and AC or DC Outputs

Housing Style	Dimension Drawings
	A  30 mm - Nonembeddable, Potted-In Cable
B  30 mm - Nonembeddable, Potted-In Cable	C  18 mm - Embeddable, Partial Threading, Potted-In Cable
D  30 mm - Embeddable, Partial Threading, Potted-In Cable	E  30 mm - Non-embeddable, Partial Threading, Potted-In Cable
Wiring Diagrams/Mating Cordsets	
1 	2 
3 	
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)	Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance
A6 2-wire AC/DC w/o Short-Circuit Protection - (AZ, RZ, FZ)	
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA Minimum Load Current: ≥3.0 mA	Inrush Current: ≤8 A (≤10ms max. 5 Hz) ≤1 A (≤10 ms max. 5 Hz) 12 mm ≤0.2 A (≤10 ms max. 0.2 Hz) 8 mm Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | High Temperature

Threaded Metal Barrels with Cable and AC or DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Ni15-M30-AP6X/S120 4617210	High Temp. 120 °C	15	3-wire DC PNP	10-30 VDC	500	≤200	-25 to +120	IP67	CPB	PA 12	PA 12	N/A	YE	2M/Silicone	A	1	A4
Ni15-M30-AZ3X/S120 4316506	High Temp. 120 °C	15	2-wire AC	20-250 VAC	20	≤400	-25 to +120	IP67	CPB	PA 12	PA 12	N/A	YE	2M/Silicone	A	2	A6
Ni15-EM30D-VP6X/S120 4617410	High Temp. 120 °C	15	4-wire DC PNP	10-30 VDC	100	≤200	-25 to +120	IP68/69K	SS	PTFE	PTFE	N/A	YE	2M/PTFE	B	3	A4
Bi5-EM18-AP6/S907 4617425	High Temp. 160 °C	5	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +160	IP67	SS	PEEK	PTFE	N/A	N/A	2M/PTFE	C	1	A4
Bi10-EM30-AP6/S907 4614513	High Temp. 160 °C	10	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +160	IP67	SS	PEEK	PTFE	N/A	N/A	2M/PTFE	D	1	A4
Ni15-EM30-AP6/S907 4617412	High Temp. 160 °C	15	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +160	IP67	SS	PEEK	PTFE	N/A	N/A	2M/PTFE	E	1	A4

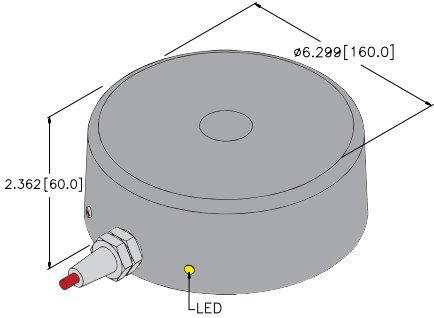
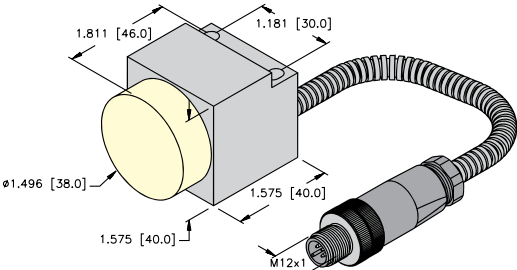
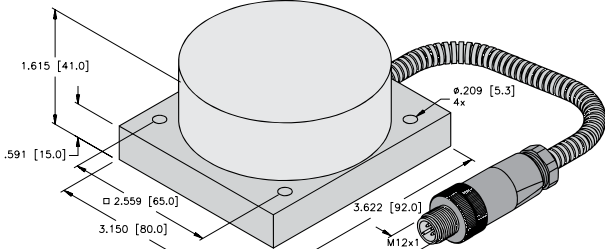
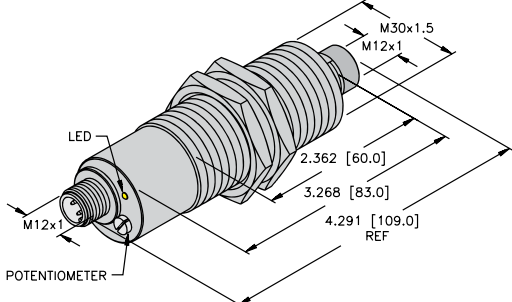
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Specialty Sensors

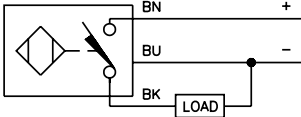
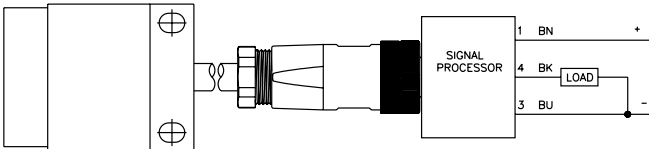


Specialty Sensors | High Temperature

Rectangular and Round Housings

Housing Style	Dimension Drawings
	A  160 mm - Nonembeddable
B  CQ40 - Nonembeddable	C  CQ80 - Nonembeddable
D  30 mm - Signal Processor	

We reserve the right to make technical alterations without prior notice.

Wiring Diagrams/Mating Cordsets	
1 	2 
A20 3-wire DC -High Temp (AP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤2 V (120 °C) Trigger Current for Short Circuit Protection: ≥420 mA on 400 mA Load Current Off-State (Leakage) Current: ≤0.1 mA	Temperature Drift: ≤±20% Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

Note:
CQ40 and CQ80 sensors require signal processor for operation.

Specialty Sensors | High Temperature
Rectangular and Round Housings

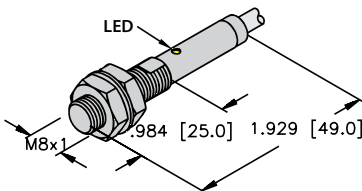
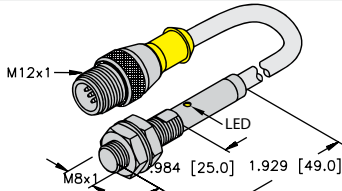
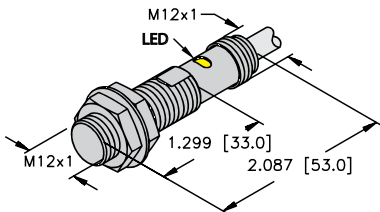
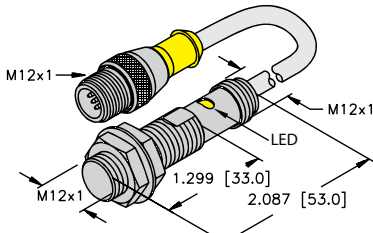
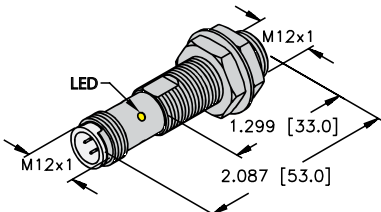
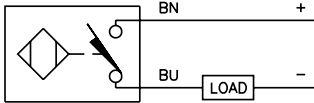
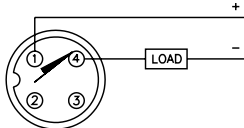
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Ni100-Q160-AP44X/S120 1440012	High Temp. 120 °C	100	3-wire DC PNP	10-55 VDC	50	≤400	-25 to +120	IP67	PPO	PPO	--	N/A	YE	2M/Silicone	A	1	A20
Ni25-CQ40/S1102 5M 1602410	High Temp. 250 °C	25	Remote	--	40	Remote	0 to +250	IP60	AL	PEEK	PEEK	N/A	N/A	5M/PTFE	B	2	--
Ni25-CQ40/S1102 10M 1602403	High Temp. 250 °C	25	Remote	--	40	Remote	0 to +250	IP60	AL	PEEK	PEEK	N/A	N/A	10M/PTFE	B	2	--
Ni40-CQ80/S1102 5M 1602404	High Temp. 250 °C	40	Remote	--	40	Remote	0 to +250	IP60	AL	PEEK	PEEK	N/A	N/A	5M/PTFE	C	2	--
EM30-AP6X2-H1141/S1102 1602411	Signal Processor	N/A	3-wire DC PNP	10-30 VDC	40	≤200	-20 to +70	IP67	SS	SS	--	GN	YE	--	D	2	A20

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 2-Wire DC Outputs

Housing Style		Dimension Drawings	
			8 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable 8 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect
			8 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable 12 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable 12 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect
Wiring Diagrams/Mating Cordsets			
1 	2 	Mating Cordset: RKV 4.23T-*	
A21 2-wire DC Stainless Front Face (AG)			
Ripple: ≤10% Differential Travel (Hysteresis): 1-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤3.5 V Polarized Trigger Current for Short Circuit Protection: ≥120 mA on 100 mA Load Current Minimum Load Current: ≥3.0 mA		Temperature Drift: ≤±20% Off-State (Leakage) Current: ≤0.8 mA Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.

Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 2-Wire DC Outputs

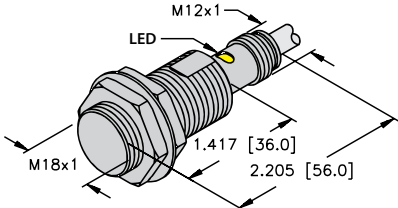
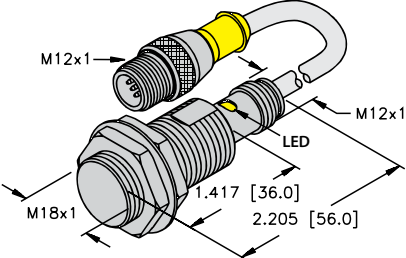
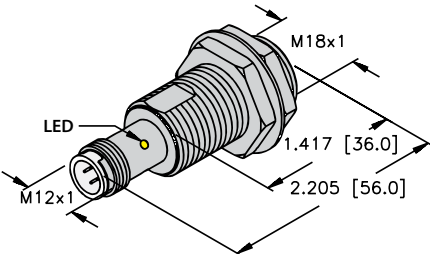
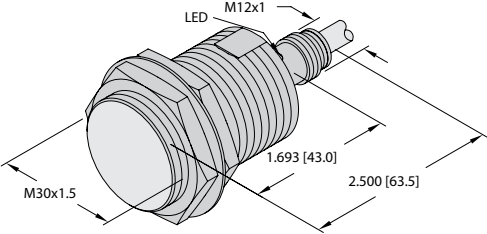
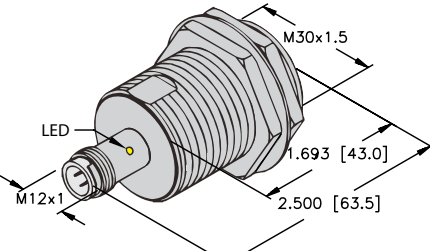
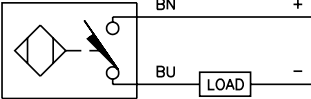
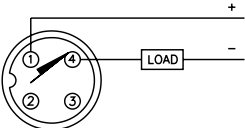
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi1.5-EG08F-AG6X 4614628	Full Stainless Steel	1.5	2-wire DC	10-30 VDC	200	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	2M/ PVC	A	1	A21
Bi1.5-EGT08F-AG6X 4614677	Full Stainless Steel, PTFE	1.5	2-wire DC	10-30 VDC	200	≤100	-25 to +70	IP68/69K	TC	SS	GN	RD	2M/ PVC	A	1	A21
Bi1.5-EG08F-AG6X-0.3-RS4.23T 4614684	Full Stainless Steel	1.5	2-wire DC	10-30 VDC	200	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	0.3M/ PVC	B	2	A21
Bi1.5-EGT08F-AG6X-0.2-RS4.23T 4614686	Full Stainless Steel, PTFE	1.5	2-wire DC	10-30 VDC	200	≤100	-25 to +70	IP68/69K	TC	SS	GN	RD	0.2M/ PVC	B	2	A21
Bi2-EG08F-AG6X 4614664	Full Stainless Steel	2	2-wire DC	10-30 VDC	200	≤100	-25 to +70	IP67	SS	SS	N/A	RD	2M/ PVC	A	1	A21
Bi2-EG12F-AG6X 4614634	Full Stainless Steel	2	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	2M/ PVC	C	1	A21
Bi2-EGT12F-AG6X 46146651	Full Stainless Steel, PTFE	2	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	TC	SS	GN	RD	2M/ PVC	C	1	A21
Bi2-EG12F-AG6X-0.3-RS4.23T 4614693	Full Stainless Steel	2	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	0.3M/ PVC	D	2	A21
Bi3-EG12F-AG6X 4614665	Full Stainless Steel	3	2-wire DC	10-30 VDC	80	≤100	-25 to +70	IP67	SS	SS	N/A	RD	2M/ PVC	C	1	A21
Bi2-EG12F-AG6X-H1141 4614637	Full Stainless Steel	2	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	--	E	2	A21
Bi2-EGT12F-AG6X-H1141 4614698	Full Stainless Steel, PTFE	2	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	TC	SS	GN	RD	--	E	2	A21

We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | Stainless Front Face
Embeddable Threaded Metal Barrels with 2-Wire DC Outputs

Housing Style	Dimension Drawings
	A  18 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable
B  18 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect	C  18 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect
D  30 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable	E  30 mm - Embeddable, M12 Eurofast Connection, Stainless Steel
Wiring Diagrams/Mating Cordsets	
1 	2  Mating Cordset: RKV 4T-*; RKV 4.23T-*
2-wire DC Stainless Front Face (AG)	
A21 Ripple: ≤10% Differential Travel (Hysteresis): 1-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤3.5 V Polarized Trigger Current for Short Circuit Protection: ≥120 mA on 100 mA Load Current Minimum Load Current: ≥3.0 mA	Temperature Drift: ≤±20% Off-State (Leakage) Current: ≤0.8 mA Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

We reserve the right to make technical alterations without prior notice.

Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 2-Wire DC Outputs

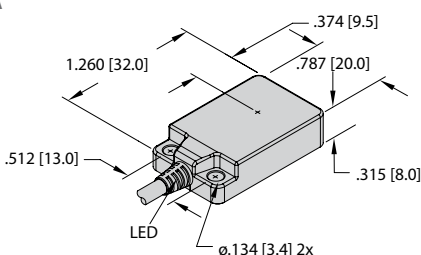
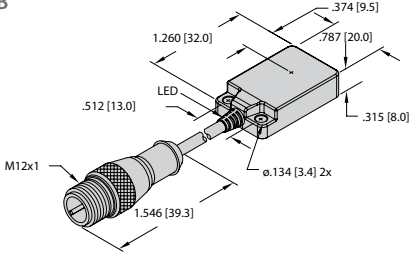
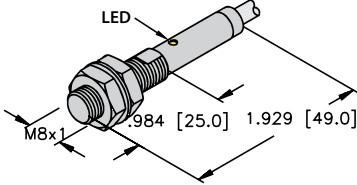
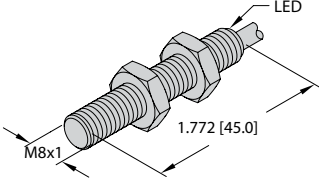
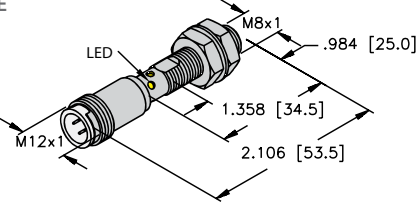
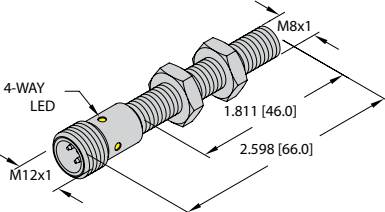
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi5-EG18F-AG6X 4614640	Full Stainless Steel	5	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	2M/PVC	A	1	A21
Bi5-EGT18F-AG6X 46146400	Full Stainless Steel, PTFE	5	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	TC	SS	GN	RD	2M/PVC	A	1	A21
Bi5-EG18F-AG6X-0.3-RS4.23T 4614694	Full Stainless Steel	5	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	0.3M/PVC	B	2	A21
Bi7-EG18F-AG6X 4614666	Full Stainless Steel	7	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP67	SS	SS	N/A	RD	2M/PVC	A	1	A21
Bi5-EG18F-AG6X-H1141 4614643	Full Stainless Steel	5	2-wire DC	10-30 VDC	100	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	- -	C	2	A21
Bi12-EG30F-AG6X 4614667	Full Stainless Steel	12	2-wire DC	10-30 VDC	50	≤100	-25 to +70	IP67	SS	SS	N/A	RD	2M/PVC	D	1	A21
Bi10-EG30F-AG6X-H1141 4614649	Full Stainless Steel	10	2-wire DC	10-30 VDC	50	≤100	-25 to +70	IP68/69K	SS	SS	GN	RD	- -	E	2	A21
Bi10-EGT30F-AG6X-H1141/ S1589 46146490	Full Stainless Steel, PTFE, Weldguard	10	2-wire DC	10-30 VDC	50	≤100	-25 to +70	IP68/69K	TC	WG	GN	RD	- -	E	2	A21

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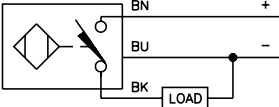
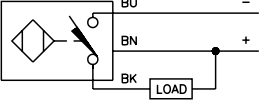
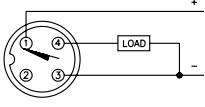
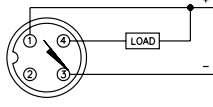
Specialty Sensors

Specialty Sensors | Stainless Front Face

Embeddable Rectangular and Threaded Metal Barrels with 3-Wire DC Outputs

Housing Style	Dimension Drawings	
	A  8 mm - Embeddable, Stainless Steel, Potted-In Cable	B  8 mm - Embeddable, Stainless Steel, M12 Eurofast Quick Disconnect
C  8 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable	D  8 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable	E  8 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect
F  8 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect		

We reserve the right to make technical alterations without prior notice.

Wiring Diagrams/Mating Cordsets			
1 	2 	3  Mating Cordset: RKV 4T-*	4  Mating Cordset: RKV 4T-*

A22 3-wire DC Stainless Front Face (AP, AN, RP, RN)			
Ripple:	≤10%	Temperature Drift:	≤±10%
Differential Travel (Hysteresis):	3-15% (5% typical)	Reverse Polarity Protection:	Incorporated
Voltage Drop Across Conducting Sensor:	≤1.8 V	Wire-Break Protection:	Incorporated
Trigger Current for Short Circuit Protection:	≥220 mA on 200 mA Load Current	Shock:	30 g, 11 ms
No-Load Current:	≤15 mA	Vibration:	55 Hz, 1 mm Amplitude in all 3 Planes
Off-State (Leakage) Current:	≤0.1 mA	Repeatability:	≤2% of Rated Operating Distance
A23 3-wire DC Stainless Front Face Ext Range (AP, AN, RP, RN)			
Ripple:	≤10%	Temperature Drift:	≤±10%
Differential Travel (Hysteresis):	20%	Reverse Polarity Protection:	Incorporated
Voltage Drop Across Conducting Sensor:	≤2 V	Wire-Break Protection:	Incorporated
Trigger Current for Short Circuit Protection:	≥220 mA on 200 mA Load Current	Shock:	30 g, 11 ms
No-Load Current:	≤10 mA	Vibration:	55 Hz, 1 mm Amplitude, in all 3 Planes
Off-State (Leakage) Current:	≤0.1 mA	Repeatability:	≤5% of Rated Operating Distance



Specialty Sensors | Stainless Front Face

Embeddable Rectangular and Threaded Metal Barrels with 3-Wire DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi7-Q08F-AN6X 1608914	Full Stainless Steel	7	3-wire DC NPN	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/TPE	A	2	A23
Bi7-Q08F-AP6X 1608916	Full Stainless Steel	7	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/TPE	A	1	A23
Bi7-Q08F-AP6X-0.2-RS4T 16089160	Full Stainless Steel	7	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	0.2M/TPE	B	3	A23
Bi1.5-EG08F-AN6X 4614627	Full Stainless Steel	1.5	3-wire DC NPN	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	C	2	A22
Bi3-EG08FE-AN6X 4614712	Full Stainless Steel	3	3-wire DC NPN	10-30 VDC	1000	≤200	-25 to +70	IP67	SS	SS	N/A	YE	2M/PVC	D	2	A23
Bi1.5-EG08F-AP6X 4614626	Full Stainless Steel	1.5	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	C	1	A22
Bi1.5-EGT08F-AP6X 4614678	Full Stainless Steel, PTFE	1.5	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	2M/PVC	C	1	A22
Bi3-EG08FE-AP6X 4614704	Full Stainless Steel	3	3-wire DC PNP	10-30 VDC	1000	≤200	-25 to +70	IP67	SS	SS	N/A	YE	2M/PVC	D	1	A23
Bi3-EGT08FE-AP6X 46147043	Full Stainless Steel, PTFE	3	3-wire DC PNP	10-30 VDC	1000	≤200	-25 to +70	IP67	TC	SS	N/A	YE	2M/PVC	D	1	A23
Bi1.5-EG08F-AN6X-H1341 4614630	Full Stainless Steel	1.5	3-wire DC NPN	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	E	4	A22
Bi3-EG08FE-AN6X-H1341 4614711	Full Stainless Steel	3	3-wire DC NPN	10-30 VDC	1000	≤200	-25 to +70	IP67	SS	SS	N/A	YE	--	F	4	A23
Bi1.5-EG08F-AP6X-H1341 4614629	Full Stainless Steel	1.5	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	E	3	A22
Bi3-EG08FE-AP6X-H1341 4614703	Full Stainless Steel	3	3-wire DC PNP	10-30 VDC	1000	≤200	-25 to +70	IP67	SS	SS	N/A	YE	--	F	3	A23
Bi3-EGT08FE-AP6X-H1341 46147030	Full Stainless Steel, PTFE	3	3-wire DC PNP	10-30 VDC	1000	≤200	-25 to +70	IP67	TC	SS	N/A	YE	--	F	3	A23
Bi3-EGT08FE-AP6X-H1341/S1589 46147032	Full Stainless Steel, PTFE, Weldguard	3	3-wire DC PNP	10-30 VDC	1000	≤200	-25 to +70	IP67	TC	WG	N/A	YE	--	F	3	A23

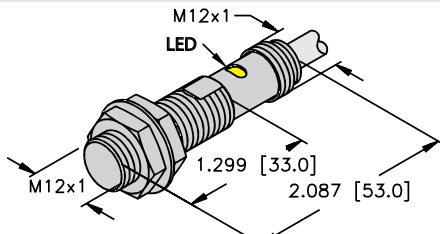
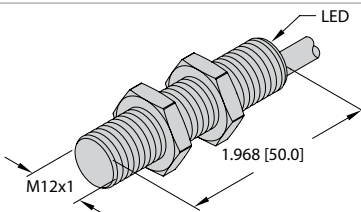
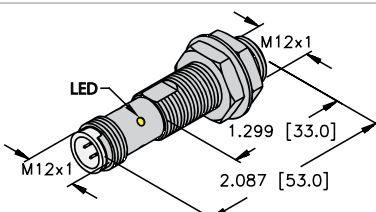
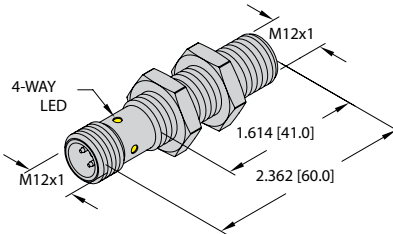
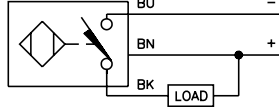
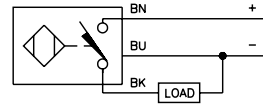
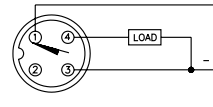
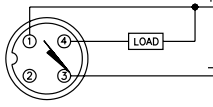
We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 3-Wire DC Outputs

Housing Style		Dimension Drawings	
		A  12 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable	
B  12 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable		C  12 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect	
D  12 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect			
Wiring Diagrams/Mating Cordsets			
1 	2 	3  Mating Cordset: RKV 4T-*	4  Mating Cordset: RKV 4T-*
A22 3-wire DC Stainless Front Face (AP, AN, RP, RN)			
Ripple: $\leq 10\%$ Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: $\leq 1.8\text{ V}$ Trigger Current for Short Circuit Protection: $\geq 220\text{ mA}$ on 200 mA Load Current No-Load Current: $\leq 15\text{ mA}$ Off-State (Leakage) Current: $\leq 0.1\text{ mA}$		Temperature Drift: $\leq \pm 10\%$ Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: $\leq 2\%$ of Rated Operating Distance	
A23 3-wire DC Stainless Front Face Ext Range (AP, AN, RP, RN)			
Ripple: $\leq 10\%$ Differential Travel (Hysteresis): 20% Voltage Drop Across Conducting Sensor: $\leq 2\text{ V}$ Trigger Current for Short Circuit Protection: $\geq 220\text{ mA}$ on 200 mA Load Current No-Load Current: $\leq 10\text{ mA}$ Off-State (Leakage) Current: $\leq 0.1\text{ mA}$		Temperature Drift: $\leq \pm 10\%$ Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 5\%$ of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 3-Wire DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi2-EG12F-AN6X 4614633	Full Stainless Steel	2	3-wire DC NPN	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	A	2	A22
Bi6-EG12FE-AN6X 4614721	Full Stainless Steel	6	3-wire DC NPN	10-30 VDC	600	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	B	2	A23
Bi2-EG12F-AP6X 4614632	Full Stainless Steel	2	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	A	1	A22
Bi6-EG12FE-AP6X 4614720	Full Stainless Steel	6	3-wire DC PNP	10-30 VDC	600	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	B	1	A23
Bi2-EG12F-AN6X-H1141 4614636	Full Stainless Steel	2	3-wire DC NPN	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	C	4	A22
Bi6-EG12FE-AN6X-H1141 4614714	Full Stainless Steel	6	3-wire DC NPN	10-30 VDC	600	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	D	4	A23
Bi6-EGT12FE-AN6X-H1141 46147140	Full Stainless Steel, PTFE	6	3-wire DC NPN	10-30 VDC	600	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	D	4	A23
Bi2-EG12F-AP6X-H1141 4614635	Full Stainless Steel	2	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	C	3	A22
Bi2-EGT12F-AP6X-H1141 46146971	Full Stainless Steel, PTFE	2	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	C	3	A22
Bi6-EG12FE-AP6X-H1141 4614706	Full Stainless Steel	6	3-wire DC PNP	10-30 VDC	600	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	D	3	A23
Bi6-EGT12FE-AP6X-H1141 46147060	Full Stainless Steel, PTFE	6	3-wire DC PNP	10-30 VDC	600	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	D	3	A23
Bi6-EGT12FE-AP6X-H1141/S1589 46147061	Full Stainless Steel, PTFE, Weldguard	6	3-wire DC PNP	10-30 VDC	600	≤200	-25 to +70	IP68/69K	TC	WG	N/A	YE	--	D	3	A23

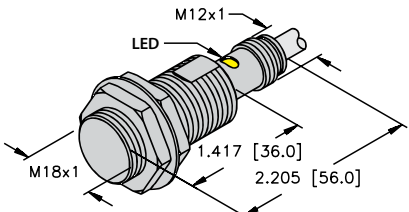
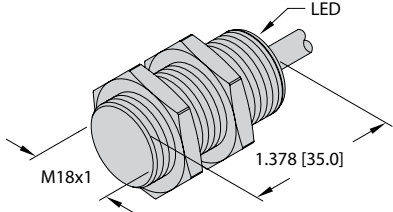
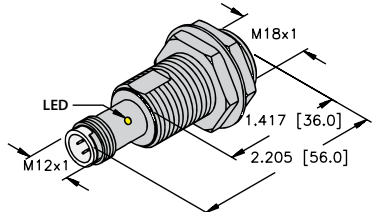
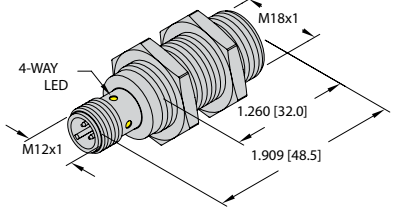
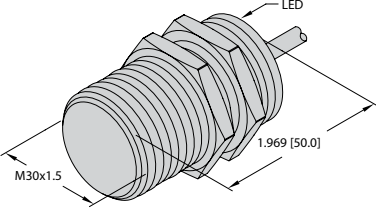
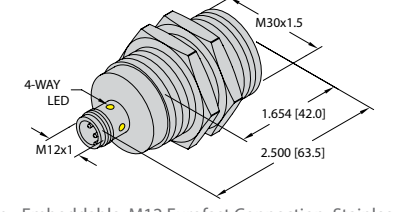
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Specialty Sensors

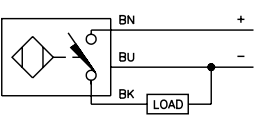
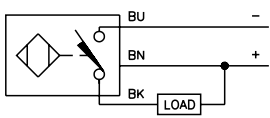
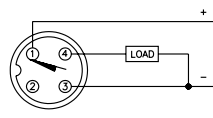
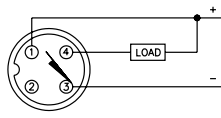


Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 3-Wire DC Outputs

Housing Style	Dimension Drawings
	A  18 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable
B  18 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable	C  18 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect
D  18 mm - Embeddable, Stainless Steel Barrel, M12 Eurofast Quick Disconnect	E  30 mm - Embeddable, Stainless Steel Barrel, Potted-In Cable
F  30 mm - Embeddable, M12 Eurofast Connection, Stainless Steel	

We reserve the right to make technical alterations without prior notice.

