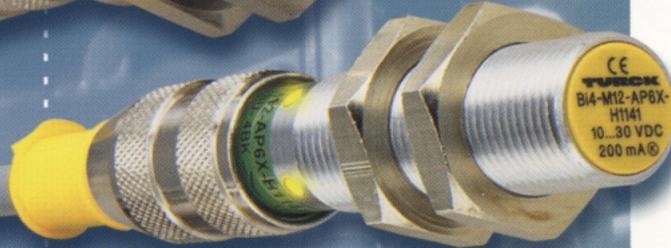


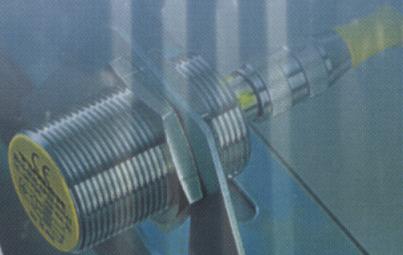
TURCK
works.

High Technology Sensors
and Automation Controls

**Extended
Range**
Proximity Sensors



**A Superior Solution
for Difficult Sensing
Environments**



TURCK

Extended Range Proximity Sensors

M Barrel



Barrel, Metal with Quick Disconnect Partial Threading

2-Wire DC  **eurofast**[®]
 10-65 VDC, Short-Circuit and Overload Protected
 Normally Open*

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Sinking	Sourcing	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 3-M12-AD4X-H1141	•	3	12	•	•	1	A	1	1000	M4405041	 eurofast Mating Cordsets RK 4.2T-2 (2 meter) For other styles see "Cordsets" catalog
Bi 7-M18-AD4X-H1141	•	7	18	•	•	3	A	1	500	M4414541	
Bi 12-M30-AD4X-H1141	•	12	30	•	•	5	A	1	400	M4417041	
Ni 8-M12-AD4X-H1141		8	12	•	•	2	A	1	1000	M4411241	
Ni 14-M18-AD4X-H1141		14	18	•	•	4	A	1	500	M4417241	
Ni 20-M30-AD4X-H1141		20	30	•	•	6	A	1	400	M4466141	

* Normally Closed versions available upon request, consult factory.

Material

Connector: Chrome Plated Brass
 Barrel: Chrome Plated Brass
 Sensing Face: PA 12-GF30 Plastic

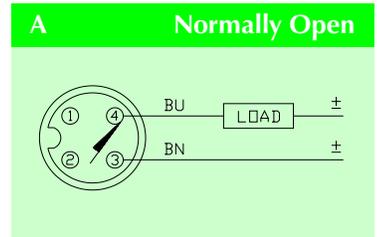
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

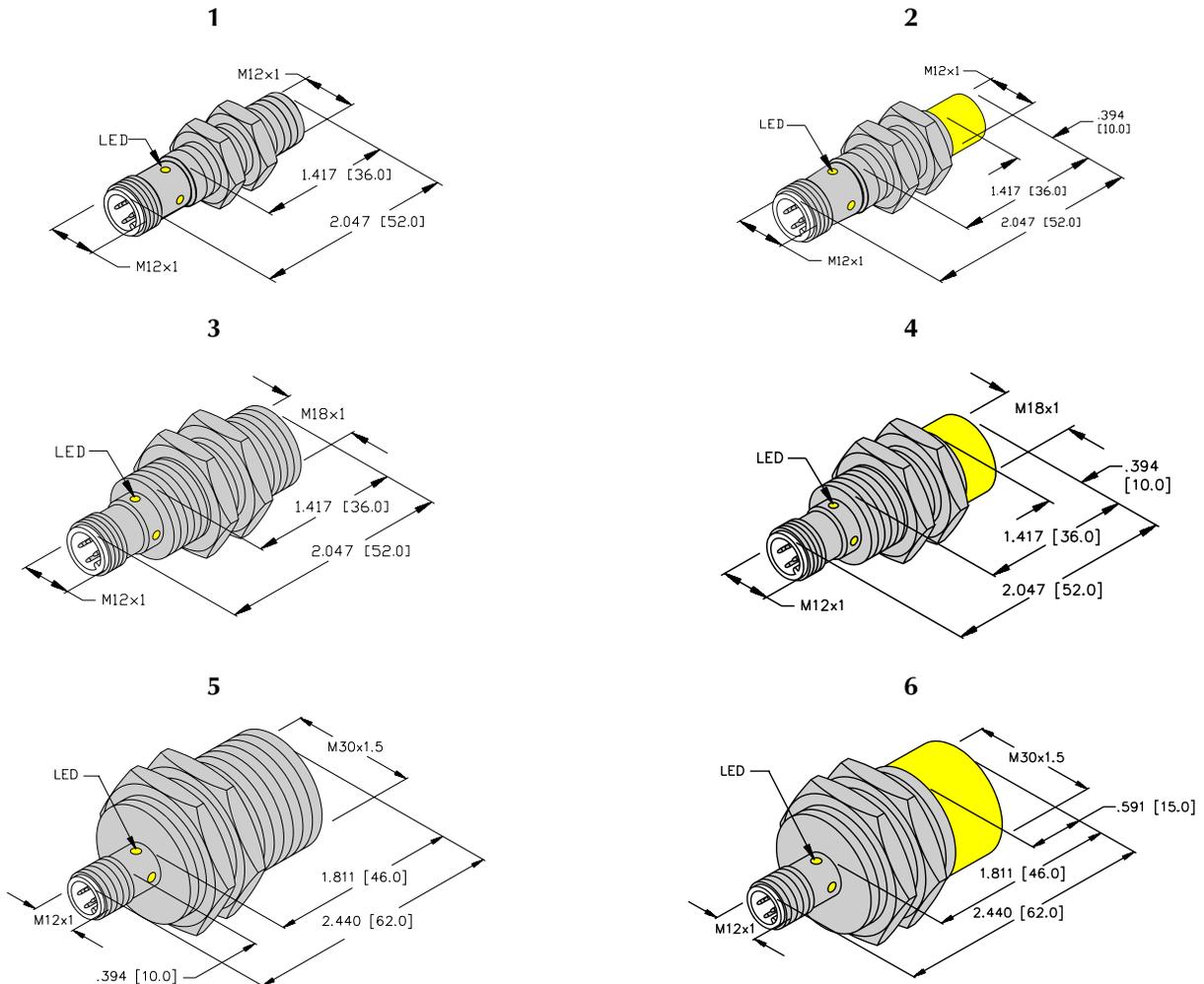
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤5.0 V at 100 mA
Trigger Current for Overload Protection	≥120 mA
Maximum Load Current	≤100 mA
Minimum Load Current	≥3.0 mA
Off-State (Leakage) Current	≤0.8 mA
Time Delay Before Availability	≤10 ms
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagram



Dimensions



TURCK

Extended Range Proximity Sensors

M Barrel



Barrel, Metal with Potted-In Cable Partial Threading

2-Wire DC 
 10-65 VDC, Short-Circuit and Overload Protected
 Normally Open*

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Sinking	Sourcing	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number
Bi 3-M12-AD4X	•	3	12	•	•	1	A	1	1000	M4405035
Bi 7-M18-AD4X	•	7	18	•	•	3	A	1	500	M4414535
Bi 12-M30-AD4X	•	12	30	•	•	5	A	1	400	M4417035
Ni 8-M12-AD4X		8	12	•	•	2	A	1	1000	M4411235
Ni 14-M18-AD4X		14	18	•	•	4	A	1	500	M4417235
Ni 20-M30-AD4X		20	30	•	•	6	A	1	400	M4466135

* Normally Closed versions available upon request, consult factory.

