




Analog Sensors Selection Guide

Embeddable/Nonembeddable Rectangular			
			
Housing	8 mm	14 mm	20 mm
Sensing Range	7 mm	10 mm	15 mm
Pages	D5	D5	D5

Embeddable/Nonembeddable Rectangular			
			
Housing	40 mm	40 mm	80 mm
Sensing Range	15 - 25 mm	15 - 25 mm	50 mm
Pages	D7	D7	D7

Embeddable/Nonembeddable Barrels				
				
Housing	4 mm	5 mm	6.5 mm	8 mm
Sensing Range	1.5 mm	1.5 mm	1.5 mm	1.5 mm
Pages	D9	D9	D9	D9

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






Analog Sensors Selection Guide

Embeddable/Nonembeddable Barrels

			
Housing	12 mm	12 mm	18 mm
Sensing Range	2 - 5 mm	2 - 5 mm	5 - 10 mm
Pages	D11	D11	D11

Embeddable/Nonembeddable Barrels

			
Housing	18 mm	30 mm	30 mm
Sensing Range	5 - 10 mm	10 - 15 mm	10 - 15 mm
Pages	D13	D13	D13

Rings and Probe Style

			
Housing	14 mm	80 mm	18 mm
Sensing Range	20 mm	50 mm	40 - 70 mm
Pages	D15	D15	D15

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

Analog Sensors

Analog Sensor Part Number Key

B	I	15	-	M	30	-	LIU	Wiring Option*
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<p>Mounting</p> <p>B = embeddable N = nonembeddable W = position</p> <p>Principle of Operation</p> <p>I = inductive IM = inductive magnet operated</p> <p>Rated Operating Distance (mm)</p>	<p>Sensing Characteristics</p> <p>R = ring sensor</p> <p>Housing Material Modifier</p> <p>E = stainless steel</p> <p>Housing Style</p> <p>Barrel - Metal</p> <p>G = full threading, generally chrome plated brass M = partial threading, chrome plated brass</p> <p>Rectangular</p> <p>Q = metal or plastic, various rectangular styles</p> <p>Limit Switch</p> <p>CK = Stubby®, short plastic, various rectangular styles CP = Combiprox®, plastic housing, terminal chamber base with removable sensor</p> <p>Ring</p> <p>Q = small rectangular plastic housing, static output</p>	<p>Number of LEDs</p> <p>(blank) = no LEDs X = 1 LED</p> <p>Modifier</p>	<p>Output</p> <p>LF = frequency output LI(LU) = linear analog output current (LI, 15-30 VDC) or voltage (LU, 15-30 VDC) LIU = linear analog output (current and voltage, 15-30 VDC) SIU = analog output (non-linear)</p> <p>Secondary Barrel Modifier</p> <p>E = extended barrel length</p> <p>Housing Diameter or Height (mm)</p>
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NOTE:
Part number keys are to assist in identification only.
Verify new part numbers with factory; some configurations are not possible.

*See below for Wiring Options

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

Wiring Options*

A. Connectorized Sensor

BI15 - M30 - LIU -	H1	1	4	1
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<p>Connector Family</p> <p>H1 = Eurofast®, M12x1, metal or plastic, male V1 = Picofast®, snap and M8x1, metal, male (Q08 snap only)</p> <p>Connector/Sensor Transition</p> <p>1 = straight</p>	<p>Factory Code</p> <p>Example:</p> <p>1 = standard wiring</p> <p>Number of Pins</p>
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B. Potted Cable









Bi 5 - M18 - LIU -	7M
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<p>Cable Length</p> <p>Blank = 2 Meter cable 7M = 7 Meter cable</p>
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Analog Sensors