Wiring Diagrams/Mating Cordsets			
1 	2 	3  Mating Cordset: RKV 4T-*	4  Mating Cordset: RKV 4T-*

A22 3-wire DC Stainless Front Face (AP, AN, RP, RN)			
Ripple:	≤10%	Temperature Drift:	≤±10%
Differential Travel (Hysteresis):	3-15% (5% typical)	Reverse Polarity Protection:	Incorporated
Voltage Drop Across Conducting Sensor:	≤1.8 V	Wire-Break Protection:	Incorporated
Trigger Current for Short Circuit Protection:	≥220 mA on 200 mA Load Current	Shock:	30 g, 11 ms
No-Load Current:	≤15 mA	Vibration:	55 Hz, 1 mm Amplitude in all 3 Planes
Off-State (Leakage) Current:	≤0.1 mA	Repeatability:	≤2% of Rated Operating Distance
A23 3-wire DC Stainless Front Face Ext Range (AP, AN, RP, RN)			
Ripple:	≤10%	Temperature Drift:	≤±10%
Differential Travel (Hysteresis):	20%	Reverse Polarity Protection:	Incorporated
Voltage Drop Across Conducting Sensor:	≤2 V	Wire-Break Protection:	Incorporated
Trigger Current for Short Circuit Protection:	≥220 mA on 200 mA Load Current	Shock:	30 g, 11 ms
No-Load Current:	≤10 mA	Vibration:	55 Hz, 1 mm Amplitude, in all 3 Planes
Off-State (Leakage) Current:	≤0.1 mA	Repeatability:	≤5% of Rated Operating Distance



Specialty Sensors | Stainless Front Face

Embeddable Threaded Metal Barrels with 3-Wire DC Outputs

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi5-EG18F-AN6X 4614639	Full Stainless Steel	5	3-wire DC NPN	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	A	2	A22
Bi10-EG18F-AN6X 4614723	Full Stainless Steel	10	3-wire DC NPN	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	B	2	A23
Bi10-EG18F-AP6X 4614722	Full Stainless Steel	10	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	B	1	A23
Bi5-EG18F-AN6X-H1141 4614642	Full Stainless Steel	5	3-wire DC NPN	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	C	4	A22
Bi5-EGT18F-AN6X-H1141 4614672	Full Stainless Steel, PTFE	5	3-wire DC NPN	10-30 VDC	100	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	C	4	A22
Bi10-EG18F-AN6X-H1141 4614716	Full Stainless Steel	10	3-wire DC NPN	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	D	4	A23
Bi5-EG18F-AP6X-H1141 4614641	Full Stainless Steel	5	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	C	3	A22
Bi5-EGT18F-AP6X-H1141 4614675	Full Stainless Steel, PTFE	5	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	C	3	A22
Bi10-EG18F-AP6X-H1141 4614708	Full Stainless Steel	10	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	D	3	A23
Bi10-EGT18F-AP6X-H1141 46147080	Full Stainless Steel, PTFE	10	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	D	3	A23
Bi10-EGT18F-AP6X-H1141/S1589 46147081	Full Stainless Steel, PTFE, Weldguard	10	3-wire DC PNP	10-30 VDC	200	≤200	-25 to +70	IP68/69K	TC	WG	N/A	YE	--	D	3	A23
Bi20-EG30F-AP6X 4614724	Full Stainless Steel	20	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	2M/PVC	E	1	A23
Bi20-EG30F-AP6X-H1141 4614710	Full Stainless Steel	20	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	SS	SS	N/A	YE	--	F	3	A23
Bi20-EGT30F-AP6X-H1141 46147100	Full Stainless Steel, PTFE	20	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	TC	SS	N/A	YE	--	F	3	A23
Bi20-EGT30F-AP6X-H1141/S1589 46147101	Full Stainless Steel, PTFE, Weldguard	20	3-wire DC PNP	10-30 VDC	100	≤200	-25 to +70	IP68/69K	TC	WG	N/A	YE	--	F	3	A23

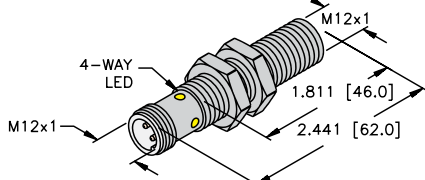
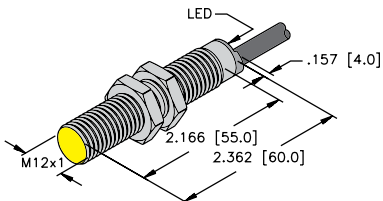
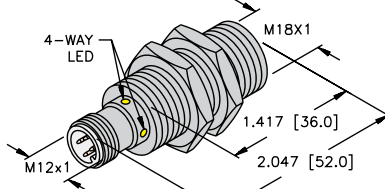
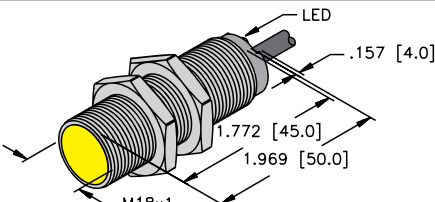
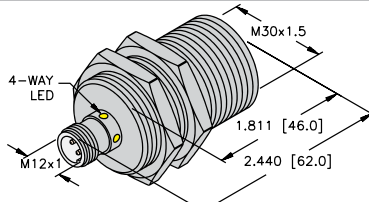
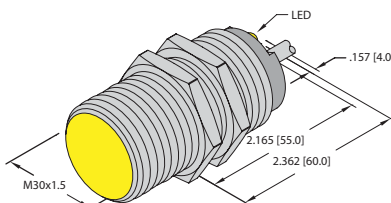
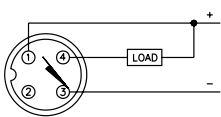
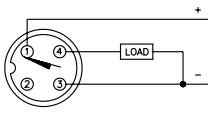
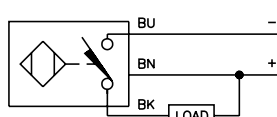
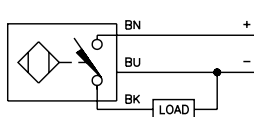
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Specialty Sensors



Specialty Sensors | Mobile Equipment

Barrel Sensors Designed for use on Vehicles and Equipment

Housing Style		Dimension Drawings	
		A  12 mm - Embeddable, M12 Eurofast Connection	
B  12 mm - Embeddable, Partial Threading, Potted-In Cable		C  18 mm - Embeddable, M12 Eurofast Connection	
D  18 mm - Embeddable, Partial Threading, Potted-In Cable		E  30 mm - Embeddable, M12 Eurofast Connection	
F  30 mm - Embeddable, Partial Threading, Potted-In Cable			
Wiring Diagrams/Mating Cordsets			
1  Mating Cordset: RK 4T-*/S90	2  Mating Cordset: RK 4T-*/S90	3 	4 
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	
Features			
• Load Dump Protection • Shock Resistant • EMC Immunity • Extended Temperature Range • Broader Operating Voltage • Improved Sealing and Environmental Protection • Longer Sensing Range			

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Mobile Equipment

Barrel Sensors Designed for use on Vehicles and Equipment

Part Number/ ID Number	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi4-EM12E-AN45XLD-H1141 1584003	4	3-wire DC NPN	8.4-65 VDC	2000	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	--	A	1	A4
Bi4-EM12E-AP45XLD-H1141 1584000	4	3-wire DC PNP	8.4-65 VDC	2000	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	--	A	2	A4
Bi4-EM12E-AN45XLD 1584004	4	3-wire DC NPN	8.4-65 VDC	2000	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	2M/TPE	B	3	A4
Bi4-EM12E-AP45XLD 1584001	4	3-wire DC PNP	8.4-65 VDC	2000	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	2M/TPE	B	4	A4
Bi8-EM18-AN45XLD-H1141 1584017	8	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	--	C	1	A4
Bi8-EM18-AP45XLD-H1141 1584010	8	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	--	C	2	A4
Bi8-EM18-AN45XLD 1584014	8	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	2M/TPE	D	3	A4
Bi8-EM18-AP45XLD 1584011	8	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	2M/TPE	D	4	A4
Bi15-EM30-AN45XLD-H1141 1584024	15	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	--	E	1	A4
Bi15-EM30-AP45XLD-H1141 1584020	15	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	--	E	2	A4
Bi15-EM30-AN45XLD 1584022	15	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	2M/TPE	F	1	A4
Bi15-EM30-AP45XLD 1584021	15	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	SS	PA12	N/A	YE	2M/TPE	F	2	A4

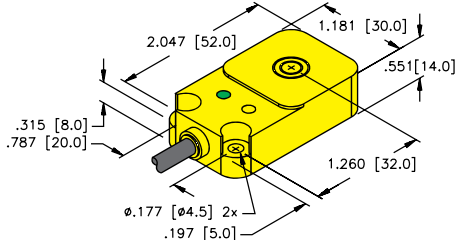
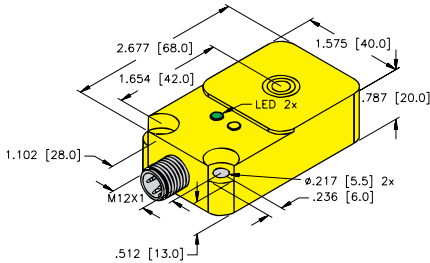
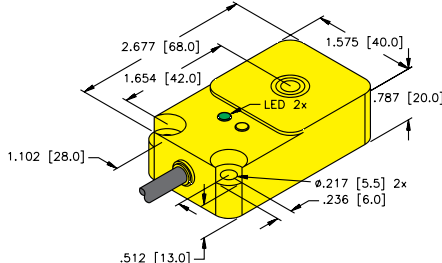
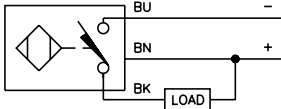
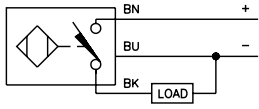
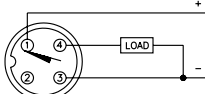
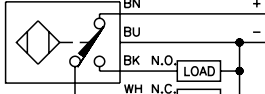
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Specialty Sensors



Specialty Sensors | Mobile Equipment

Rectangular Sensors Designed for use on Vehicles and Equipment

Housing Style		Dimension Drawings	
		A  14 mm - Embeddable, Potted-In Cable	
B  20 mm - Embeddable, M12 Eurofast Connection		C  20 mm - Embeddable, Potted-In Cable	
Wiring Diagrams/Mating Cordsets			
1 		2 	
4  Mating Cordset: RK 4T-*/S90		5 	
Mating Cordset: RK 4T-*/S90			
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	
Features			
• Load Dump Protection • Shock Resistant • EMC Immunity • Extended Temperature Range		• Broader Operating Voltage • Improved Sealing and Environmental Protection • Longer Sensing Range	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Mobile Equipment

Rectangular Sensors Designed for use on Vehicles and Equipment

Part Number/ ID Number	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi10-Q14-AN45X2LD 1584032	10	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	2M/TPE	A	1	A4
Bi10-Q14-AP45X2LD 1584031	10	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	2M/TPE	A	2	A4
Bi20-Q20-AN45X2LD-H1141 1584042	20	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	- -	B	3	A4
Bi20-Q20-AP45X2LD-H1141 1584040	20	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	- -	B	4	A4
Bi20-Q20-AN45X2LD 1584043	20	3-wire DC NPN	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	2M/TPE	C	1	A4
Bi20-Q20-AP45X2LD 1584041	20	3-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	2M/TPE	C	2	A4
Bi20-Q20-VP45X2LD 1584047	20	4-wire DC PNP	8.4-65 VDC	500	≤200	-40 to +85	IP68/69K	PBT	PBT	GN	YE	2M/TPE	C	5	A4

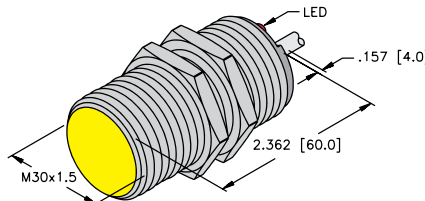
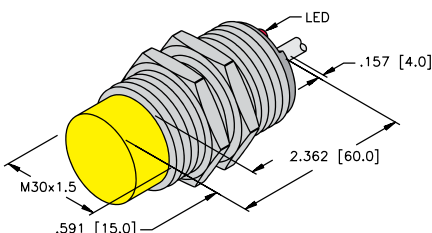
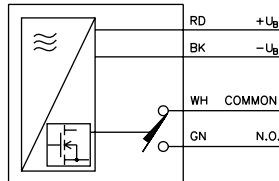
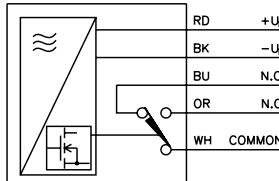
We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | 6A Solid State

Threaded Metal Barrel Sensors with Cable

Housing Style		Dimension Drawings	
		A  30 mm - Embeddable, Potted-In Cable	
B  30 mm - Nonembeddable, Potted-In Cable			
Wiring Diagrams/Mating Cordsets			
1 		2 	
Solid State Relay (AM6, VM6)			
A10 Ripple: ≤10% Output Voltage: ≤35 V AC, ≤50 V DC Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤0.4 V Continuous Load Current: ≤6 Amp Off-State (Leakage) Current: ≤0.1 mA Inrush Current: ≤8.0 A (≤10.0 ms max 5 Hz) No-Load Current: ≤25 mA		Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Short Circuit Protected: No Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | 6A Solid State
Threaded Metal Barrel Sensors with Cable