Cable/Conductor

Cable: PVC Jacket; 2 meter standard length
 Copper Conductor: 21 AWG
 (PVC insulated)

Material

Barrel: Chrome Plated Brass
 Sensing Face: PA 12-GF30 Plastic
 End Cap: PUR Plastic

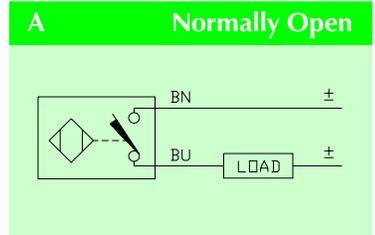
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

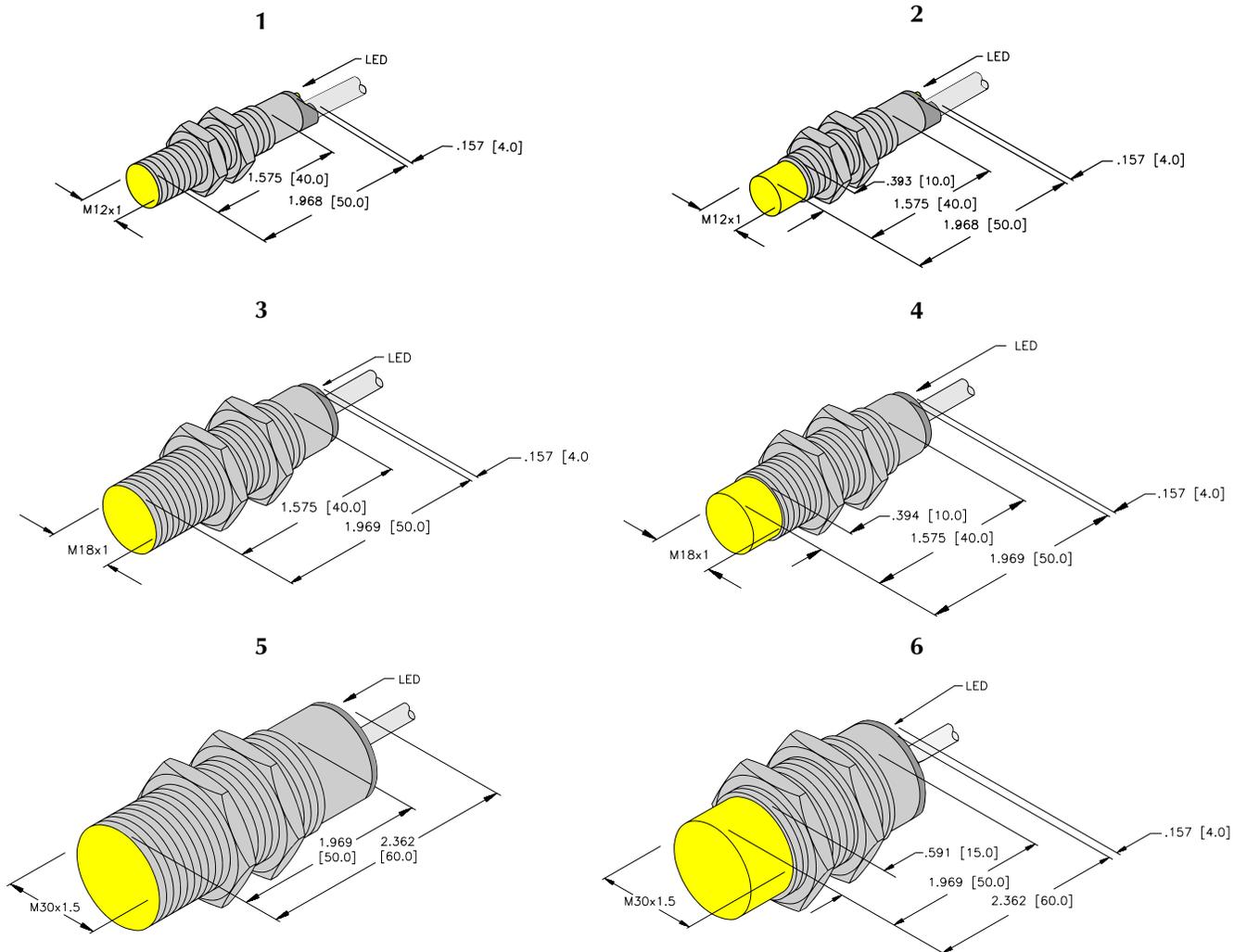
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤5.0 V at 100 mA
Trigger Current for Overload Protection	≥120 mA
Maximum Load Current	≤100 mA
Minimum Load Current	≥3.0 mA
Off-State (Leakage) Current	≤0.8 mA
Time Delay Before Availability	≤10 ms
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized

Wiring Diagram



Dimensions



TURCK

Extended Range Proximity Sensors

H and EH Barrel



Barrel, Metal, Miniature with Quick Disconnect Smooth *picoprox*

3-Wire DC  **picofast**[®]
 10-30 VDC, Short-Circuit and Overload Protected
 Normally Open*, NPN (Sinking) or PNP (Sourcing)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	NPN (Sinking)	PNP (Sourcing)	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 2-EH6.5-AN6X-V1131 Ni 3-EH6.5-AN6X-V1131	•	2.0 3.0	6.5 6.5	• •		1 2	A A	1 1	3000 3000	S4612320 S4612520	 picofast Mating Cordsets PKG 3Z-2 (2 meter) For other styles see "Cordsets" catalog.
Bi 2-EH6.5-AP6X-V1131 Ni 3-EH6.5-AP6X-V1131	•	2.0 3.0	6.5 6.5		• •	1 2	B B	1 1	3000 3000	S4612220 S4612420	
Bi 2-EH6.5K-AN6X-V1131 Ni 3-EH6.5K-AN6X-V1131	•	2.0 3.0	6.5 6.5	• •		3 4	A A	1 1	3000 3000	S4610120 S4610320	
Bi 2-EH6.5K-AP6X-V1131 Ni 3-EH6.5K-AP6X-V1131	•	2.0 3.0	6.5 6.5		• •	3 4	B B	1 1	3000 3000	S4610020 S4610220	

* Normally Closed versions available upon request, consult factory.

Material

Connector: Chrome Plated Brass
 Barrels: Stainless Steel
 Plastic Sensing Face: PA 12-GF30

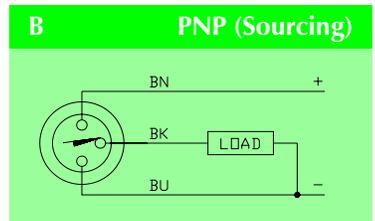
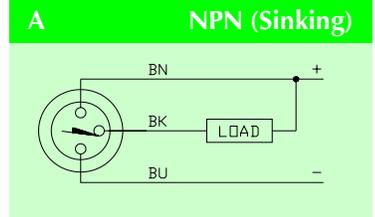
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