Common Applications for Linear Analog Sensors


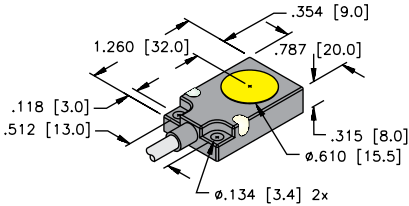
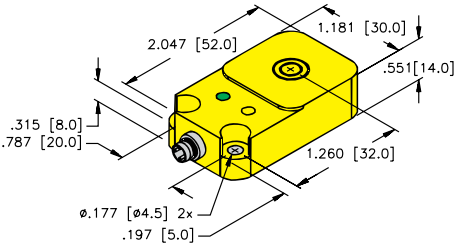
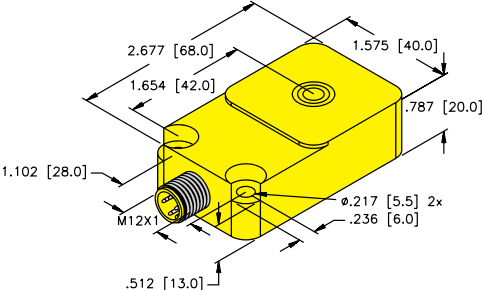
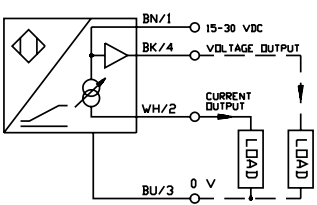
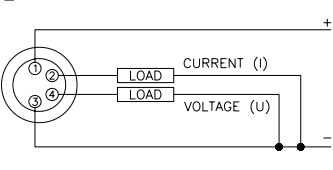
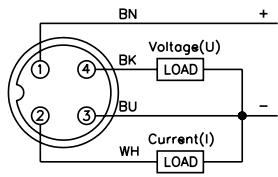
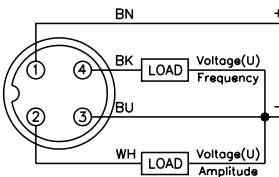
	<p>Position Feeding Over an Angled Target</p> <ul style="list-style-type: none"> • Actuation over an angled surface • Provide a 4-20 mA and/or 0-10 V output based upon target position
	<p>Eccentricity Sensing or Absolute Angle Positioning</p> <ul style="list-style-type: none"> • Sense pieces of different shapes and sizes (of ferritic or nonferritic materials) • Provide analog feedback on rotary cam position applications
	<p>Direct Actuation</p> <ul style="list-style-type: none"> • The highest accuracy is achieved if the sensor is directly actuated by the target. In order to utilize the full measuring range, it is important to work with an appropriately sized target. This may also be a moving part of the machine.
	<p>Part Deflection</p> <ul style="list-style-type: none"> • Tensile stress control applications • Measure the deflection of a metal target by using a guide mechanism and an analog sensor.
	<p>Probe Style Analog+ Proximity Sensor</p> <ul style="list-style-type: none"> • These sensors can be used to detect the depth of a blind hole or be used with a ring attached to a control arm that moves the ring over the probe
	<p>Identification and Sorting of Small Parts</p> <ul style="list-style-type: none"> • When screws, rivets, or other small objects fall through a ring style sensor, each part generates a characteristic output signal which can be easily identified
	<p>Position Control</p> <ul style="list-style-type: none"> • Position control can be easily accomplished by means of a cone shaped target. Measuring ranges can be adapted to specific sensing needs by using targets with an appropriate conical shape. These sensors enable precise and simple position detection, even if the targets feature a slight offset.
	<p>Thickness Measurement</p> <ul style="list-style-type: none"> • Detection and measurement of tools (drill bits, taps, etc.) can be accomplished to ensure proper size

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Analog Sensors

Analog Sensors | Q08, Q14, & Q20

Top Sensing Qpak Housing

Housing Style	Dimension Drawings
	<p>A</p>  <p>8 mm - Embeddable, Potted-In Cable</p>
<p>B</p>  <p>14 mm - Embeddable, M8 Picofast Connection</p>	<p>C</p>  <p>20 mm - Embeddable, M12 Eurofast Connection</p>
Wiring Diagrams/Mating Cordsets	
<p>1</p> 	<p>2</p>  <p>Mating Cordset: PKG 4M-*</p>
<p>3</p>  <p>Mating Cordset: RK 4.4T-*</p>	<p>4</p>  <p>Mating Cordset: RK 4.4T</p>
A7 3 and 4-wire DC Analog - (LIU, SIU)	
<p>Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10$ V/$R_L \geq 4.7$ kΩ Load Resistance Current Output: $0-20$ mA/$R_L \leq 0.4$ kΩ Temperature Drift: $\pm 0.06\%$ / °C LIU5: 4-20 mA, 0-10 V LIU2: 4-20 mA, 2-10 V</p>	<p>Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up) Short-Circuit Protection: Yes Reverse Polarity Protection: Incorporated</p>
A8 3 and 4-wire DC Analog - (LU)	
<p>Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10$ V/$R_L \geq 4.7$ kΩ Temperature Drift: $\pm 0.06\%$ / °C Reverse Polarity Protection: Incorporated Transient Protection: Per EN 60947-5-2</p>	<p>Short-Circuit Protection: Yes Wire-Break Protection: Yes Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up)</p>