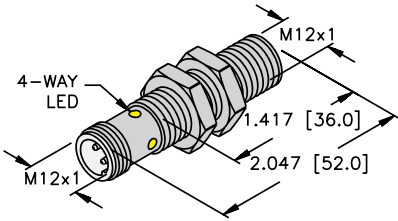
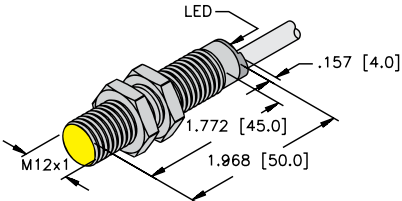
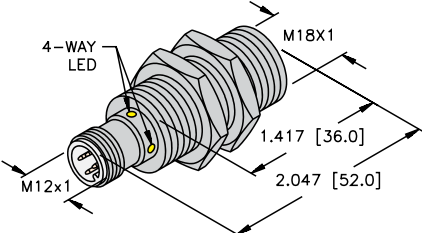
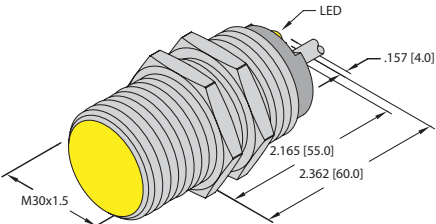
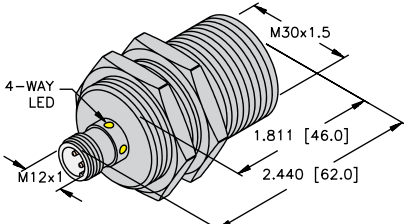
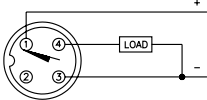
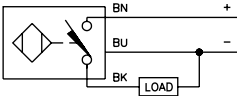
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi12-G30-AM6/37X/S97 1711200	High current rated	12	4-wire DC	10-30 VDC	20	≤6000	-40 to 70	IP67	CPB	PA12	N/A	YE	2M/PVC	A	1	A10
Bi12-G30-VM6/37X/S97 1711290	High current rated	12	5-wire DC	10-30 VDC	20	≤6000	-40 to 70	IP67	CPB	PA12	N/A	YE	2M/PVC	A	2	A10
Ni20-G30-VM6/37X/S97 4205472	High current rated	20	5-wire DC	10-30 VDC	20	≤6000	-40 to 70	IP67	CPB	PA12	N/A	YE	2M/PVC	B	2	A10

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | FM Approved Class I Div 2

Threaded Metal Barrels with 3-Wire DC Outputs

Housing Style		Dimension Drawings	
		A	 12 mm - Embeddable, M12 Eurofast Connector
B	 12 mm - Embeddable, Potted-In Cable	C	 18 mm - Embeddable, M12 Eurofast Connector
D	 30 mm - Embeddable, Potted-In Cable	E	 30 mm - Embeddable, M12 Eurofast Connector
Wiring Diagrams/Mating Cordsets			
1	 Mating Cordset: P-RKGV 4.43T-1699XL-*	2	
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | FM Approved Class I Div 2
Threaded Metal Barrels with 3-Wire DC Outputs

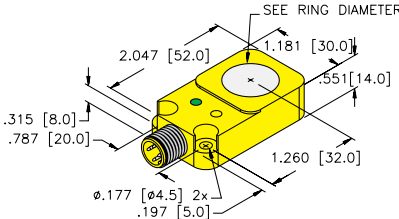
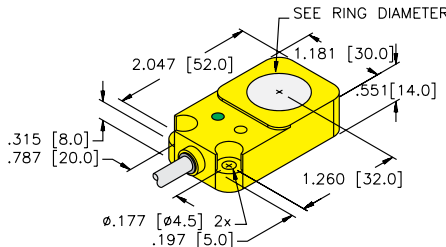
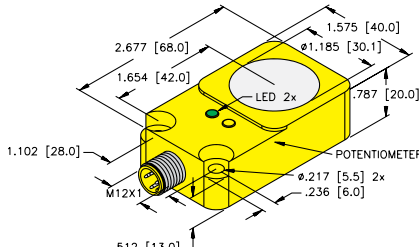
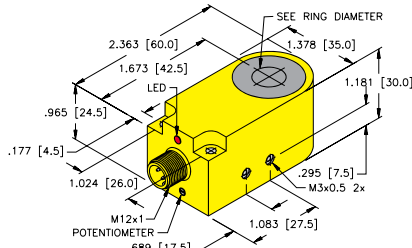
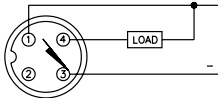
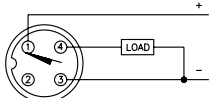
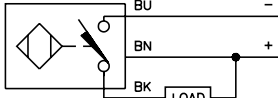
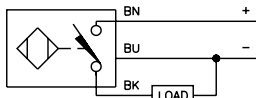
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi4-M12-AP6X-H1141/S1751 4607075	FM Approved	4	3-wire DC PNP	10-30 VDC	2000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	--	A	1	A4
Bi4-M12-AP6X/S1751 4607073	FM Approved	4	3-wire DC PNP	10-30 VDC	2000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	2M/ PVC	B	2	A4
Bi8-M18-AP6X-H1141/S1751 4615078	FM Approved	8	3-wire DC PNP	10-30 VDC	500	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	--	C	1	A4
Bi15-M30-AP6X-H1141/S97/S1751 4618574	FM Approved	15	3-wire DC PNP	10-30 VDC	500	≤200	-40 to +70	IP67	CPB	PA 12	N/A	YE	--	E	1	A4
Bi15-M30-AP6X/S1751 46185302	FM Approved	15	3-wire DC PNP	10-30 VDC	500	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	2M/ PVC	D	2	A4

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Ring Sensors

Plastic Housing Sensors with Cable or Connector and 3-Wire DC Output

Housing Style		Dimension Drawings	
		A  14 mm - Rectangular, Ring Sensor, M12 Eurofast Connector	
B  14 mm - Rectangular, Ring Sensor, Potted-In Cable		C  20 mm - Rectangular, Ring Sensor, M12 Eurofast Connector	
D  30 mm - Rectangular, Ring Sensor, M12 Eurofast Connector			
Wiring Diagrams/Mating Cordsets			
1  Mating Cordset: RK 4T-*		2  Mating Cordset: RK 4T-*	
		3 	
		4 	
A4			
3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Ring Sensors

Plastic Housing Sensors with Cable or Connector and 3-Wire DC Output

Part Number/ ID Number	Features	Minimum Target Diameter	Ring Diameter (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi10R-Q14-AN6X2-H1141 1407120	Static Output	≥ 2 mm	10	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	1	A4
Bi15R-Q14-AN6X2-H1141 1407220	Static Output	≥ 3 mm	15	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	1	A4
Bi20R-Q14-AN6X2-H1141 1407320	Static Output	≥ 4 mm	20	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	1	A4
Bi6R-Q14-AP6X2-H1141 14070	Static Output	≥ 2 mm	6	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	2	A4
Bi10R-Q14-AP6X2-H1141 14071	Static Output	≥ 2 mm	10	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	2	A4
Bi15R-Q14-AP6X2-H1141 14072	Static Output	≥ 3 mm	15	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	2	A4
Bi20R-Q14-AP6X2-H1141 14073	Static Output	≥ 4 mm	20	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	A	2	A4
Bi10R-Q14-AN6X2 1406120	Static Output	≥ 2 mm	10	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	2M/PVC	B	3	A4
Bi15R-Q14-AN6X2 1406220	Static Output	≥ 3 mm	15	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	2M/PVC	B	3	A4
Bi20R-Q14-AN6X2 1406320	Static Output	≥ 4 mm	20	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	2M/PVC	B	3	A4
Bi10R-Q14-AP6X2 14061	Static Output	≥ 2 mm	10	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	2M/PVC	B	4	A4
Bi15R-Q14-AP6X2 14062	Static Output	≥ 3 mm	15	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	2M/PVC	B	4	A4
Bi20R-Q14-AP6X2 14063	Static Output	≥ 4 mm	20	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	2M/PVC	B	4	A4
Bi30R-Q20-AN6X2-H1141 1407520	Static Output	≥ 6 mm	30	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	C	1	A4
Bi30R-Q20-AP6X2-H1141 14075	Static Output	≥ 6 mm	30	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PBT	POM	GN	YE	--	C	2	A4
Bi6R-W30-DAN6X-H1141 14037	Dynamic Output	≥ 0.6 mm	6	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	1	A4
Bi10R-W30-DAN6X-H1141 14039	Dynamic Output	≥ 1 mm	10	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	1	A4
Bi15R-W30-DAN6X-H1141 14041	Dynamic Output	≥ 1.5 mm	15	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	1	A4
Bi20R-W30-DAN6X-H1141 14043	Dynamic Output	≥ 2 mm	20	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	1	A4
Bi30R-W30-DAN6X-H1141 1404501	Dynamic Output	≥ 3 mm	30	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	1	A4
Bi6R-W30-DAP6X-H1141 14036	Dynamic Output	≥ 0.6 mm	6	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	2	A4
Bi10R-W30-DAP6X-H1141 14038	Dynamic Output	≥ 1 mm	10	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	2	A4
Bi15R-W30-DAP6X-H1141 14040	Dynamic Output	≥ 1.5 mm	15	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	2	A4
Bi20R-W30-DAP6X-H1141 14042	Dynamic Output	≥ 2 mm	20	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	2	A4
Bi30R-W30-DAP6X-H1141 14045	Dynamic Output	≥ 3 mm	30	3-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP67	PA 12	POM	N/A	YE	--	D	2	A4

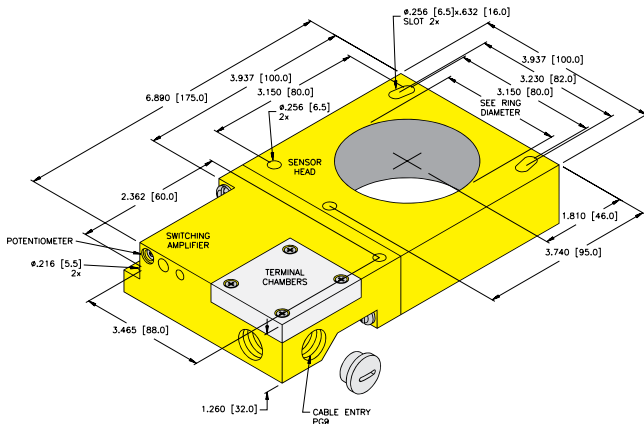
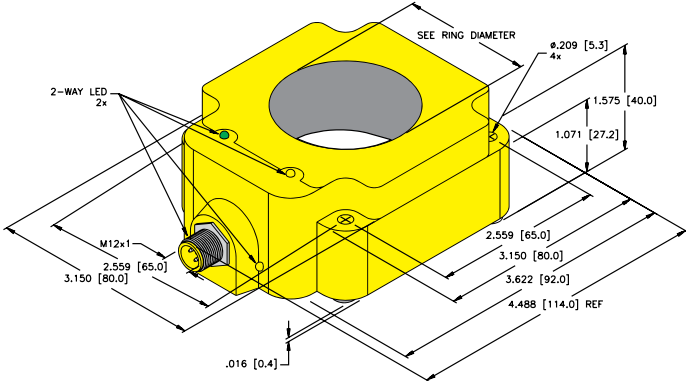
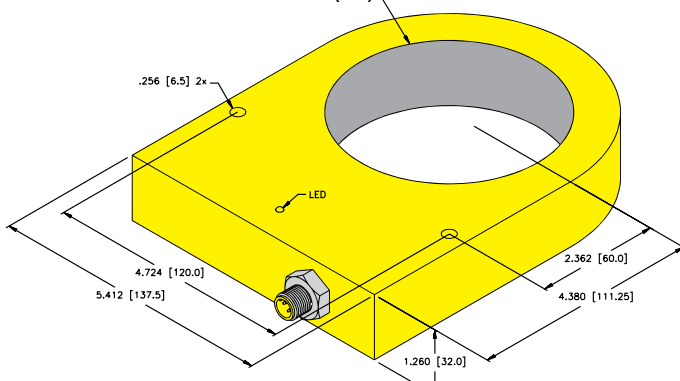
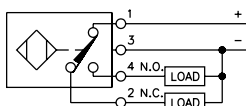
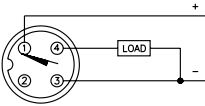
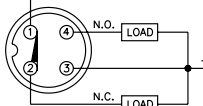
We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | Ring Sensors

Plastic Housing Sensors with a Large Diameter Ring and 3 or 4-Wire DC Output

Housing Style		Dimension Drawings	
		A  32 mm - Rectangular, Ring Sensor, Terminal Chamber	
B  80 mm - Rectangular, Ring Sensor, M12 Eurofast Connector		C  100 mm - Rectangular, Ring Sensor, M12 Eurofast Connector	
Wiring Diagrams/Mating Cordsets			
1 		2  Mating Cordset: RK 4T-*	
3  Mating Cordset: RK 4.4T-*			
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Ring Sensors