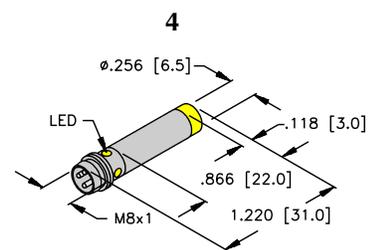
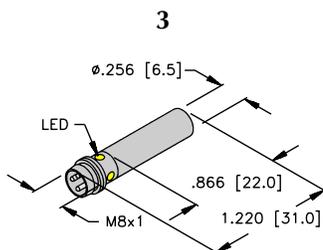
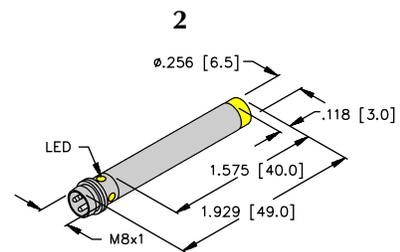
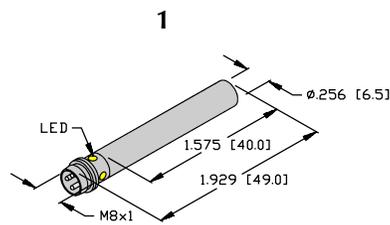
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	1-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 150 mA
Trigger Current for Overload Protection	≥170 mA
Continuous Load Current	≤150 mA
Off-State (Leakage) Current	<100 μA
No-Load Current	≤10 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



Dimensions



TURCK Extended Range Proximity Sensors

EG Barrel



Barrel, Metal, Miniature with Quick Disconnect Full Threading *picoprox*

3-Wire DC  **picofast**[®]
10-30 VDC, Short-Circuit and Overload Protected
Normally Open*, NPN (Sinking) or PNP (Sourcing)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	NPN (Sinking)	PNP (Sourcing)	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 2-EG08-AN6X-V1131 Ni 3-EG08-AN6X-V1131	•	2.0 3.0	8.0 8.0	• •		1 2	A A	1 1	3000 3000	S4602150 S4602850	 picofast Mating Cordsets PKG 3Z-2 (2 meter) For other styles see "Cordsets" catalog
Bi 2-EG08-AP6X-V1131 Ni 3-EG08-AP6X-V1131	•	2.0 3.0	8.0 8.0		• •	1 2	B B	1 1	3000 3000	S4602050 S4602750	
Bi 2-EG08K-AN6X-V1131 Ni 3-EG08K-AN6X-V1131	•	2.0 3.0	8.0 8.0	• •		3 4	A A	1 1	3000 3000	S4669550 S4669750	
Bi 2-EG08K-AP6X-V1131 Ni 3-EG08K-AP6X-V1131	•	2.0 3.0	8.0 8.0		• •	3 4	B B	1 1	3000 3000	S4669450 S4669650	

* Normally Closed versions available upon request, consult factory.

Locknut Torque

M5x0.5 Barrel	5.0 Nm
M8x1 Barrel	10.0 Nm

Material

Connector:	Chrome Plated Brass
Barrel:	Stainless Steel
Locknuts/Lockwashers:	Stainless Steel
Plastic Sensing Face:	PA 12-GF30

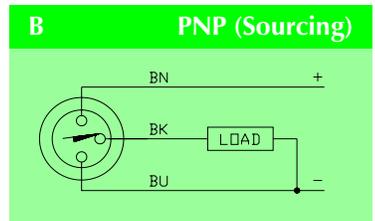
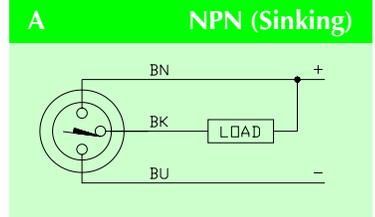
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

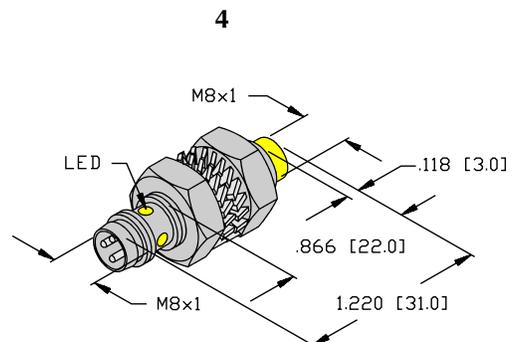
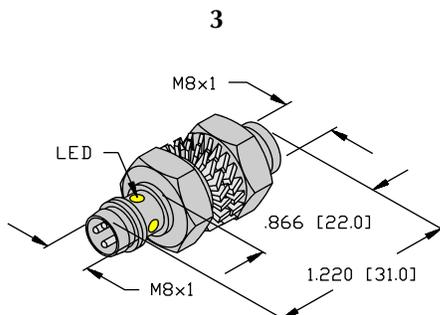
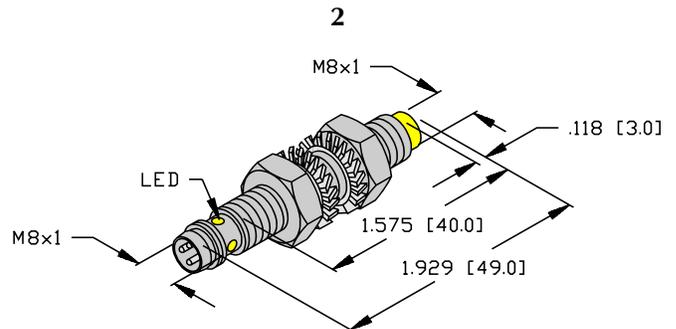
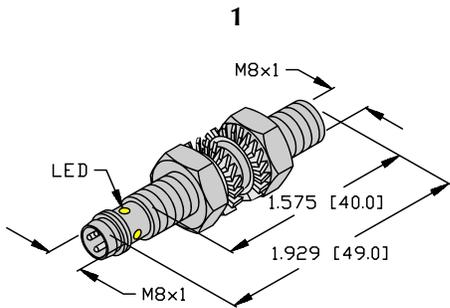
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	1-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 150 mA
Trigger Current for Overload Protection	≥170 mA
Continuous Load Current	≤150 mA
Off-State (Leakage) Current	<100 μA
No-Load Current	≤10 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



Dimensions



TURCK Extended Range Proximity Sensors

G and EG Barrel



Barrel, Metal, Miniature with Quick Disconnect Full Threading *picoprox*[®]

3-Wire DC  **eurofast**[®]
10-30 VDC, Short-Circuit and Overload Protected
Normally Open*, NPN (Sinking) or PNP (Sourcing)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	NPN (Sinking)	PNP (Sourcing)	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 2-EG08-AN6X-H1341 Ni 3-EG08-AN6X-H1341	•	2.0 3.0	8.0 8.0	• •		1 2	A A	1 1	3000 3000	S4602160 S4602860	 Mating Cordsets PKG 3Z-2 (2 meter) For other styles see "Cordsets" catalog
Bi 2-EG08-AP6X-H1341 Ni 3-EG08-AP6X-H1341	•	2.0 3.0	8.0 8.0		• •	1 2	B B	1 1	3000 3000	S4602060 S4602760	
Bi 2-EG08K-AN6X-H1341 Ni 3-EG08K-AN6X-H1341	•	2.0 3.0	8.0 8.0	• •		3 4	A A	1 1	3000 3000	S4669560 S4669760	
Bi 2-EG08K-AP6X-H1341 Ni 3-EG08K-AP6X-H1341	•	2.0 3.0	8.0 8.0		• •	3 4	B B	1 1	3000 3000	S4669460 S4669660	
Bi 2-G08-AN6X-H1341 Ni 3-G08-AN6X-H1341	•	2.0 3.0	8.0 8.0	• •		5 6	A A	1 1	3000 3000	S4602600	
Bi 2-G08-AP6X-H1341 Ni 3-G08-AP6X-H1341	•	2.0 3.0	8.0 8.0		• •	5 6	B B	1 1	3000 3000	S4602500 S4602705	

* Normally Closed versions available upon request, consult factory.