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Analog Sensors | Q08, Q14, & Q20


Top Sensing Qpak Housing

Part Number/ ID Number	Features	Measuring Range (mm)	Response Freq. (Hz)	Linearity Deviation (% of full scale)	Output	Voltage	Output Voltage/ Current	Operating Temp. (°C)	Protection	Slew Rate V/ms, mA/ms	Housing	Face	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi7-Q08-LIU 1534605		1-4	200	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	Zinc	PA 12	2M/ TPU	A	1	A7
Bi10-Q14-LIU-V1141 1534603		3-8	140	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.8, 5.6	PBT	PBT	--	B	2	A7
Bi15-Q20-LIU-H1141 1534601		4-11	110	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.2, 4.4	PBT	PBT	--	C	3	A7
Bi15-Q20-2LU-H1141/S950 1534611	All Metal Detection	N/A	110	N/A	4-wire DC Voltage	15-30 VDC	0-10 VDC Amplitude, 0-10 VDC Phase	-25 to +70	IP67	2.2	PBT	PBT	--	C	4	A8

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Analog Sensors | CK40, CP40, & Q80

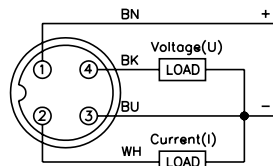
Rectangular Housings with Long Range

Housing Style	Dimension Drawings
	<p>A</p> <p>40 mm - Embeddable and Non-embeddable, M12 Eurofast Connection</p>
<p>B</p> <p>40 mm - Embeddable and Nonembeddable, Terminal Chamber</p>	<p>C</p> <p>80 mm - Nonembeddable, M12 Eurofast Connector</p>

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Wiring Diagrams/Mating Cordsets

1



Mating Cordset: RK 4.4T-*

A7

3 and 4-wire DC Analog - (LIU, SIU)

Ripple:	≤10%	Transient Protection:	Per EN 60947-5-2
No-Load Current:	≤8.0 mA	Shock:	30 g, 11 ms
Load Resistance Voltage Output:	0-10 V/R _L ≥4.7 kΩ	Vibration:	55 Hz, 1 mm Amplitude, in all 3 Planes
Load Resistance Current Output:	0-20 mA/R _L ≤0.4 kΩ	Repeatability:	≤1% of measuring range A-B (0.5% after 30 min. warm up)
Temperature Drift:	±0.06% / °C	Short-Circuit Protection:	Yes
LIU5:	4-20 mA, 0-10 V	Reverse Polarity Protection:	Incorporated
LIU2:	4-20 mA, 2-10 V		



Analog Sensors | CK40, CP40, & Q80

Rectangular Housings with Long Range


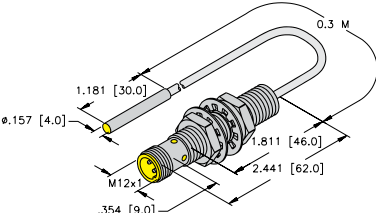
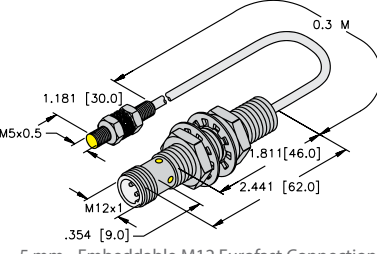
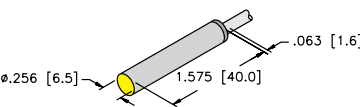
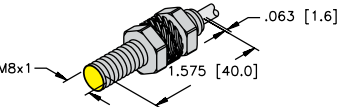
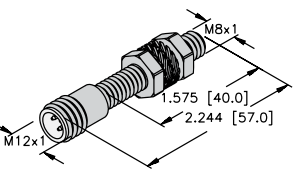
Part Number/ ID Number	Measuring Range (mm)	Response Freq. (Hz)	Linearity Deviation (% of full scale)	Output	Voltage	Output Voltage/ Current	Operating Temp. (°C)	Protection	Slew Rate V/ms, mA/ms	Housing	Face	Dimension Drawings	Wiring Diagrams	Spec List
Bi15-CK40-LIU-H1141 1537890	4-11	110	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.2, 4.4	PBT	PBT	A	1	A7
Ni25-CK40-LIU-H1141 1537891	5-25	30	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	0.6, 1.2	PBT	PBT	A	1	A7
Ni25-CK40-LIU2-H1141 1537892	5-25	30	0.05	4-wire DC Current or Voltage	15-30 VDC	2-10 V/4-20 mA	-10 to +70	IP67	0.6, 0.96	PBT	PBT	A	1	A7
Bi15-CP40-LIU 1535700	4-11	110	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.2, 4.4	PBT	PBT	B	1	A7
Ni25-CP40-LIU 1535547	5-25	30	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	0.6, 1.2	PBT	PBT	B	1	A7
Ni50-Q80-LIU-H1141 1535545	10-50	30	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	0.6, 1.2	PBT	PBT	C	1	A7