Plastic Housing Sensors with a Large Diameter Ring and 3 or 4-Wire DC Output

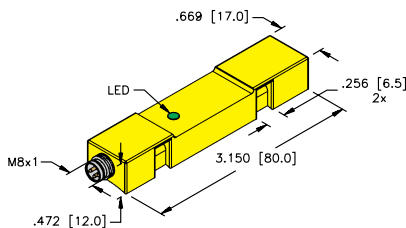
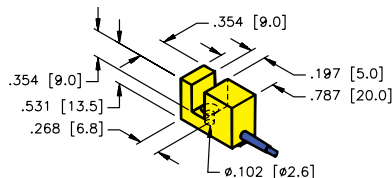
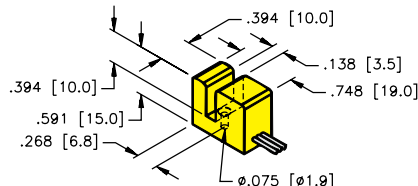
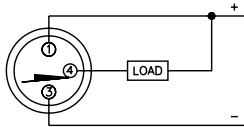
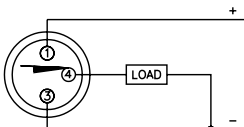
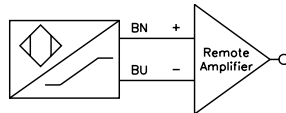
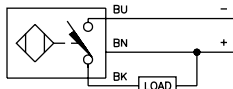
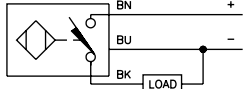
Part Number/ ID Number	Features	Minimum Target Diameter	Ring Diameter (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Dimension Drawings	Wiring Diagrams	Spec List
Ni20R-S32SR-VP44X 1440001	Static Output	≥ 0.4 mm	20	4-wire DC PNP	10-55 VDC	8	≤200	-25 to +70	IP67	ABS	ABS	N/A	YE	A	1	A4
Ni40R-S32SR-VP44X 1440005	Static Output	≥ 1 mm	40	4-wire DC PNP	10-55 VDC	8	≤200	-25 to +70	IP67	ABS	ABS	N/A	YE	A	1	A4
Ni65R-S32SR-VP44X 1440008	Static Output	≥ 12 mm	65	4-wire DC PNP	10-55 VDC	8	≤200	-25 to +70	IP67	ABS	ABS	N/A	YE	A	1	A4
Bi50R-Q80-AP6X2-H1141 1407530	Static Output	≥ 8 mm	50	3-wire DC PNP	10-30 VDC	10	≤200	-25 to +70	IP67	PBT	PA 66	GN	YE	B	2	A4
Bi65R-Q80-AP6X2-H1141 1407531	Static Output	≥ 10 mm	65	3-wire DC PNP	10-30 VDC	10	≤200	-25 to +70	IP67	PBT	PA 66	GN	YE	B	2	A4
Ni100R-S32XL-VP44X-H1141 1510301	Static Output	≥ 10mm	100	4-wire DC PNP	10-55 VDC	8	≤200	-25 to +70	IP67	POM	POM	N/A	YE	C	3	A4

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Tube and Slot Sensors

Plastic Housing Sensors with Cable or Connector

Housing Style		Dimension Drawings			
		A	 Tube Sensing Nonembeddable, M8 Picofast Connector		
B	 9 mm - Slot Sensor, Potted-In Cable	C	 10 mm - Slot Sensor, Potted-In Cable		
Wiring Diagrams/Mating Cordsets					
1	 Mating Cordset: PKG 3M-*	2	 Mating Cordset: PKG 3M-*	3	
4		5			
A1 2-wire DC NAMUR - (Y0 and Y1)					
Differential Travel (Hysteresis): 1-10% (5% typical) Nominal Voltage: 8.2 VDC (EN60947-5-6) Load Resistance: 1000 Ω Non-activated Current Consumption: ≥2.1 mA Activated Current Consumption: ≤1.2 mA Recommended Switching Point for Remote Amplifier: Amplifier: >1.2 to <2.1 mA, typ. 1.55 mA ON/1.75 mA OFF			Power-On Effect: Realized in Amplifier Reverse Polarity Protection: Incorporated Wire-Break Protection: Realized in Amplifier Transient Protection: Realized in Amplifier Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance		
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)					
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)			Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance		

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Tube and Slot Sensors

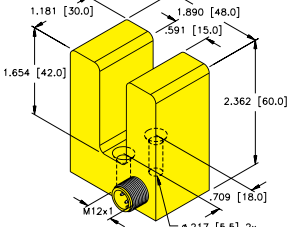
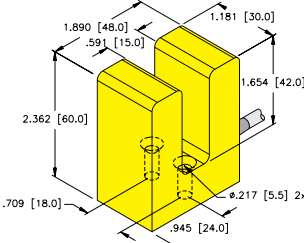
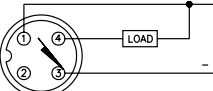
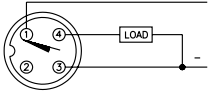
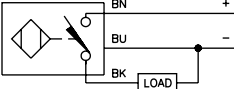
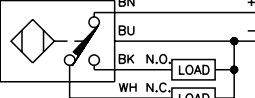
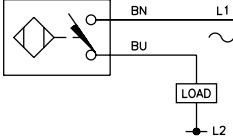
Plastic Housing Sensors with Cable or Connector

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Ni20U-TS12-AN6X2-V1131 1625822	Uprox+	20	3-wire DC NPN	10-30 VDC	8	≤200	-25 to +70	IP68	PBT	PBT	GN	YE	--	A	1	A4
Ni20U-TS12-AP6X2-V1131 1646640	Uprox+	20	4-wire DC PNP	10-30 VDC	8	≤200	-25 to +70	IP68	PBT	PBT	GN	YE	--	A	2	A4
Si5-K09-Y1 0.5M 10240		5	2-wire DC NAMUR	5-30 VDC	5000	Remote	-25 to +70	IP67	PBT	PBT	N/A	N/A	0.5M/PVC	B	3	A1
Si3.5-K10-AN7 17190		3.5	3-wire DC NPN	10-30 VDC	2000	≤200	-25 to +70	IP67	PBT	PBT	N/A	N/A	2M/PVC	C	4	A4
Si3.5-K10-AP6X 1650001		3.5	3-wire DC PNP	10-30 VDC	2000	≤200	-25 to +70	IP67	PBT	PBT	N/A	YE	2M/PVC	C	5	A4
Si3.5-K10-Y1 10365		3.5	2-wire DC NAMUR	5-30 VDC	3000	Remote	-25 to +70	IP67	PBT	PBT	N/A	N/A	2M/PVC	C	3	A1

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Slot Sensors
Plastic Housing Sensors with Cable or Connector

Housing Style 		Dimension Drawings  30 mm - Slot Sensor, M12 Eurofast Connector	
B  30 mm - Slot Sensor, Potted-In Cable			
Wiring Diagrams/Mating Cordsets			
1  Mating Cordset: RK 4T-*		2  Mating Cordset: RK 4T-*	
4 		5 	
6 			
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	
A6 2-wire AC/DC w/o Short-Circuit Protection - (AZ, RZ, FZ)			
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA Minimum Load Current: ≥3.0 mA		Inrush Current: ≤8 A (≤10ms max. 5 Hz) ≤1 A (≤10 ms max. 5 Hz) 12 mm ≤0.2 A (≤10 ms max. 0.2 Hz) 8 mm Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	



Specialty Sensors | Slot Sensors

Plastic Housing Sensors with Cable or Connector

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Si15-K30-AN6X-H1141 1605107		15	3-wire DC NPN	10-30 VDC	500	≤200	-25 to +70	IP67	PBT	PBT	N/A	YE	--	A	1	A4
Si15-K30-AP6X-H1141 1605007		15	3-wire DC PNP	10-30 VDC	500	≤200	-25 to +70	IP67	PBT	PBT	N/A	YE	--	A	2	A4
Si15-K30-AN6X 1605003		15	3-wire DC NPN	10-30 VDC	500	≤200	-25 to +70	IP67	PBT	PBT	N/A	YE	2M/PVC	B	3	A4
Si15-K30-AP6X 1605001		15	3-wire DC PNP	10-30 VDC	500	≤200	-25 to +70	IP67	PBT	PBT	N/A	YE	2M/PVC	B	4	A4
Si15-K30-VP6 1605030	Comp. Outputs	15	4-wire DC PNP	10-30 VDC	350	≤200	-25 to +70	IP67	PBT	PBT	N/A	N/A	2M/PVC	B	5	A4
Si15-K30-AZ3 13069		15	2-wire AC/DC	20-250 VAC/10- 300 VDC	20	≤400/300	-25 to +70	IP67	PBT	PBT	N/A	N/A	2M/PVC	B	6	A6

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Weld Nut Sensors

Threaded Metal Barrel with Smooth Sensing Probe and 3-Wire DC Output

Housing Style		Dimension Drawings	
		A Nut Sensor, 5-12 mm Diameter Nut, Potted-In Cable	
B Nut Sensor, 5-12 mm Diameter Nut, M12 Eurofast Connector		C Nut Sensor, 6-12 mm Diameter Nut, M12 Eurofast Connector	
D Nut Sensor, 6-12 mm Diameter Nut, M12 Eurofast Connector		E Nut Sensor, 10-20 mm Diameter Nut, M12 Eurofast Connector	
Wiring Diagrams/Mating Cordsets			
1 Mating Cordset: RK 4.4T-*		2 Mating Cordset: RK 4.4T-*	
A24 3-wire DC Nut Detection Sensor (AP, AN)			
Ripple: ≤10% Voltage Drop Across Conducting Sensor: ≤1 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current No-Load Current: ≤15 mA Off-State (Leakage) Current: ≤0.1 mA		Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes	

Note:
 OS* The optimal sensitive area for the 4.0 mm diameter probes has a width of 0.5 mm and is laser-engraved on the tip of the probe, 11.9 mm above the M12 thread.
 S** Sensitive area: Within this area the sensor signal changes when assembly parts are changed.
 M*** Maximum area: The maximum signal intensity is reached if the sensitive area is completely covered.

Optional teach adapter available, part number VB2-SP1.

We reserve the right to make technical alterations without prior notice.

Specialty Sensors | Weld Nut Sensors

Threaded Metal Barrel with Smooth Sensing Probe and 3-Wire DC Output

Part Number/ ID Number	Features	Nut Diameter	Output	Voltage	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
NIMFE-EM12/4.0L61-UP6X-0.3XYE-RS4/S1182 1600623	Titanium Nitride	5-12 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	0.3M/TPE	A	2	A24
NIMFE-EM12/4.0L61-UN6X-0.3XYE-RS4/S1182 1600624	Titanium Nitride	5-12 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	0.3M/TPE	A	1	A24
NIMFE-EM12/4.0L61-UP6X-H1141/S1182 1600621	Titanium Nitride	5-12 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	B	2	A24
NIMFE-EM12/4.0L61-UN6X-H1141/S1182 1600622	Titanium Nitride	5-12 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	B	1	A24
NIMFE-M12/4.6L88-UN6X-H1141 1600610		6-12 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	CPB	GN	YE	--	C	1	A24
NIMFE-EMT12/4.6L88-UN6X-H1141 1600618	PTFE Coated	6-12 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	C	1	A24
NIMFE-EM12/4.6L88-UN6X-H1141/S1182 1600617	Titanium Nitride	6-12 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	C	1	A24
NIMFE-M12/4.6L88-UP6X-H1141 1600608		6-12 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	CPB	GN	YE	--	C	2	A24
NIMFE-EMT12/4.6L88-UP6X-H1141 1600619	PTFE Coated	6-12 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	C	2	A24
NIMFE-EM12/4.6L88-UP6X-H1141/S1182 1600620	Titanium Nitride	6-12 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	C	2	A24
NIMFE-EM12/4.9L88-UP6X-H1141/S1182 1600616	Titanium Nitride	6-12 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	D	2	A24
NIMFE-M12/6.2L101-UN6X-H1141 1600611		10-20 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	CPB	GN	YE	--	E	1	A24
NIMFE-EMT12/6.2L101-UN6X-H1141 1600615	PTFE Coated	10-20 mm	3-wire DC NPN	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	E	1	A24
NIMFE-M12/6.2L101-UP6X-H1141 1600609		10-20 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	CPB	GN	YE	--	E	2	A24
NIMFE-EMT12/6.2L101-UP6X-H1141 1600613	PTFE Coated	10-20 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	E	2	A24
NIMFE-EM12/6.2L101-UP6X-H1141/S1182 1600612	Titanium Nitride	10-20 mm	3-wire DC PNP	10-30 VDC	≤200	-25 to +70	IP67	SS	GN	YE	--	E	2	A24

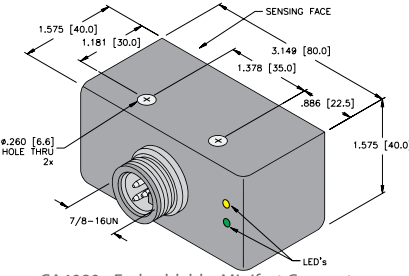
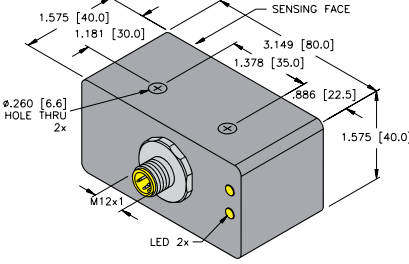
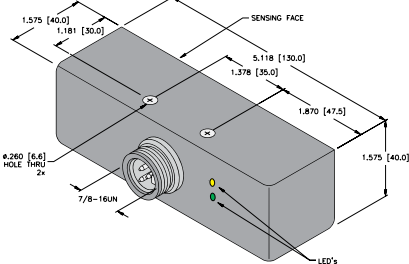
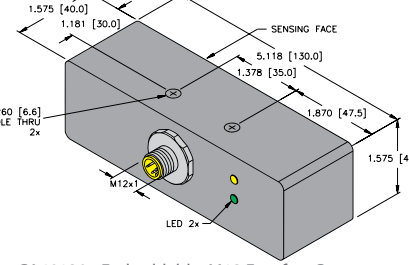
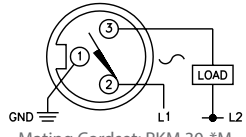
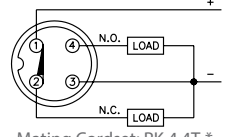
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Specialty Sensors



Specialty Sensors | Edge Detection Sensors

Rectangular Metal Housing with AC or DC Outputs and Integral Connector

Housing Style	Dimension Drawings
	A  CA4080 - Embeddable, Minifast Connector
B  CA4080 - Embeddable, M12 Eurofast Connector	C  CA40130 - Embeddable, Minifast Connector
D  CA40130 - Embeddable, M12 Eurofast Connector	
Wiring Diagrams/Mating Cordsets	
1  Mating Cordset: RKM 30-*M	2  Mating Cordset: RK 4.4T-*
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)	Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance
A5 2-wire AC/DC w/ Short-Circuit Protection - (ADZ, RDZ, FDZ, VDZ)	
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Trigger Current for Short Circuit Protection: AC: ≥440 mA; DC: ≥330 mA AC: ≥120 mA; DC: ≥120 mA Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA (AC) ≤1.5 mA (DC)	Minimum Load Current: ≥3.0 mA Inrush Current: ≤3 A (≤20 ms, max 5 Hz) Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

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Specialty Sensors | Edge Detection Sensors