Locknut Torque

M8x1 Barrel 10.0 Nm

Material

Connector: Chrome Plated Brass
Barrel: Stainless Steel
Locknuts/Lockwashers: Stainless Steel
Plastic Sensing Face: PA 12-GF30

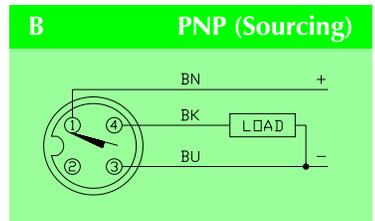
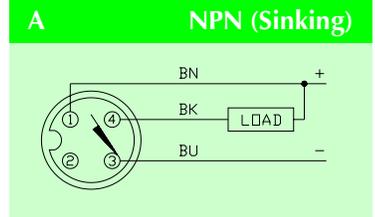
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

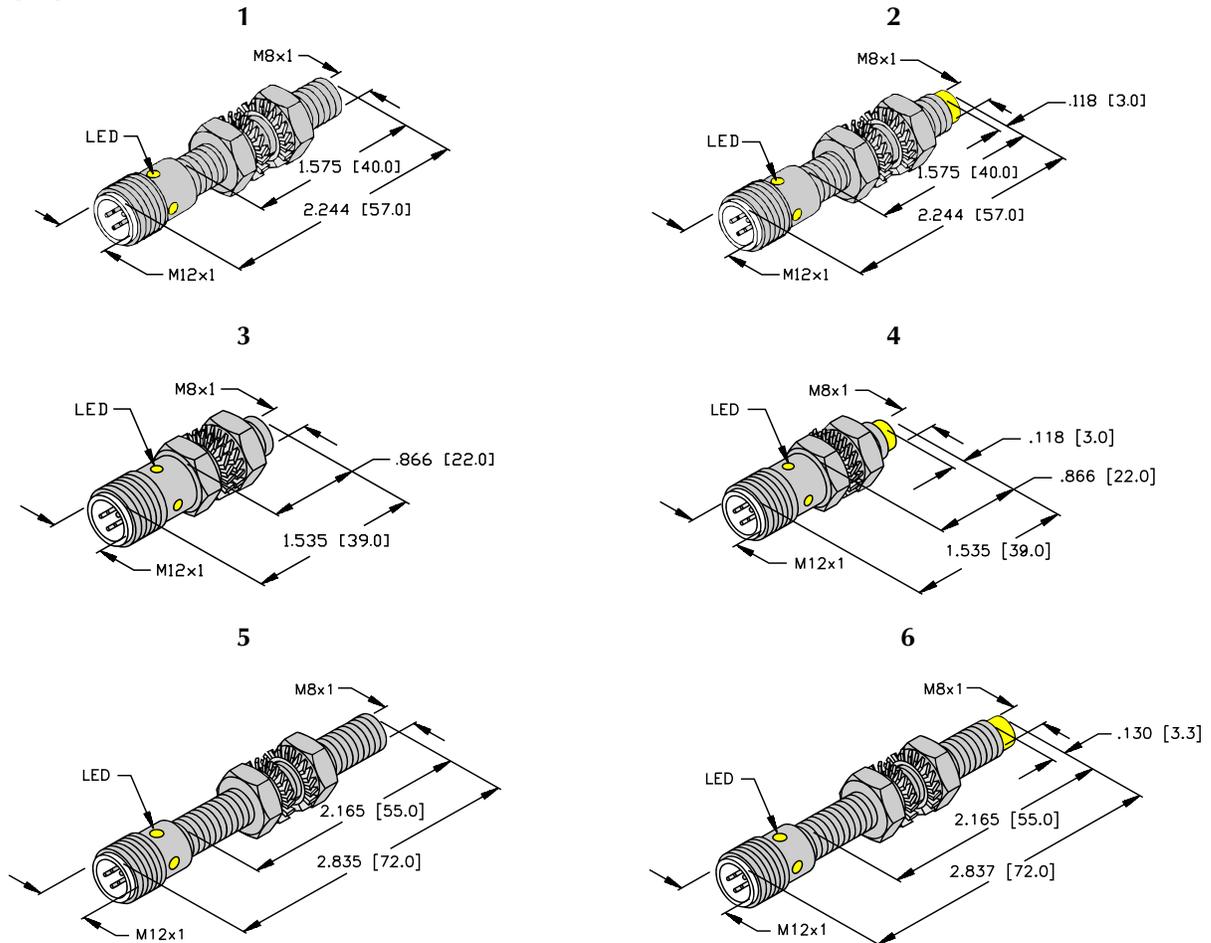
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	1-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 150 mA
Trigger Current for Overload Protection	≥170 mA
Continuous Load Current	≤150 mA
Off-State (Leakage) Current	<100 μA
No-Load Current	≤10 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



Dimensions



M Barrel



Barrel, Metal with Quick Disconnect
Partial Threading

3-Wire DC  **eurofast**[®]
10-30 VDC, Short-Circuit and Overload Protected
Normally Open*, NPN (Sinking) or PNP (Sourcing)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Barrel Material	NPN (Sinking)	PNP (Sourcing)	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 4-M12-AN6X-H1141	•	4	12	CPB	•		1	A	1	2000	T4607100	 eurofast Mating Cordsets RK 4T-2 (2 meter) For other styles see "Cordsets" catalog
Bi 8-M18-AN6X-H1141	•	8	18	SS	•		3	A	1	500	T4615100	
Bi15-M30-AN6X-H1141	•	15	30	SS	•		5	A	1	500	T4618600	
Ni 8-M12-AN6X-H1141 ★		8	12	CPB	•		2	A	1	2000	M4611315	
Ni14-M18-AN6X-H1141 ★		14	18	CPB	•		4	A	1	400	M4611410	
Ni20-M30-AN6X-H1141 ★		20	30	CPB	•		6	A	1	500	M4670515	
Bi 4-M12-AP6X-H1141	•	4	12	CPB		•	1	B	1	2000	T4607000	
Bi 8-M18-AP6X-H1141	•	8	18	SS		•	3	B	1	500	T4615000	
Bi15-M30-AP6X-H1141	•	15	30	SS		•	5	B	1	500	T4618500	
Ni 8-M12-AP6X-H1141 ★		8	12	CPB		•	2	B	1	2000	M4611310	
Ni14-M18-AP6X-H1141 ★		14	18	CPB		•	4	B	1	400	M4611400	
Ni20-M30-AP6X-H1141 ★		20	30	CPB		•	6	B	1	500	M4670500	

* Normally Closed versions available upon request, consult factory.

Material

Barrel/Locknuts: CPB = Chrome Plated Brass
SS = Stainless Steel
Plastic Sensing Face: PA 12-GF30

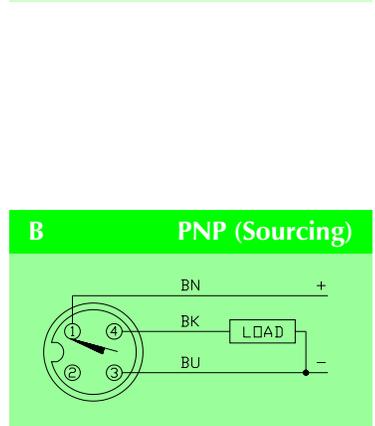
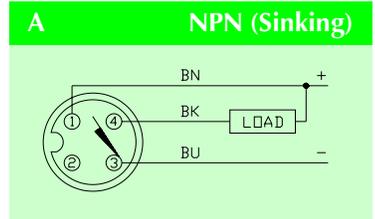
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