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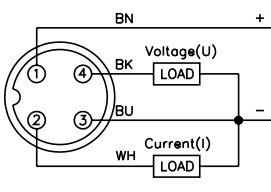
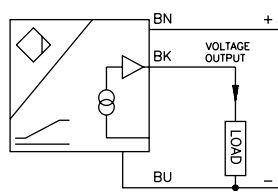
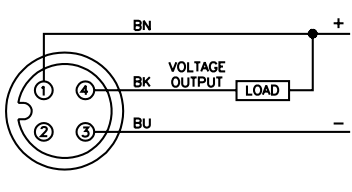


Analog Sensors | EH04, EG05, EH6.5, & EG08

Picoprox Barrel Styles

Housing Style	Dimension Drawings
	<p>A</p>  <p>4 mm - Embeddable M12 Eurofast Connection</p>
<p>B</p>  <p>5 mm - Embeddable M12 Eurofast Connection</p>	<p>C</p>  <p>6.5 mm - Embeddable, Potted-In Cable</p>
<p>D</p>  <p>8 mm - Embeddable, Potted-In Cable</p>	<p>E</p>  <p>8 mm - Embeddable, M12 Eurofast Connection</p>

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Wiring Diagrams/Mating Cordsets		
<p>1</p>  <p>Mating Cordset: RK 4.4T-*</p>	<p>2</p> 	<p>3</p>  <p>Mating Cordset: RK 4T-*</p>

A7	3 and 4-wire DC Analog - (LIU, SIU)	
<ul style="list-style-type: none"> Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10 V/R_L \geq 4.7$ kΩ Load Resistance Current Output: $0-20$ mA/$R_L \leq 0.4$ kΩ Temperature Drift: $\pm 0.06\%$ / $^{\circ}\text{C}$ LIU5: 4-20 mA, 0-10 V LIU2: 4-20 mA, 2-10 V 	<ul style="list-style-type: none"> Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up) Short-Circuit Protection: Yes Reverse Polarity Protection: Incorporated 	
A8	3 and 4-wire DC Analog - (LU)	
<ul style="list-style-type: none"> Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10 V/R_L \geq 4.7$ kΩ Temperature Drift: $\pm 0.06\%$ / $^{\circ}\text{C}$ Reverse Polarity Protection: Incorporated Transient Protection: Per EN 60947-5-2 	<ul style="list-style-type: none"> Short-Circuit Protection: Yes Wire-Break Protection: Yes Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up) 	



Analog Sensors | EH04, EG05, EH6.5, & EG08


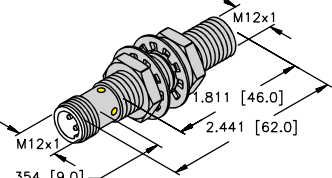
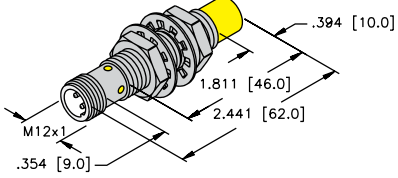
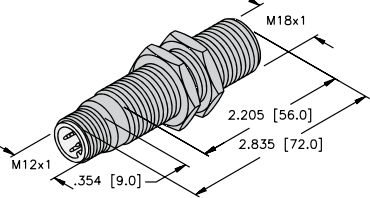
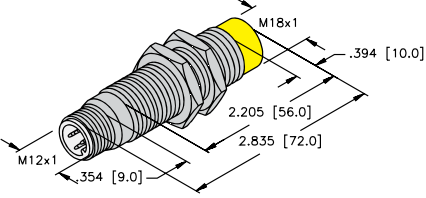
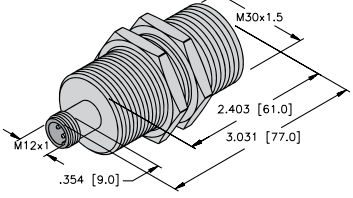
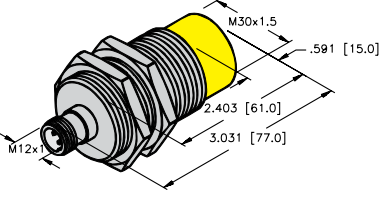
Picoprox Barrel Styles