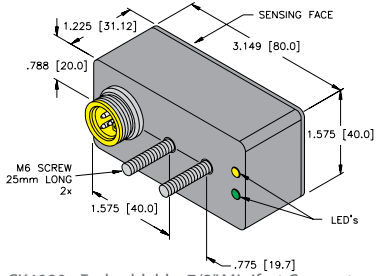
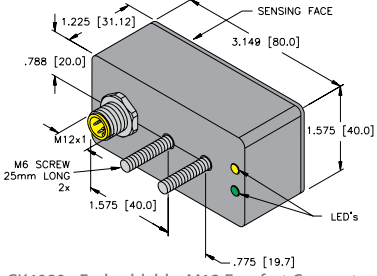
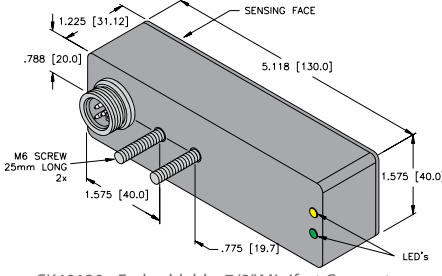
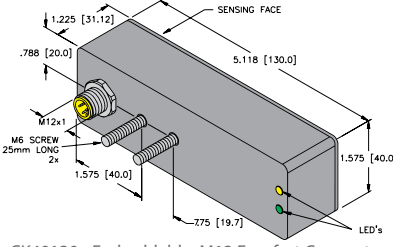
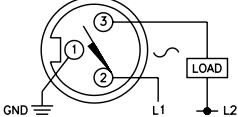
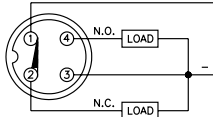
Rectangular Metal Housing with AC or DC Outputs and Integral Connector

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Dimension Drawings	Wiring Diagrams	Spec List
Bi20-CA4080-ADZ30X2-B1131 4283400		20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	TS	SF	GN	YE	A	1	A5
Bi20-CA4080-VP4X2-H1141 1625591		20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	TS	SF	GN	YE	B	2	A4
Bi20-CA4080-VP4X2-H1141/S1009 1625590	250 ms Off Delay	20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	TS	SF	GN	YE	B	2	A4
Bi20-CA40130-ADZ30X2-B1131 4283503		20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	TS	SF	GN	YE	C	1	A5
Bi20-CA40130-ADZ30X2-B1131/S1009 4283597	250 ms Off Delay	20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	TS	SF	GN	YE	C	1	A5
Bi20-CA40130-VP4X2-H1141 4283599		20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	TS	SF	GN	YE	D	2	A4

We reserve the right to make technical alterations without prior notice.

Specialty Sensors | Edge Detection Sensors

Rectangular Plastic Housing with AC or DC Outputs and Integral Connector

Housing Style	Dimension Drawings
	A  CK4080 - Embeddable, 7/8" Minifast Connector
B  CK4080 - Embeddable, M12 Eurofast Connector	C  CK40130 - Embeddable, 7/8" Minifast Connector
D  CK40130 - Embeddable, M12 Eurofast Connector	
Wiring Diagrams/Mating Cordsets	
1  Mating Cordset: RKM 30-*M	2  Mating Cordset: RK 4.4T-*
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)	Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance
A5 2-wire AC/DC w/ Short-Circuit Protection - (ADZ, RDZ, FDZ, VDZ)	
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Trigger Current for Short Circuit Protection: AC: ≥440 mA; DC: ≥330 mA AC: ≥120 mA; DC: ≥120 mA Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA (AC) ≤1.5 mA (DC)	Minimum Load Current: ≥3.0 mA Inrush Current: ≤3 A (≤20 ms, max 5 Hz) Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Edge Detection Sensors

Rectangular Plastic Housing with AC or DC Outputs and Integral Connector

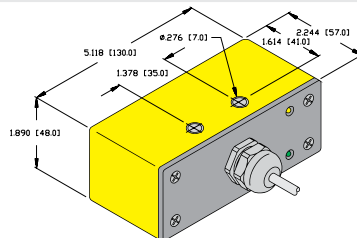
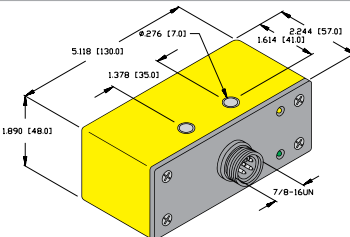
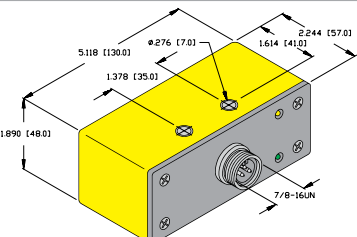
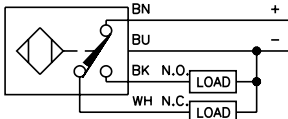
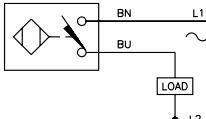
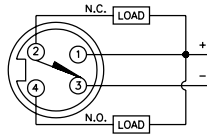
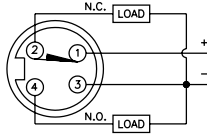
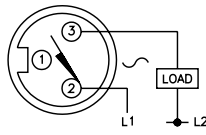
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Dimension Drawings	Wiring Diagrams	Spec List
Bi20-CK4080-ADZ30X2-B1131 4283493		20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	PBT	PBT	GN	RD	A	1	A5
Bi20-CK4080-ADZ30X2-B1131/S1009 4283495	250 ms Off Delay	20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	PBT	PBT	GN	RD	A	1	A5
Bi20-CK4080-VP4X2-H1141 4283491		20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	PBT	PBT	GN	YE	B	2	A4
Bi20-CK4080-VP4X2-H1141/S1009 4283496	250 ms Off Delay	20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	PBT	PBT	GN	YE	B	2	A4
Bi20-CK40130-ADZ30X2-B1131 4283589		20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	PBT	PBT	GN	YE	C	1	A5
Bi20-CK40130-ADZ30X2-B1131/S1009 4283593	250 ms Off Delay	20	2-wire AC/DC	20-250 VAC/10-300 VDC	30/100	≤400/300	-25 to +70	IP67	PBT	PBT	GN	YE	C	1	A5
Bi20-CK40130-VP4X2-H1141 42835911		20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	PBT	PBT	GN	YE	D	2	A4
Bi20-CK40130-VP4X2-H1141/S1009 42835963	250 ms Off Delay	20	4-wire DC PNP	10-65 VDC	100	≤400	-25 to +70	IP67	PBT	PBT	GN	YE	D	2	A4

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Can Sensors

Rectangular Plastic Housing with AC or DC Outputs and Integral Connector

Housing Style		Dimension Drawings	
		A  Q130 - Nonembeddable, Potted-In Cable	
B  Q130 - Nonembeddable, 7/8" Minifast Connector		C  Q130 - Nonembeddable, 7/8" Minifast Connector	
Wiring Diagrams/Mating Cordsets			
1 		2 	
3  Mating Cordset: RK 40-*M		4  Mating Cordset: RK 40-*M	
5  Mating Cordset: RK 30-*M			
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	
A5 2-wire AC/DC w/ Short-Circuit Protection - (ADZ, RDZ, FDZ, VDZ)			
Line Frequency: ≥50... ≤60 Hz Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤6.0 V Trigger Current for Short Circuit Protection: AC: ≥440 mA; DC: ≥330 mA AC: ≥120 mA; DC: ≥120 mA Continuous Load Current: AC: ≤400 mA; DC: ≤300 mA AC: ≤100 mA; DC: ≤100 mA Off-State (Leakage) Current: ≤1.7 mA (AC) ≤1.5 mA (DC)		Minimum Load Current: ≥3.0 mA Inrush Current: ≤3 A (≤20 ms, max 5 Hz) Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

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Specialty Sensors | Can Sensors

Rectangular Plastic Housing with AC or DC Outputs and Integral Connector

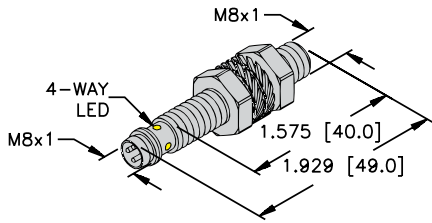
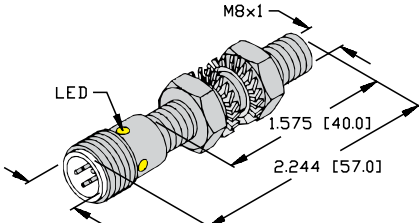
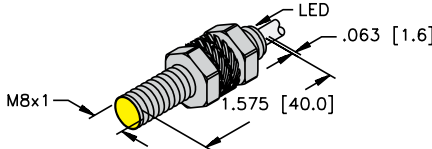
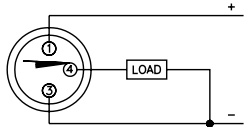
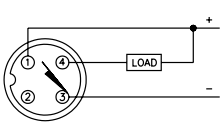
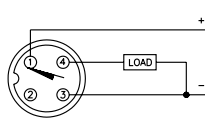
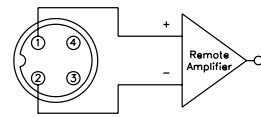
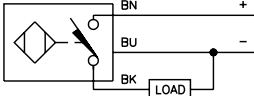
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Ni30-Q130-VP4X2 15179	Comp. Output	30	4-wire DC PNP	10-65 VDC	60	≤200	-25 to +70	IP67	PBT	PBT	GN	YE	2M/ PVC	A	1	A4
Ni30-Q130-ADZ30X2 42095		30	2-wire AC/DC	20-250 VAC/10- 300 VDC	30	≤400/300	-25 to +70	IP67	PBT	PBT	GN	RD	2M/ PVC	A	2	A5
Ni30-Q130-VN4X2-B2141 15180	Comp. Output	30	4-wire DC NPN	10-65 VDC	60	≤200	-25 to +70	IP67	PBT	PBT	GN	YE	--	B	3	A4
Ni30-Q130-VP4X2-B2141 1518001	Comp. Output	30	4-wire DC PNP	10-65 VDC	60	≤200	-25 to +70	IP67	PBT	PBT	GN	YE	--	B	4	A4
Ni30-Q130-ADZ30X2-B1131 42100		30	2-wire AC/DC	20-250 VAC/10- 300 VDC	30	≤400/300	-25 to +70	IP67	PBT	PBT	GN	YE	--	C	5	A5

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Inductive Magnetic Sensors

Threaded Metal Barrels Designed to Sense a Magnetic Field

Housing Style		Dimension Drawings	
		A  8 mm - Barrel, M8 Picofast Connector	
B  8 mm - Barrel, M12 Eurofast Connector		C  8 mm - Barrel, Potted-In Cable	
Wiring Diagrams/Mating Cordsets			
1  Mating Cordset: PKG 3M-*	2  Mating Cordset: RK 4T-*	3  Mating Cordset: RK 4T-*	
4  Mating Cordset: RK 4.21T-*	5 		
A25 3-wire DC Magnetic Barrel (AP, AN)			
Ripple: $\leq 10\%$ Differential Travel (Hysteresis): 1-10% Voltage Drop Across Conducting Sensor: $\leq 1.8\text{ V}$ Trigger Current for Short Circuit Protection: $\geq 220\text{ mA}$ on 200 mA Load Current $\geq 170\text{ mA}$ on 150 mA Load Current No-Load Current: $\leq 15\text{ mA}$ Off-State (Leakage) Current: $\leq 0.1\text{ mA}$		Temperature Drift: $\leq \pm 15\%$ Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 0.3\%$ of Full Scale	
A27 2-wire DC Namur Magnetic Barrel (Y1)			
Differential Travel (Hysteresis): 1-10% Nominal Voltage: 8.2 VDC (EN60947-5-6) Load Resistance: 1000 Ω Non-activated Current Consumption: $\leq 1.2\text{ mA}$ Activated Current Consumption: $\geq 2.1\text{ mA}$ Recommended Switching Point for Remote Amplifier: > 1.2 to $< 2.1\text{ mA}$, Amplifier: typ. 1.55 mA ON/1.75 mA OFF		Temperature Drift: $\leq \pm 10\%$ Reverse Polarity Protection: Incorporated Wire-Break Protection: Realized in Amplifier Transient Protection: Realized in Amplifier Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 0.3\%$ of Full Scale	

Note:
 Use with Turck actuation magnet to achieve longest switching distance.
 See page I18 for part numbers and details.