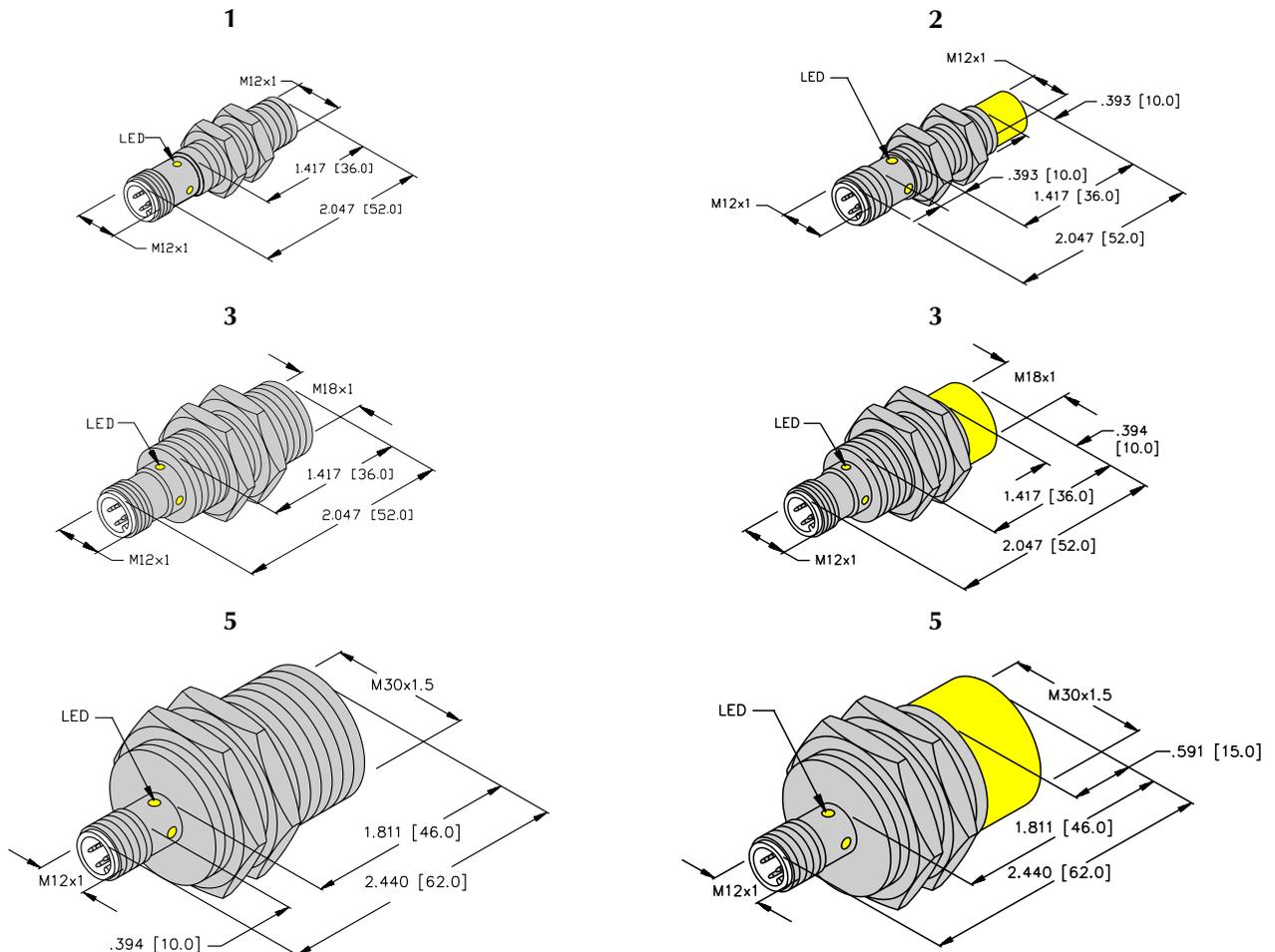
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	5.5-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



Dimensions



M..E Barrel



Barrel, Metal with Quick Disconnect
Partial Threading, Extended Barrel Length

3-Wire DC  **eurofast**[®]
 10-30 VDC, Short-Circuit and Overload Protected
 Normally Open*, NPN (Sinking) or PNP (Sourcing)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Barrel Material	NPN (Sinking)	PNP (Sourcing)	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 4-M12E-AN6X-H1141	•	4	12	CPB	•	1	A	1	2000	T4607193	 Mating Cordsets RK 4T-2 (2 meter) For other styles see "Cordsets" catalog	
Bi 8-M18E-AN6X-H1141	•	8	18	SS	•	2	A	1	500	T4615190		
Bi 15-M30E-AN6X-H1141	•	15	30	SS	•	3	A	1	500	T4618690		
Bi 4-M12E-AP6X-H1141	•	4	12	CPB	•	1	B	1	2000	T4608030		
Bi 8-M18E-AP6X-H1141	•	8	18	SS	•	2	B	1	500	T4615090		
Bi 15-M30E-AP6X-H1141	•	15	30	SS	•	3	B	1	500	T4618590		

* Normally Closed Versions Available Upon Request, Consult Factory.

Material

Barrel/Locknuts: CPB = Chrome Plated Brass
 SS = Stainless Steel
 Plastic Sensing Face: PA 12-GF30

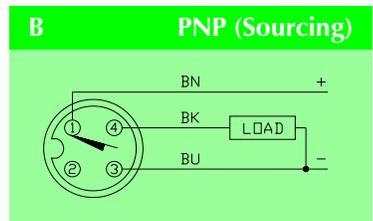
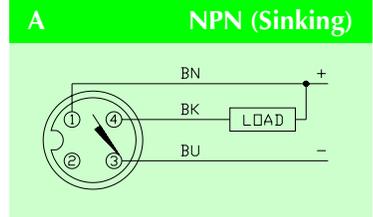
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

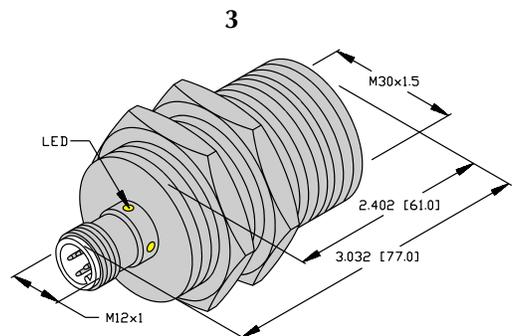
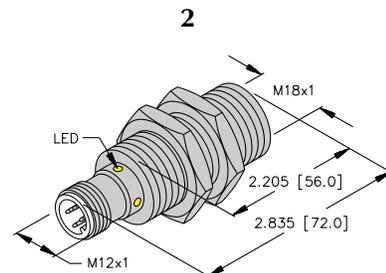
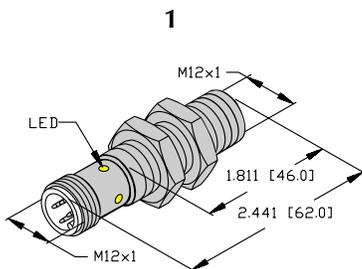
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	5.5-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



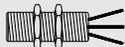
Dimensions



M Barrel



Barrel, Metal with Potted-In Cable
Full Threading

3-Wire DC 
10-30 VDC, Short-Circuit and Overload Protected
Normally Open*, NPN (Sinking) or PNP (Sourcing)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Barrel Material	Sinking	Sourcing	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number
Bi 4-M12-AN6X	•	4	12	CPB	•		1	A	1	2000	T4607130
Bi 8-M18-AN6X	•	8	18	SS	•		3	A	1	500	T4615130
Bi15-M30-AN6X	•	15	30	SS	•		5	A	1	500	T4618620
Ni 8-M12-AN6X ★		8	12	CPB	•		2	A	1	2000	M4611318
Ni14-M18-AN6X ★		14	18	CPB	•		4	A	1	500	M4611411
Ni20-M30-AN6X ★		20	30	CPB	•		6	A	1	500	M4670516
Bi 4-M12-AP6X	•	4	12	CPB		•	1	B	1	2000	T4607006
Bi 8-M18-AP6X	•	8	18	SS		•	3	B	1	500	T4615030
Bi15-M30-AP6X	•	15	30	SS		•	5	B	1	500	T4618530
Ni 8-M12-AP6X ★		8	12	CPB		•	2	B	1	2000	M4611319
Ni14-M18-AP6X ★		14	18	CPB		•	4	B	1	500	M4611401
Ni20-M30-AP6X ★		20	30	CPB		•	6	B	1	500	M4670511

* Normally Closed versions available upon request, consult factory.