Part Number/ ID Number	Measuring Range (mm)	Response Freq. (Hz)	Linearity Deviation (% of full scale)	Output	Voltage	Output Voltage/ Current	Operating Temp. (°C)	Protection	Slew Rate V/ms, mA/ms	Housing	Face	Dimension Drawings	Wiring Diagrams	Spec List
Bi1.5-EH04-0.3-M12-SIU-H1141 1533001	0.1-1.5	200	N/A	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	SS	PA 12	A	1	A7
Bi1.5-EG05-0.3-M12-SIU-H1141 1533005	0.1-1.5	200	N/A	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	SS	PA 12	B	1	A7
Bi1.5-EH6.5-LU 1533002	0.25-1.25	200	0.03	3-wire DC Voltage	15-30 VDC	0-10 V	-10 to +70	IP67	4, N/A	SS	PA 12	C	2	A8
Bi1.5-EG08-LU 1533003	0.25-1.25	200	0.03	3-wire DC Voltage	15-30 VDC	0-10 V	-10 to +70	IP67	4, N/A	SS	PA 12	D	2	A8
Bi1.5-EG08-LU-H1341 1533004	0.25-1.25	200	0.03	3-wire DC Voltage	15-30 VDC	0-10 V	-10 to +70	IP67	4, N/A	SS	PA 12	E	3	A8

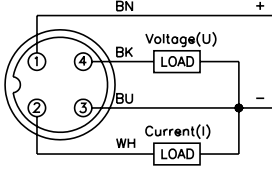
We reserve the right to make technical alterations without prior notice.

Analog Sensors | M12, M18, & M30

Threaded Barrel Styles with Connector

Housing Style	Dimension Drawings	
	<p>A</p>  <p>12 mm - Embeddable M12 Eurofast Connection</p>	<p>B</p>  <p>12 mm - Nonembeddable M12 Eurofast Connection</p>
<p>C</p>  <p>18 mm - Embeddable M12 Eurofast Connection</p>	<p>D</p>  <p>18 mm - Nonembeddable M12 Eurofast Connection</p>	<p>E</p>  <p>30 mm - Embeddable, M12 Eurofast Connection</p>
<p>F</p>  <p>30 mm - Nonembeddable, M12 Eurofast Connection</p>		

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Wiring Diagrams/Mating Cordsets	
<p>1</p>  <p>Mating Cordset: RK 4.4T-*</p>	

A7 3 and 4-wire DC Analog - (LIU, SIU)		
<p>Ripple: $\leq 10\%$</p> <p>No-Load Current: $\leq 8.0 \text{ mA}$</p> <p>Load Resistance Voltage Output: $0-10 \text{ V}/R_L \geq 4.7 \text{ k}\Omega$</p> <p>Load Resistance Current Output: $0-20 \text{ mA}/R_L \leq 0.4 \text{ k}\Omega$</p> <p>Temperature Drift: $\pm 0.06\% / ^\circ\text{C}$</p> <p>LIU5: 4-20 mA, 0-10 V</p> <p>LIU2: 4-20 mA, 2-10 V</p>	<p>Transient Protection: Per EN 60947-5-2</p> <p>Shock: 30 g, 11 ms</p> <p>Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes</p> <p>Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up)</p> <p>Short-Circuit Protection: Yes</p> <p>Reverse Polarity Protection: Incorporated</p>	