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Inductive Magnetic Sensors

Threaded Metal Barrels Designed to Sense a Magnetic Field

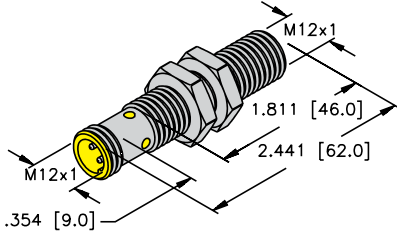
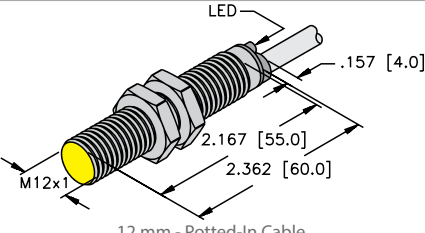
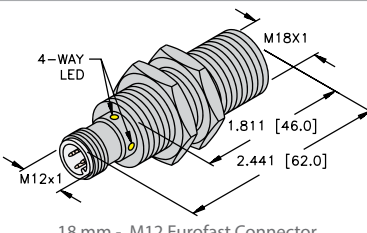
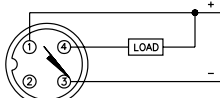
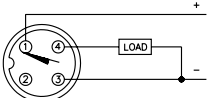
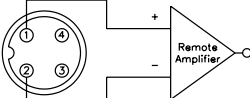
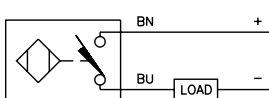
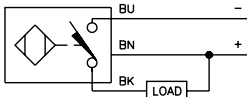
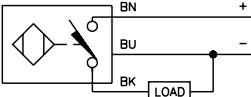
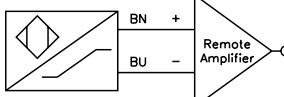
Part Number/ ID Number	Features	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
BIM-EG08-AP6X-V1131 4621314	Up to 78 mm Range	3-wire DC PNP	10-30 VDC	1000	≤150	-25 to +70	IP67	SS	PA 12	N/A	YE	--	A	1	A25
BIM-EG08-AN6X-H1341 4621301	Up to 78 mm Range	3-wire DC NPN	10-30 VDC	1000	≤150	-25 to +70	IP67	SS	PA 12	N/A	YE	--	B	2	A25
BIM-EG08-AP6X-H1341 4621311	Up to 78 mm Range	3-wire DC PNP	10-30 VDC	1000	≤150	-25 to +70	IP67	SS	PA 12	N/A	YE	--	B	3	A25
BIM-EG08-Y1X-H1341 1074001	Up to 78 mm Range	2-wire DC NAMUR	5-30 VDC	1000	Remote	-25 to +70	IP67	SS	PA 12	N/A	YE	--	B	4	A27
BIM-EG08-AP6X 4621310	Up to 78 mm Range	3-wire DC PNP	10-30 VDC	1000	≤150	-25 to +70	IP67	SS	PA 12	N/A	YE	2M/TPU	C	5	A25

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Inductive Magnetic Sensors

Threaded Metal Barrels Designed to Sense a Magnetic Field

Housing Style		Dimension Drawings	
		A  12 mm - M12 Eurofast Connector	
B  12 mm - Potted-In Cable		C  18 mm - M12 Eurofast Connector	
Wiring Diagrams/Mating Cordsets			
1  Mating Cordset: RK 4T-*	2  Mating Cordset: RK 4T-*; P-RKGV 4.43T-1699XL-*	3  Mating Cordset: RK 4.21T-*	4 
5 	6 	7 	
A25 3-wire DC Magnetic Barrel (AP, AN)			
Ripple: $\leq 10\%$ Differential Travel (Hysteresis): 1-10% Voltage Drop Across Conducting Sensor: $\leq 1.8\text{ V}$ Trigger Current for Short Circuit Protection: $\geq 220\text{ mA}$ on 200 mA Load Current $\geq 170\text{ mA}$ on 150 mA Load Current No-Load Current: $\leq 15\text{ mA}$ Off-State (Leakage) Current: $\leq 0.1\text{ mA}$		Temperature Drift: $\leq \pm 15\%$ Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 0.3\%$ of Full Scale	
A26 2-wire DC Magnetic Barrel (AG)			
Ripple: $\leq 10\%$ Differential Travel (Hysteresis): 1-10% Voltage Drop Across Conducting Sensor: $\leq 4.2\text{ V}$ Polarized Trigger Current for Short Circuit Protection: $\geq 220\text{ mA}$ on 200 mA Load Current Minimum Load Current: $\geq 3.0\text{ mA}$		Temperature Drift: $\leq \pm 15\%$ Off-State (Leakage) Current: $\leq 0.8\text{ mA}$ Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 0.3\%$ of Full Scale	
A27 2-wire DC Namur Magnetic Barrel (Y1)			
Differential Travel (Hysteresis): 1-10% Nominal Voltage: 8.2 VDC (EN60947-5-6) Load Resistance: 1000 Ω Non-activated Current Consumption: $\leq 1.2\text{ mA}$ Activated Current Consumption: $\geq 2.1\text{ mA}$ Recommended Switching Point for Remote Amplifier: > 1.2 to $< 2.1\text{ mA}$, Amplifier: typ. 1.55 mA ON/1.75 mA OFF		Temperature Drift: $\leq \pm 10\%$ Reverse Polarity Protection: Incorporated Wire-Break Protection: Realized in Amplifier Transient Protection: Realized in Amplifier Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 0.3\%$ of Full Scale	

Note:
 Use with Turck actuation magnet to achieve longest switching distance.
 See page I18 for part numbers and details.

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Inductive Magnetic Sensors

Threaded Metal Barrels Designed to Sense a Magnetic Field

Part Number/ ID Number	Features	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Dimension Drawings	Wiring Diagrams	Spec List
BIM-M12E-AN4X-H1141 1579914	Up to 90 mm Range	3-wire DC NPN	10-65 VDC	1000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	A	1	A25
BIM-EM12E-AP4X-H1141 1579915	Up to 90 mm Range	3-wire DC PNP	10-65 VDC	1000	≤200	-25 to +70	IP67	SS	POM	N/A	YE	A	2	A25
BIM-M12E-AP4X-H1141 1579913	Up to 90 mm Range	3-wire DC PNP	10-65 VDC	1000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	A	2	A25
BIM-M12E-AP6X-H1141/S1751 4681289	FM Approved	3-wire DC PNP	10-30 VDC	1000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	A	2	A25
BIM-M12E-Y1X-H1141 1074003	Up to 90 mm Range	2-wire DC NAMUR	5-30 VDC	1000	Remote	-25 to +70	IP67	CPB	PA 12	N/A	YE	A	3	A27
BIM-M12E-AG4X 44302	Up to 90 mm Range	2-wire DC	10-65 VDC	1000	≤100	-25 to +70	IP67	CPB	PA 12	N/A	YE	B	4	A26
BIM-M12E-AN4X 1579912	Up to 90 mm Range	3-wire DC PNP	10-65 VDC	1000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	B	5	A25
BIM-EM12E-AP4X 1579918	Up to 90 mm Range	3-wire DC PNP	10-65 VDC	1000	≤200	-25 to +70	IP67	SS	POM	N/A	YE	B	6	A25
BIM-M12E-AP4X/S90 1579911	Up to 90 mm Range	3-wire DC PNP	10-65 VDC	1000	≤200	-25 to +70	IP67	CPB	PA 12	N/A	YE	B	6	A25
BIM-EM12E-Y1X 1070036	Up to 90 mm Range	2-wire DC NAMUR	5-30 VDC	1000	Remote	-25 to +70	IP67	SS	POM	N/A	YE	B	7	A27
BIM-M12E-Y1X 1074002	Up to 90 mm Range	2-wire DC NAMUR	5-30 VDC	1000	Remote	-25 to +70	IP67	CPB	PA 12	N/A	YE	B	7	A27
BIM-EM18M-AP4X-H1141 1579933	Up to 90 mm Range	3-wire DC PNP	10-65 VDC	1000	≤200	-25 to +70	IP67	SS	POM	N/A	YE	C	2	A25

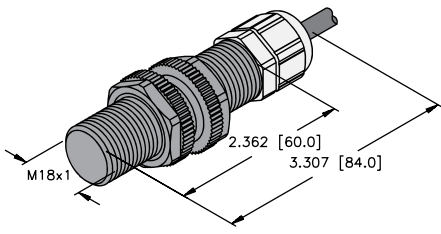
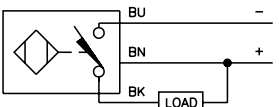
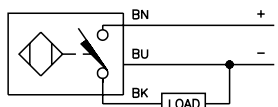
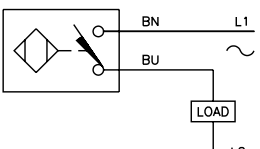
We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | Submersible Sensors

Threaded Plastic Barrel Sensors with Cable for Underwater Applications

Housing Style		Dimension Drawings	
		A  18 mm - Embeddable, Full Threading, Potted-In Cable	
Wiring Diagrams/Mating Cordsets			
1	2		3
			
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: $\leq 10\%$ Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: $\leq 1.8\text{ V}$ Trigger Current for Short Circuit Protection: $\geq 220\text{ mA}$ on 200 mA Load Current $\geq 170\text{ mA}$ on 150 mA Load Current $\geq 120\text{ mA}$ on 100 mA Load Current Off-State (Leakage) Current: $\leq 0.1\text{ mA}$ No-Load Current: $\leq 15\text{ mA}$ (Ferrite, Uprox) $\leq 20\text{ mA}$ (Uprox+, Uprox3)		Time Delay Before Availability: $\leq 8\text{ ms}$ Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: $\leq \pm 10\%$ Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: $\leq 2\%$ of Rated Operating Distance	
A6 2-wire AC/DC w/o Short-Circuit Protection - (AZ, RZ, FZ)			
Line Frequency: $\geq 50\text{...} \leq 60\text{ Hz}$ Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: $\leq 6.0\text{ V}$ Continuous Load Current: AC: $\leq 400\text{ mA}$; DC: $\leq 300\text{ mA}$ AC: $\leq 100\text{ mA}$; DC: $\leq 100\text{ mA}$ Off-State (Leakage) Current: $\leq 1.7\text{ mA}$ Minimum Load Current: $\geq 3.0\text{ mA}$		Inrush Current: $\leq 8\text{ A}$ ($\leq 10\text{ ms}$ max. 5 Hz) $\leq 1\text{ A}$ ($\leq 10\text{ ms}$ max. 5 Hz) 12 mm $\leq 0.2\text{ A}$ ($\leq 10\text{ ms}$ max. 0.2 Hz) 8 mm Power-On Effect: Per IEC 947-5-2 Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 2\%$ of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Submersible Sensors

Threaded Plastic Barrel Sensors with Cable for Underwater Applications

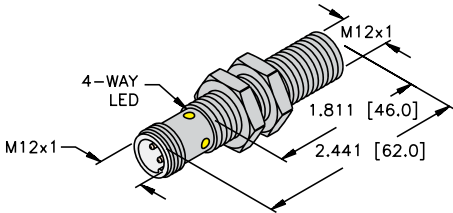
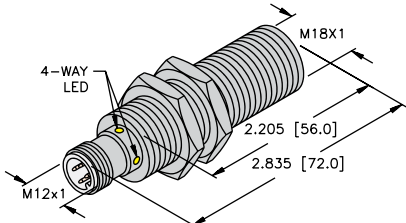
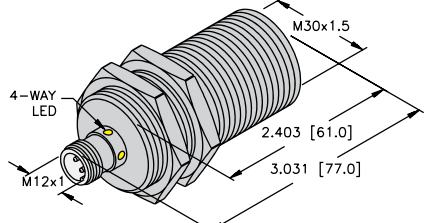
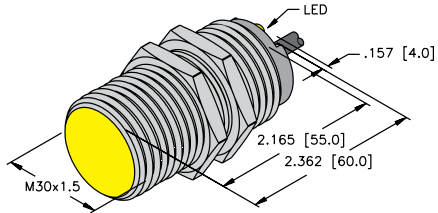
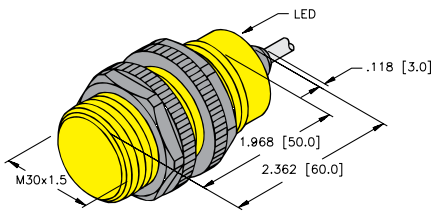
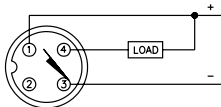
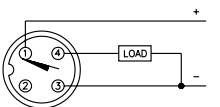
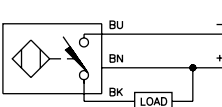
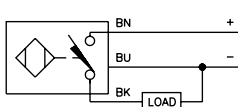
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi5-P18-AN6/S139-S1261 1650239	Submersible	5	3-wire DC NPN	10-30 VDC	500	≤200	-25 to +70	IP68	POM	PA 12	N/A	N/A	2M/TPE	A	1	A4
Bi5-P18-AP6/S139-S1261 1650234	Submersible	5	3-wire DC PNP	10-30 VDC	500	≤200	-25 to +70	IP68	POM	PA 12	N/A	N/A	2M/TPE	A	2	A4
Bi8U-P18-AP6/S139-S1261 1650230	Submersible, Uprox	8	3-wire DC PNP	10-30 VDC	2000	≤200	-30 to +85	IP68	POM	PA 12	N/A	N/A	2M/TPE	A	2	A4
Bi5-P18-AZ3/S139-S1261 1384307	Submersible	5	2-wire AC	20-250 VAC	20	≤400	-25 to +70	IP68	POM	PA 12	N/A	N/A	2M/TPE	A	3	A6

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Selective Metal Sensors

Threaded Barrel Sensors Designed to Sense Nonferrous Metals Only

Housing Style		Dimension Drawings	
		A  12 mm - Embeddable, M12 Eurofast Quick Disconnect	
B  18 mm - Embeddable, M12 Eurofast Quick Disconnect		C  30 mm - Embeddable, M12 Eurofast Quick Disconnect	
D  30 mm - Embeddable, Potted-In Cable		E  30 mm - Embeddable, Potted-In Cable, Partial Threading	
Wiring Diagrams/Mating Cordsets			
1  Mating Cordset: RKV 4T-*	2  Mating Cordset: RKV 4T-*	3 	4 
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)			
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)		Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Selective Metal Sensors

Threaded Barrel Sensors Designed to Sense Nonferrous Metals Only

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi3NF-EM12HE-AP6X2-H1141 1615001	Senses nonferrous metals only	3	3-wire DC PNP	10-30 VDC	3000	≤200	0 to +60	IP67	SS	SF	GN	YE	--	A	2	A4
Bi5NF-EM18HE-AN6X2-H1141 1615004	Senses nonferrous metals only	5	3-wire DC NPN	10-30 VDC	2500	≤200	0 to +60	IP67	SS	SF	GN	YE	--	B	1	A4
Bi5NF-EM18HE-AP6X2-H1141 1615000	Senses nonferrous metals only	5	3-wire DC PNP	10-30 VDC	2500	≤200	0 to +60	IP67	SS	SF	GN	YE	--	B	2	A4
Bi10NF-EM30HE-AN6X2-H1141 1615005	Senses nonferrous metals only	10	3-wire DC NPN	10-30 VDC	2000	≤200	0 to +60	IP67	SS	SF	GN	YE	--	C	1	A4
Bi10NF-EM30HE-AP6X2-H1141 1615002	Senses nonferrous metals only	10	3-wire DC PNP	10-30 VDC	2000	≤200	0 to +60	IP67	SS	SF	GN	YE	--	C	2	A4
Bi10NF-M30-AN6X 16161	Senses nonferrous metals only	10	3-wire DC NPN	10-30 VDC	500	≤200	0 to +60	IP67	CPB	PA 12	N/A	YE	2M/ PVC	D	3	A4
Bi10NF-M30-AP6X 16061	Senses nonferrous metals only	10	3-wire DC PNP	10-30 VDC	500	≤200	0 to +60	IP67	CPB	PA 12	N/A	YE	2M/ PVC	D	4	A4
Bi10NF-S30-AN6X 16215	Senses nonferrous metals only	10	3-wire DC NPN	10-30 VDC	2000	≤200	0 to +60	IP67	PA 12	PA 12	N/A	YE	2M/ PVC	E	3	A4
Bi10NF-S30-AP6X 16115	Senses nonferrous metals only	10	3-wire DC PNP	10-30 VDC	2000	≤200	0 to +60	IP67	PA 12	PA 12	N/A	YE	2M/ PVC	E	4	A4

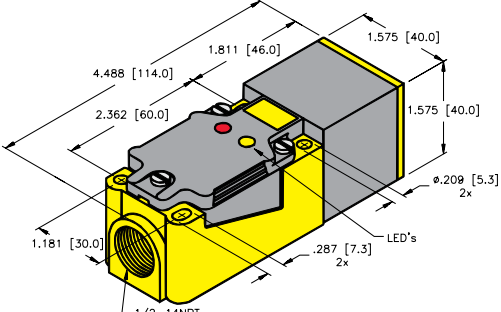
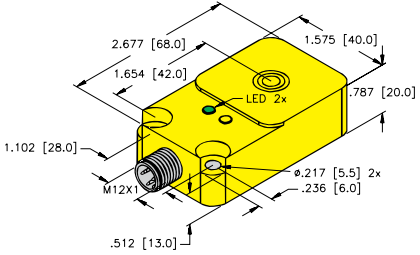
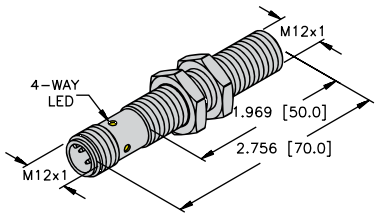
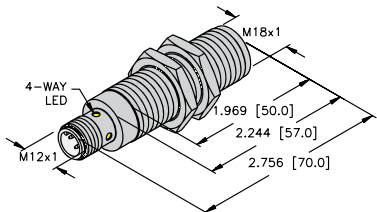
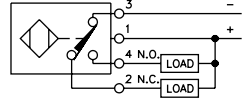
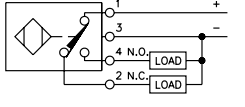
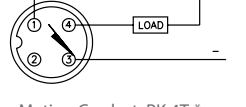
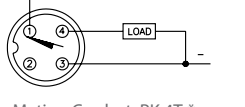
We reserve the right to make technical alterations without prior notice.