Cable/Conductor

Cable: PVC Jacket; 2 and 7 meter standard length
Copper Conductor: M12: 24 AWG
(PVC insulated) M18/M30: 21AWG

Material

Barrel/Locknuts: CPB = Chrome Plated Brass
SS = Stainless Steel
Sensing Face: PA 12-GF30 Plastic
End Cap: PUR Plastic

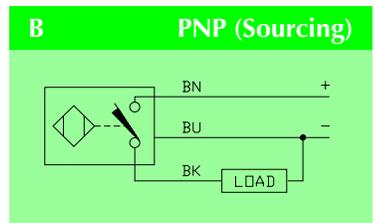
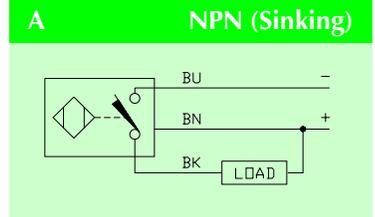
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

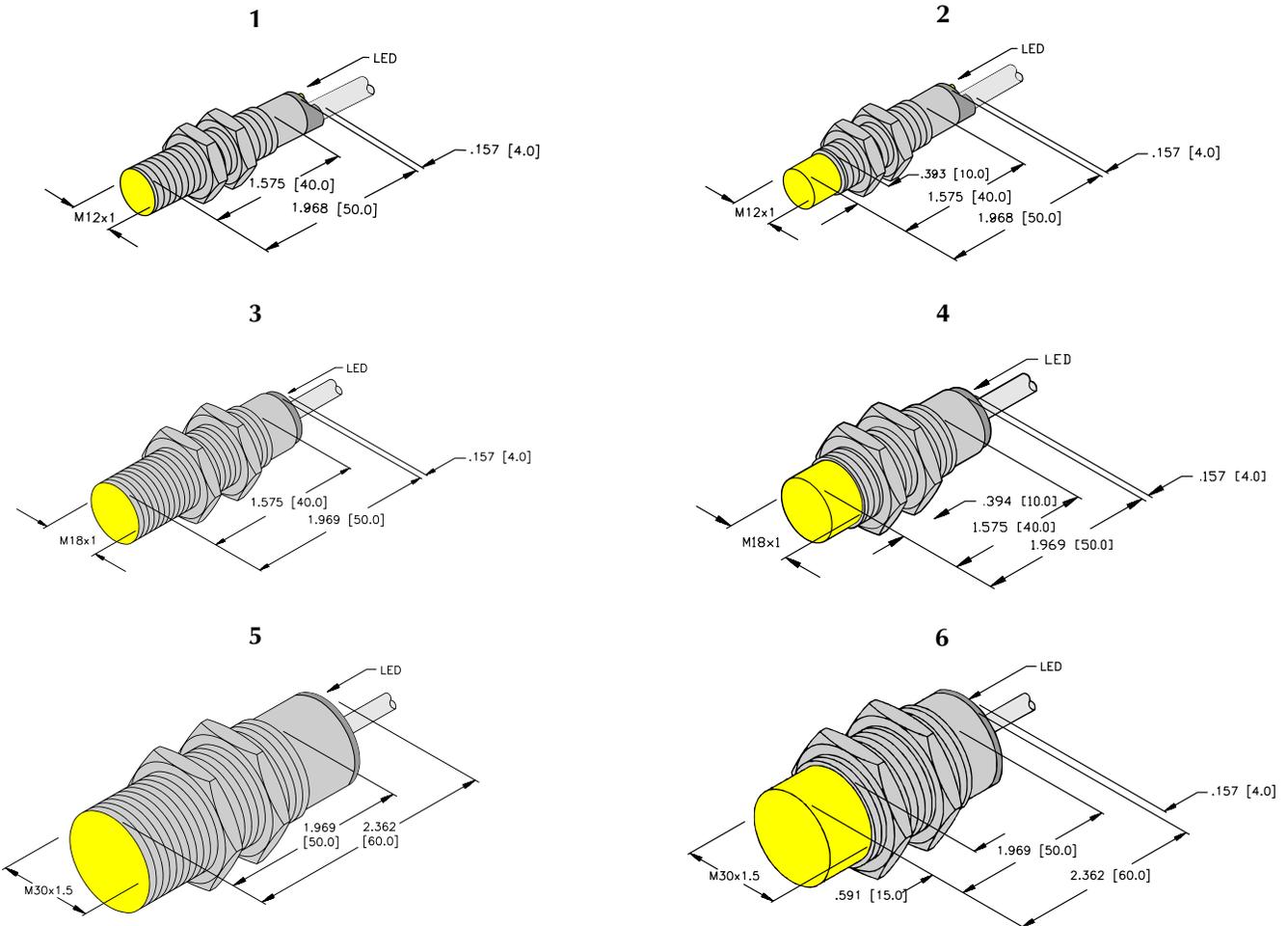
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	5.5-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized

Wiring Diagrams



Dimensions



TURCK

Extended Range Proximity Sensors

M Barrel



Barrel, Metal with Quick Disconnect Partial Threading

4-Wire DC  **eurofast**[®]
 10-30 VDC, Short-Circuit and Overload Protected
 Complementary Outputs: One N.O., One N.C. (SPDT)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Sinking	Sourcing	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 4-M12-VN6X-H1141 Ni 8-M12-VN6X-H1141	•	4 8	12 12	• •		1 2	A A	1 1	2000 2000	T1643200 M4611323	 eurofast Mating Cordsets RK 4.4T-2 (2 meter) For other styles see "Cordsets" catalog
Bi 4-M12-VP6X-H1141 Ni 8-M12-VP6X-H1141	•	4 8	12 12		• •	1 2	B B	1 1	2000 2000	T1633200 M4611324	

Material

Connector: Chrome Plated Brass
 Barrel/Locknuts: Chrome Plated Brass
 Sensing Face: PA 12-GF30 Plastic

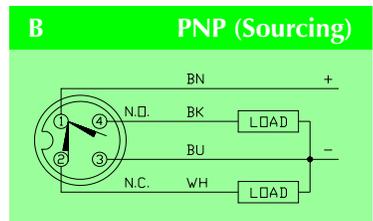
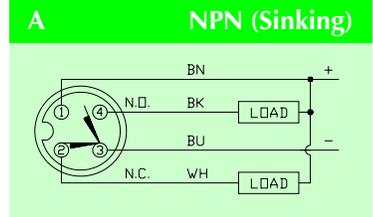
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