Analog Sensors | M12, M18, & M30

Threaded Barrel Styles with Connector


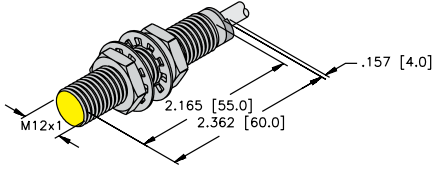
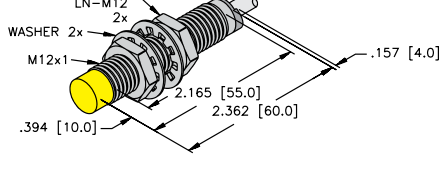
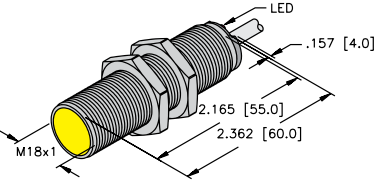
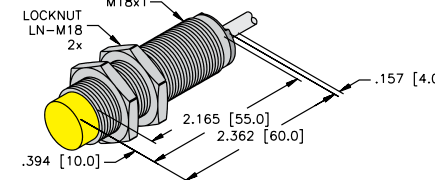
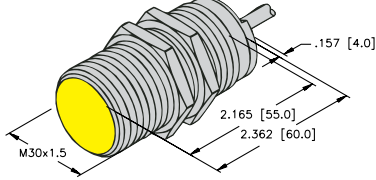
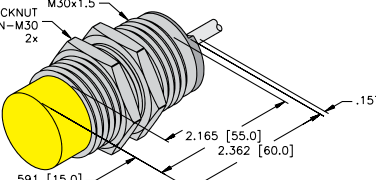
Part Number/ ID Number	Features	Measuring Range (mm)	Response Freq. (Hz)	Linearity Deviation (% of full scale)	Output	Voltage	Output Voltage/ Current	Operating Temp. (°C)	Protection	Slew Rate V/ms, mA/ms	Housing	Face	Dimension Drawings	Wiring Diagrams	Spec List
Bi2-M12-LIU-H1141 1535533		1-2.5	200	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	A	1	A7
Bi4-M12-LIU-H1141 1535531	Ext. Range	0.5-3	200	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	A	1	A7
Ni5-M12-LIU-H1141 1535535		0.5-4	100	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2, 4	CPB	PA 12	B	1	A7
Bi5-M18E-LIU-H1141 1536205		2-4	200	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	C	1	A7
Bi8-M18E-LIU-H1141 1535561	Ext. Range	1-5	200	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	C	1	A7
Ni8-M18E-LIU-H1141 1536302		1-5	100	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2, 4	CPB	PA 12	D	1	A7
Ni10-M18E-LIU-H1141 1535562	Ext. Range	1-7	100	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2, 4	CPB	PA 12	D	1	A7
Bi10-M30E-LIU-H1141 1537003		3-8	140	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.8, 5.6	CPB	PA 12	E	1	A7
Bi15-M30E-LIU-H1141 1535563	Ext. Range	2-10	140	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.8, 5.6	CPB	PA 12	E	1	A7
Ni15-M30E-LIU-H1141 1535564		2-12	60	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	1.2, 2.4	CPB	PA 12	F	1	A7

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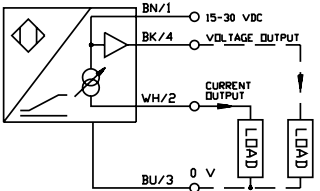
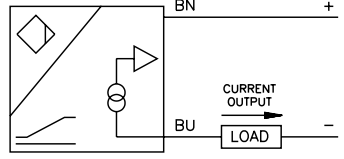
Analog Sensors

Analog Sensors | M12, M18, & M30

Threaded Barrel Styles with Cable

Housing Style	Dimension Drawings	
	<p>A</p>  <p>12 mm - Embeddable, Potted-In Cable</p>	<p>B</p>  <p>12 mm - Nonembeddable, Potted-In Cable</p>
<p>C</p>  <p>18 mm - Embeddable, Potted-In Cable</p>	<p>D</p>  <p>18 mm - Nonembeddable, Potted-In Cable</p>	<p>E</p>  <p>30 mm - Embeddable, Potted-In Cable</p>
<p>F</p>  <p>30 mm - Nonembeddable, Potted-In Cable</p>		