Specialty Sensors



Specialty Sensors | Selective Metal Sensors

Rectangular and Barrel Sensors Designed to Sense Nonferrous or Ferrous Metals Only

Housing Style	Dimension Drawings
	A  CP40 - Nonembeddable, Terminal Chamber
B  Q20 - Nonembeddable, M12 Eurofast Quick Disconnect	C  12 mm - Embeddable, M12 Eurofast Quick Disconnect
D  18 mm - Embeddable, M12 Eurofast Quick Disconnect	
Wiring Diagrams/Mating Cordsets	
1 	2 
3  Mating Cordset: RK 4T-*	4  Mating Cordset: RK 4T-*
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤1.8 V Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current ≥170 mA on 150 mA Load Current ≥120 mA on 100 mA Load Current Off-State (Leakage) Current: ≤0.1 mA No-Load Current: ≤15 mA (Ferrite, Uprox) ≤20 mA (Uprox+, Uprox 3)	Time Delay Before Availability: ≤8 ms Power-On Effect: Per IEC 947-5-2 Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Transient Protection: Per EN 60947-5-2 Temperature Drift: ≤±10% Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance
A28 3-wire DC Ferrous Only Sensing (AP)	
Ripple: ≤10% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤2.5 V Trigger Current for Short Circuit Protection: ≥120 mA on 100 mA Load Current No-Load Current: ≤20 mA Off-State (Leakage) Current: ≤0.1 mA	Temperature Drift: ≤±10% Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance

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Specialty Sensors | Selective Metal Sensors

Rectangular and Barrel Sensors Designed to Sense Nonferrous or Ferrous Metals Only

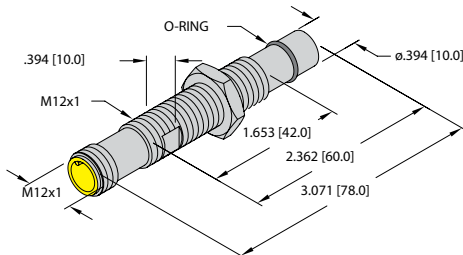
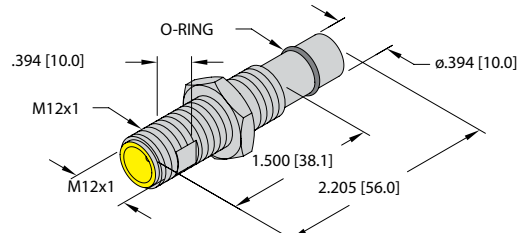
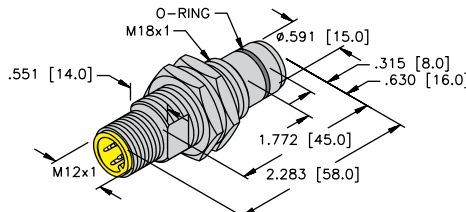
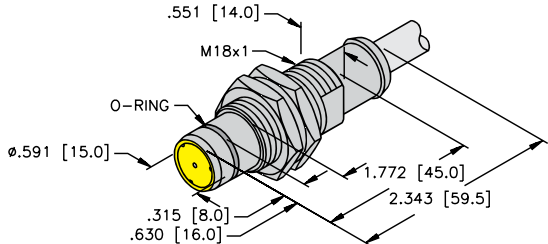
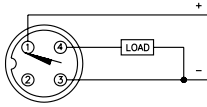
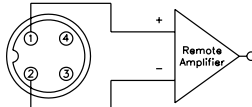
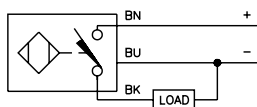
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Dimension Drawings	Wiring Diagrams	Spec List
Ni20NF-CP40-VN4X2 15282	Senses nonferrous metals only	20	4-wire DC NPN	10-65 VDC	100	≤200	0 to +60	IP67	PBT	PBT	GN	YE	A	1	A4
Ni20NF-CP40-VP4X2 15082	Senses nonferrous metals only	20	4-wire DC PNP	10-65 VDC	100	≤200	0 to +60	IP67	PBT	PBT	GN	YE	A	2	A4
Ni25NF-Q20-AN6X2-H1141 1602710	Senses nonferrous metals only	25	3-wire DC NPN	10-30 VDC	25	≤200	0 to +60	IP67	PBT	PBT	GN	YE	B	3	A4
Bi2.5FE-EM12FE-AP6X-H1141 1615011	Senses ferrous metals only	2.5	3-wire DC PNP	10-30 VDC	1000	≤100	-25 to +70	IP67	SS	SS	N/A	YE	C	4	A28
Bi4.5FE-EM18FE-AP6X-H1141 1615012	Senses ferrous metals only	4.5	3-wire DC PNP	10-30 VDC	1000	≤100	-25 to +70	IP67	SS	SS	N/A	YE	D	4	A28

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | High Pressure

Partially Threaded Metal Barrel Pressure Resistant Sensors

Housing Style		Dimension Drawings	
		A 	
B 		C 	
D 			
12 mm - Embeddable, M12 Eurofast Connection, Pressure Resistant Barrel Sensor			
18 mm - Embeddable, M12 Eurofast Connection, Pressure Resistant Barrel Sensor			
18 mm - Embeddable, Potted-In Cable, Pressure Resistant Barrel Sensor			
Wiring Diagrams/Mating Cordsets			
1 		2 	
Mating Cordset: RKV 4T-*		Mating Cordset: RKV 4.21T-*	
3 			
A1 2-wire DC NAMUR - (Y0 and Y1)			
Differential Travel (Hysteresis): 1-10% (5% typical) Nominal Voltage: 8.2 VDC (EN60947-5-6) Load Resistance: 1000 Ω Non-Activated Current Consumption: ≥2.1 mA Activated Current Consumption: ≤1.2 mA Recommended Switching Point for Remote Amplifier: Amplifier: >1.2 to <2.1 mA, typ. 1.55 mA ON/1.75 mA OFF		Power-On Effect: Realized in Amplifier Reverse Polarity Protection: Incorporated Wire-Break Protection: Realized in Amplifier Transient Protection: Realized in Amplifier Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	
A29 3-wire DC High Pressure (AP)			
Ripple: ≤20% Differential Travel (Hysteresis): 3-15% (5% typical) Voltage Drop Across Conducting Sensor: ≤2 V, ≤1.8 V (Ext. Range) Trigger Current for Short Circuit Protection: ≥220 mA on 200 mA Load Current No-Load Current: ≤10 mA, ≤15 mA (Ext. Range) Off-State (Leakage) Current: ≤0.1 mA		Temperature Drift: ≤15%, ≤±10% (Ext. Range) Reverse Polarity Protection: Incorporated Wire-Break Protection: Incorporated Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: ≤2% of Rated Operating Distance	

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Specialty Sensors | High Pressure

Partially Threaded Metal Barrel Pressure Resistant Sensors

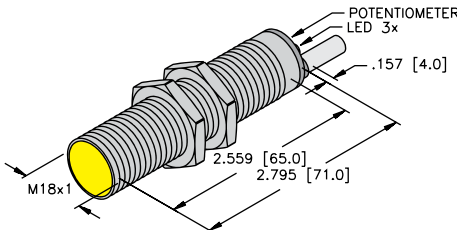
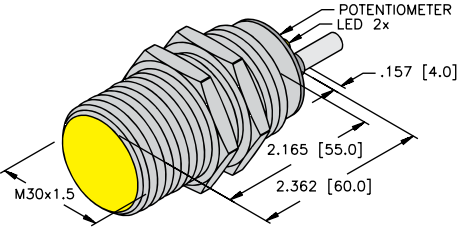
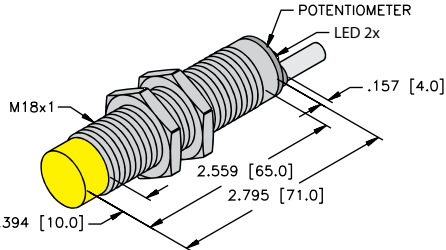
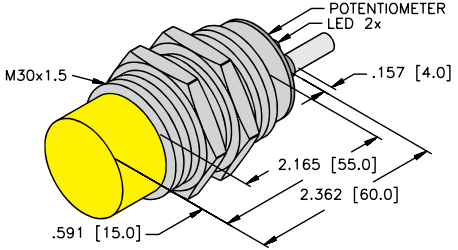
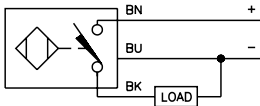
Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
BID1.5-G120KK-AP6-H1141 1682001	500 bar	1.5	3-wire DC PNP	10-30 VDC	600	≤200	-25 to +80	IP68	SS	CER	N/A	N/A	--	A	1	A29
BID1.5-G120-AP6-H1141 1682000	500 bar	1.5	3-wire DC PNP	10-30 VDC	600	≤200	-25 to +80	IP68	SS	CER	N/A	N/A	--	B	1	A29
BID2-G180-AP6-H1141/S212 16885	500 bar static/350 bar dynamic	2	3-wire DC PNP	10-30 VDC	2000	≤200	-25 to +85	IP67	SS	PA 12	N/A	N/A	--	C	1	A29
BID2-G180-Y0-H1141/S212 1088500	500 bar static/350 bar dynamic	2	2-wire Namur	5-30 VDC	2000	≤200	-25 to +70	IP67	SS	PA 12	N/A	N/A	--	C	2	A1
BID2-G180-AP6/S212 1688003	500 bar static/350 bar dynamic	2	3-wire DC PNP	10-30 VDC	2000	≤200	-25 to +85	IP67	SS	PA 12	N/A	N/A	2M/TPU	D	3	A29

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Rotational Speed Monitor

Threaded Metal Barrel for Target Detection on a Spinning Shaft

Housing Style		Dimension Drawings		
		A	 18 mm - Embeddable Rotational Speed Monitor, Potted-In Cable	
B	 30 mm - Embeddable Rotational Speed Monitor, Potted-In Cable	C	 18 mm - Nonembeddable Rotational Speed Monitor, Potted-In Cable	
D	 30 mm - Nonembeddable Rotational Speed Monitor, Potted-In Cable			
Wiring Diagrams/Mating Cordsets				
1				
A4 3 and 4-wire DC - (AN, RN, AP, RP, VN, VP)				
Ripple:		≤10%	Time Delay Before Availability:	≤8 ms
Differential Travel (Hysteresis):		3-15% (5% typical)	Power-On Effect:	Per IEC 947-5-2
Voltage Drop Across Conducting Sensor:		≤1.8 V	Reverse Polarity Protection:	Incorporated
Trigger Current for Short Circuit Protection:		≥220 mA on 200 mA Load Current	Wire-Break Protection:	Incorporated
		≥170 mA on 150 mA Load Current	Transient Protection:	Per EN 60947-5-2
		≥120 mA on 100 mA Load Current	Temperature Drift:	≤±10%
Off-State (Leakage) Current:		≤0.1 mA	Shock:	30 g, 11 ms
No-Load Current:		≤15 mA (Ferrite, Uprox)	Vibration:	55 Hz, 1 mm Amplitude in all 3 Planes
		≤20 mA (Uprox+, Uprox 3)	Repeatability:	≤2% of Rated Operating Distance

We reserve the right to make technical alterations without prior notice.



Specialty Sensors | Rotational Speed Monitor

Threaded Metal Barrel for Target Detection on a Spinning Shaft

Part Number/ ID Number	Features	Sensing Range (mm)	Output	Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
DBi5U-M18E-AP4X3 1582236	Rotational Speed Monitor	5	3-wire DC PNP	10-65 VDC	0.05-50	≤200	-30 to +85	IP67	CPB	PBT	EPTR	GN	YE/BU	2M/PVC	A	1	A4
DBi10U-M30-AP4X2 1582231	Rotational Speed Monitor	10	3-wire DC PNP	10-65 VDC	0.05-50	≤200	-30 to +85	IP67	CPB	PBT	EPTR	GN	YE/BU	2M/PVC	B	1	A4
DNI12U-M18E-AP4X3 1582235	Rotational Speed Monitor	12	3-wire DC PNP	10-65 VDC	0.05-50	≤200	-30 to +85	IP67	CPB	PBT	EPTR	GN	YE/BU	2M/PVC	C	1	A4
DNI20U-M30-AP4X3 1582233	Rotational Speed Monitor	20	3-wire DC PNP	10-65 VDC	0.05-50	≤200	-30 to +85	IP67	CPB	PBT	EPTR	GN	YE/BU	2M/PVC	D	1	A4

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