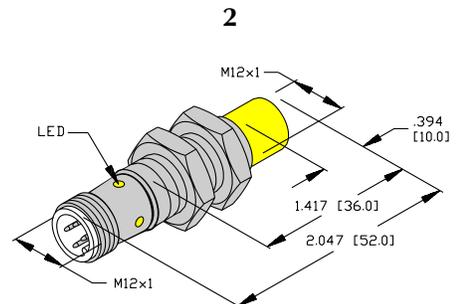
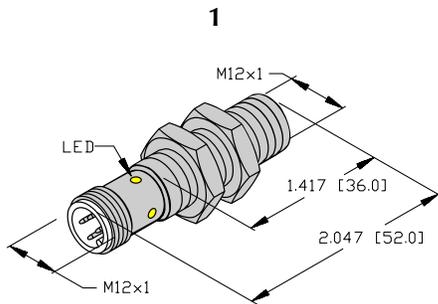
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	5.5-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability.	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



Dimensions



M Barrel



Barrel, Metal with Quick Disconnect
Partial Threading

4-Wire DC  **eurofast**®
 10-65 VDC, Short-Circuit and Overload Protected
 Complementary Outputs: One N.O., One N.C. (SPDT)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	NPN (Sinking)	PNP (Sourcing)	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 8-M18-VN4X-H1141	•	8	18	•	1	A	1	1000	M4590702	 eurofast Mating Cordsets RK 4.4T-2 (2 meter) For other styles see "Cordsets" catalog	
Bi 15-M30-VN4X-H1141	•	15	30	•	3	A	1	500	M4590711		
Ni 14-M18-VN4X-H1141		14	18	•	2	A	1	1000	M4590603		
Ni 20-M30-VN4X-H1141		20	30	•	4	A	1	500	M4590606		
Bi 8-M18-VP4X-H1141	•	8	18	•	1	B	1	1000	M4590701		
Bi 15-M30-VP4X-H1141	•	15	30	•	3	B	1	500	M4590710		
Ni 14-M18-VP4X-H1141		14	18	•	2	B	1	1000	M4590602		
Ni 20-M30-VP4X-H1141		20	30	•	4	B	1	500	M4590607		

Material

Connector: Chrome Plated Brass
 Barrel/ Locknuts: Stainless Steel
 Sensing Face: PA 12-GF30 Plastic

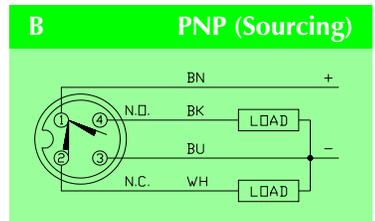
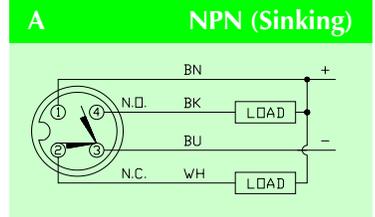
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

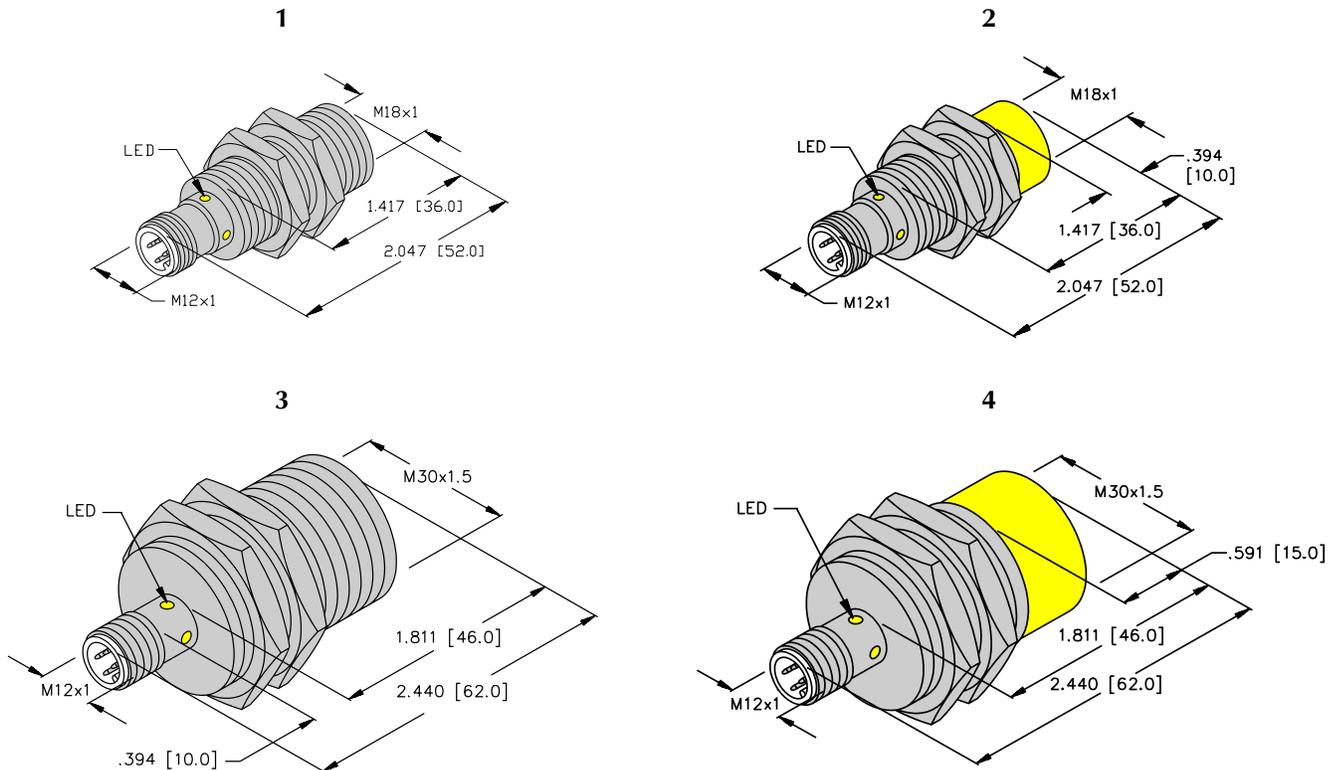
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	4.0-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized (LED Visible Through Four Windows)

Wiring Diagrams



Dimensions



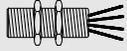
TURCK

Extended Range Proximity Sensors

M Barrel



Barrel, Metal with Potted-In Cable Partial Threading

4-Wire DC 
 10-30 VDC, Short-Circuit and Overload Protected
 Complementary Outputs: One N.O., One N.C. (SPDT)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Sinking	Sourcing	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number
Bi 4-M12-VN6X Ni 8-M12-VN6X	•	4 8	12 12	• •	1 2	A A	1 1	2000 2000	T1643300 M4611321	
Bi 4-M12-VP6X Ni 8-M12-VP6X	•	4 8	12 12	• •	1 2	B B	1 1	2000 2000	T1633300 M4611322	

Cable/Conductor

Cable: PVC Jacket; 2 meter standard length
 Copper Conductor: 22 AWG
 (PVC insulated)

Material

Barrel/Locknuts: Chrome Plated Brass
 Sensing Face: PA 12-GF30 Plastic
 End Cap: PUR Plastic

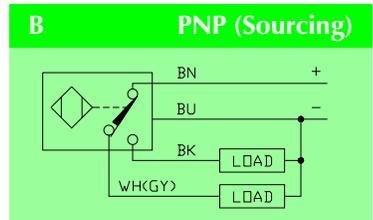
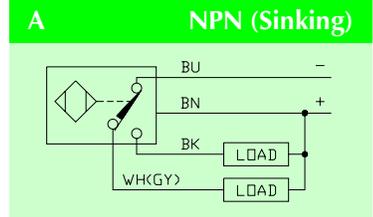
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