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

Wiring Diagrams/Mating Cordsets	
<p>1</p> 	<p>2</p> 

A7	3 and 4-wire DC Analog - (LIU, SIU)	
<p>Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10$ V/$R_L \geq 4.7$ kΩ Load Resistance Current Output: $0-20$ mA/$R_L \leq 0.4$ kΩ Temperature Drift: $\pm 0.06\%$ / $^{\circ}\text{C}$ LIU5: $4-20$ mA, $0-10$ V LIU2: $4-20$ mA, $2-10$ V</p>	<p>Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up) Short-Circuit Protection: Yes Reverse Polarity Protection: Incorporated</p>	
A9	2-wire DC Analog NAMUR - (LI-EXI)	
<p>Ripple: $\leq 10\%$ Current Output: $4-20$ mA Nominal Voltage: 8.2 VDC (EN60947-5-6) Power-On Effect: Realized in Amplifier Reverse Polarity Protection: Incorporated Wire-Break Protection: No Transient Protection: Realized in Amplifier</p>	<p>Temperature Drift: $\leq \pm 0.06\%$ $^{\circ}\text{C}$ Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up)</p>	



Analog Sensors | M12, M18, & M30

Threaded Barrel Styles with Cable

Part Number/ ID Number	Features	Measuring Range (mm)	Response Freq. (Hz)	Linearity Deviation (% of full scale)	Output	Voltage	Output Voltage/ Current	Operating Temp. (°C)	Protection	Slew Rate V/ms, mA/ms	Housing	Face	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi4-M12-LIU 1535532	Ext. Range	0.5-3	200	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	2M/ PVC	A	1	A7
Ni5-M12-LIU 1535536		0.5-4	100	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2, 4	CPB	PA 12	2M/ PVC	B	1	A7
Bi5-M18-LIU 1536000		2-4	200	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	2M/ PVC	C	1	A7
Bi8-M18-LIU 1535538	Ext. Range	1-5	200	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	4, 8	CPB	PA 12	2M/ PVC	C	1	A7
Bi8-M18-LI-EXI 1535528	Ext. Range, Use Barriers IM33-11EX-HI or IM43-13-SR	1-5	200	0.05	2-wire DC Current	14-30 VDC	4-20 mA	-10 to +70	IP67	N/A, 8	CPB	PA 12	2M/ PVC	C	2	A9
Ni8-M18-LIU 1536100	Ext. Range	1-5	100	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2, 4	CPB	PA 12	2M/ PVC	D	1	A7
Ni10-M18-LIU 1535540	Ext. Range	1-7	100	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2, 4	CPB	PA 12	2M/ PVC	D	1	A7
Bi10-M30-LIU 1535500		3-8	140	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.8, 5.6	CPB	PA 12	2M/ PVC	E	1	A7
Bi15-M30-LIU 1535543	Ext. Range	2-10	140	0.05	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	2.8, 5.6	CPB	PA 12	2M/ PVC	E	1	A7
Bi15-M30-LI-EXI 1535554	Ext. Range, Use Barriers IM33-11EX-HI or IM43-13-SR	2-10	140	0.05	2-wire DC Current	14-30 VDC	4-20 mA	-10 to +70	IP67	N/A, 4.48	CPB	PA 12	2M/ PVC	E	2	A9
Ni15-M30-LIU 1535300	Ext. Range	2-12	60	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/0-20 mA	-10 to +70	IP67	1.2, 2.4	CPB	PA 12	2M/ PVC	F	1	A7


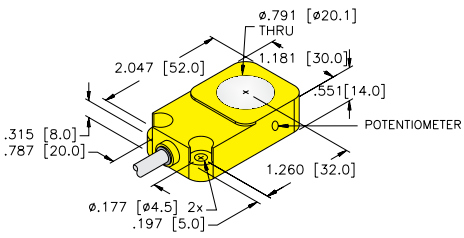
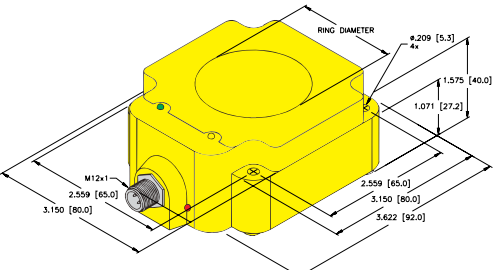
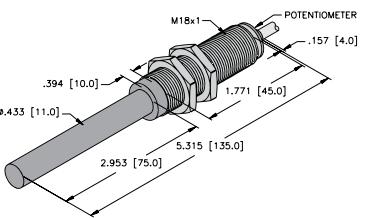
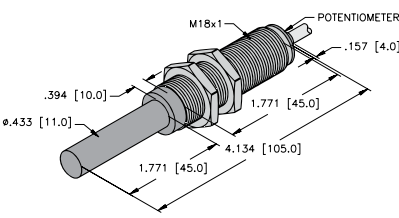
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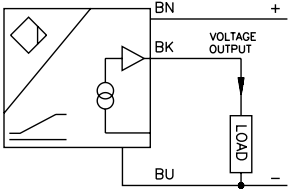
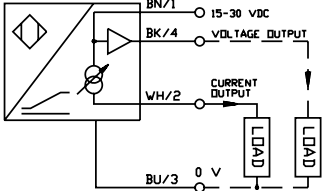
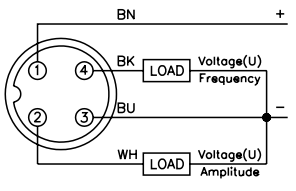
Analog Sensors



Analog Sensors | Q14, Q80, & M18

Probe and Ring Style Housings

Housing Style	Dimension Drawings	
	<p>A</p>  <p>14 mm - Embeddable, Ring Sensor, Potted-In Cable</p>	<p>B</p>  <p>80 mm - Embeddable, M12 Eurofast Connection</p>
<p>C</p>  <p>18 mm - Embeddable, Probe Style, Potted-In Cable</p>	<p>D</p>  <p>18 mm - Embeddable, Probe Style, Potted-In Cable</p>	

Wiring Diagrams/Mating Cordsets		
<p>1</p> 	<p>2</p> 	<p>3</p>  <p>Mating Cordset: RK 4.4T</p>

A7	3 and 4-wire DC Analog - (LIU, SIU)	
<p>Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10$ V/$R_L \geq 4.7$ kΩ Load Resistance Current Output: $0-20$ mA/$R_L \leq 0.4$ kΩ Temperature Drift: $\pm 0.06\%$ / $^{\circ}\text{C}$ LIU5: $4-20$ mA, $0-10$ V LIU2: $4-20$ mA, $2-10$ V</p>		<p>Transient Protection: Per EN 60947-5-2 Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up) Short-Circuit Protection: Yes Reverse Polarity Protection: Incorporated</p>
A8	3 and 4-wire DC Analog - (LU)	
<p>Ripple: $\leq 10\%$ No-Load Current: ≤ 8.0 mA Load Resistance Voltage Output: $0-10$ V/$R_L \geq 4.7$ kΩ Temperature Drift: $\pm 0.06\%$ / $^{\circ}\text{C}$ Reverse Polarity Protection: Incorporated Transient Protection: Per EN 60947-5-2</p>		<p>Short-Circuit Protection: Yes Wire-Break Protection: Yes Shock: 30 g, 11 ms Vibration: 55 Hz, 1 mm Amplitude, in all 3 Planes Repeatability: $\leq 1\%$ of measuring range A-B (0.5% after 30 min. warm up)</p>

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



Analog Sensors | Q14, Q80, & M18

Probe and Ring Style Housings

Part Number/ ID Number	Features	Measuring Range (mm)	Response Freq. (Hz)	Linearity Deviation (% of full scale)	Output	Voltage	Output Voltage/ Current	Operating Temp. (°C)	Protection	Slew Rate V/ms, mA/ms	Housing	Face	Cable Length/Jacket	Dimension Drawings	Wiring Diagrams	Spec List
Bi20R-Q14-LU 1535546		1-19	80	N/A	3-wire DC Voltage	15-30 VDC	0-10 V	-25 to +70	IP67	2.8, N/A	PBT	PBT	2M/ PVC	A	1	A8
Bi50R-Q80-2LU-H1141/S950 1534609	All Metal Detection	N/A	80	N/A	4-wire DC Voltage	15-30 VDC	0-10 VDC Amplitude, 1-10 VDC Phase	-25 to +70	IP67	1.6	PBT	PBT	--	B	3	A8
Wi70-M18-LIU5 1536600		0-70	200	0.03	4-wire DC Current or Voltage	15-30 VDC	0-10 V/4-20 mA	-10 to +70	IP67	4, 6.4	CPB	PA 12	2M/ PVC	C	2	A7
Wi40-M18-LIU5 1536603		0-40	40	0.02	4-wire DC Current or Voltage	15-30 VDC	0-10 V/4-20 mA	-10 to +70	IP67	0.8, 1.2	CPB	PA 12	2M/ PVC	D	2	A7

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