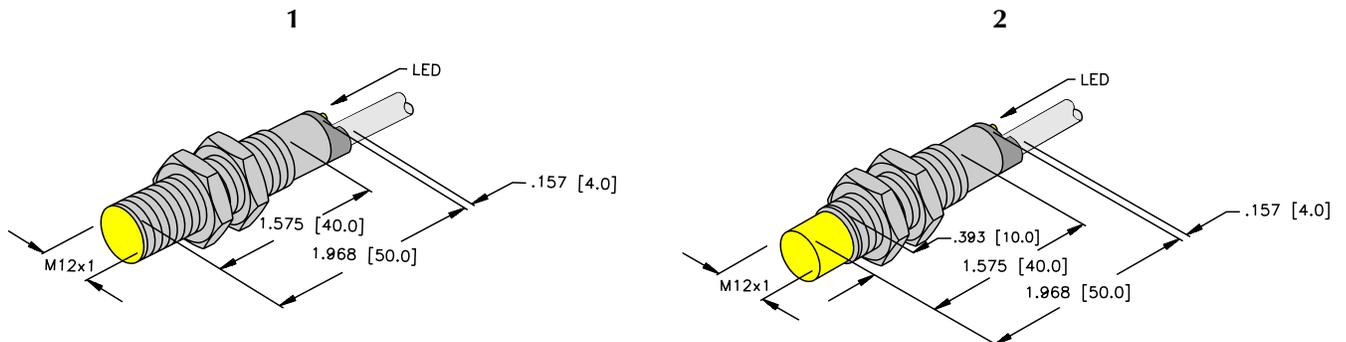
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	5.5-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized

Wiring Diagrams



Dimensions



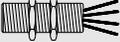
TURCK

Extended Range Proximity Sensors

M Barrel



Barrel, Metal with Potted-In Cable Partial Threading

4-Wire DC 
 10-65 VDC, Short-Circuit and Overload Protected
 Complementary Outputs: One N.O., One N.C. (SPDT)

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Extended Range	Barrel Diameter (mm)	Sinking	Sourcing	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number
Bi 8-M18-VN4X	•	8	•	18	•		1	A	1	1000	M4590703
Bi 15-M30-VN4X	•	15	•	30	•		3	A	1	500	M4570712
Ni 14-M18-VN4X		14	•	18	•		2	A	1	1000	M4590600
Ni 20-M30-VN4X		20	•	30	•		4	A	1	500	M4590604
Bi 8-M18-VP4X	•	8	•	18		•	1	B	1	1000	M4590704
Bi 15-M30-VP4X	•	15	•	30		•	3	B	1	500	M4570713
Ni 14-M18-VP4X		14	•	18		•	2	B	1	1000	M4590601
Ni 20-M30-VP4X		20	•	30		•	4	B	1	500	M4590605

Cable/Conductor

Cable: PVC Jacket; 2 meter standard length
 Copper Conductor: 22 AWG
 (PVC insulated)

Material

Barrel/Locknuts: Stainless Steel
 Sensing Face: PA 12-GF30 Plastic
 End Cap: PUR Plastic

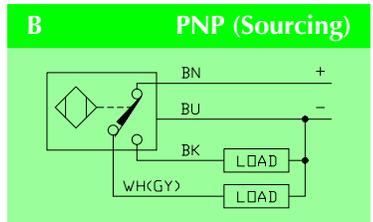
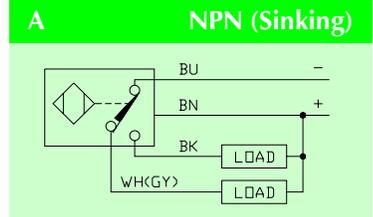
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

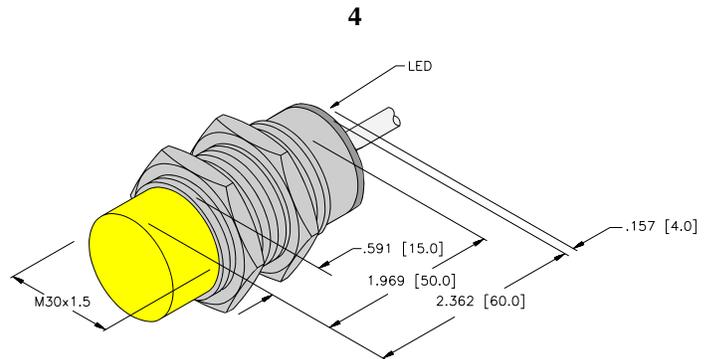
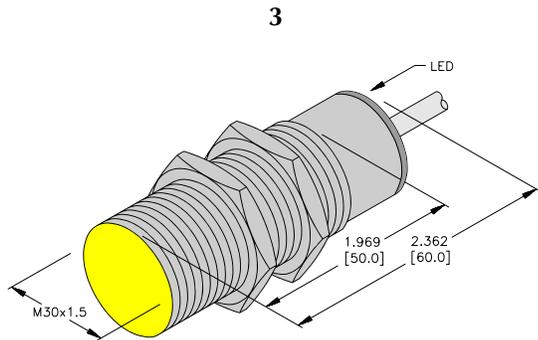
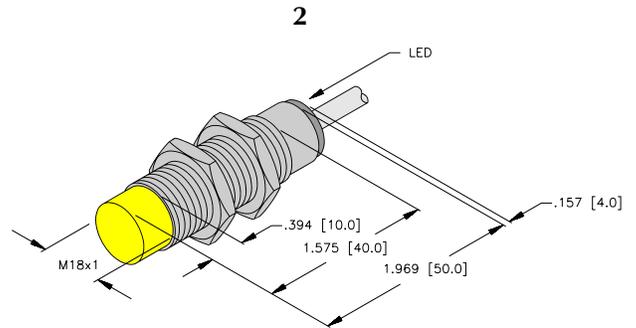
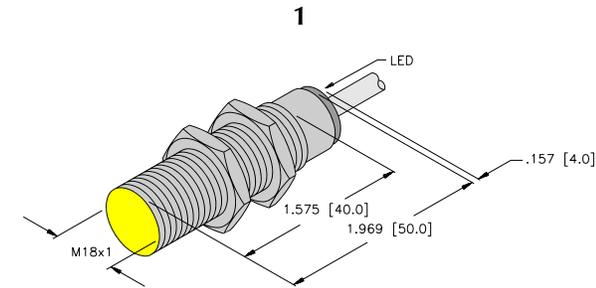
Specifications

Ripple	≤10%
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤1.8 V at 200 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤200 mA
Off-State (Leakage) Current	<10 μA
No-Load Current	4.0-9.5 mA
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
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On	Output Energized

Wiring Diagrams



Dimensions



NEW

G Barrel



Barrel, Metal with Quick Disconnect
Full Threading

2-Wire AC/DC  **microfast**[®]
 20-250 VAC, 10-300 VDC; Short-Circuit and Overload Protected
 Normally Open

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Normally Open	Normally Closed	Drawing #	Wiring Diagram	# of LEDs	Weld Field Immune (I ² t)	Switching Frequency (Hz)	ID Number	Connection
Bi 4-G12-ADZ32X-B3131	•	4	12	•		1	A	1		60	T4205031	 microfast Mating Cordsets KB 3T-2 (2 meter) For other styles see "Cordsets" catalog
Ni 8-G12-ADZ32X-B3131		8	12	•		2	A	1		60	M4205401	

Material

Connector: Chrome Plated Brass
 Barrel/Locknuts: Chrome Plated Brass
 Sensing Face: PA 12-GF30 Plastic

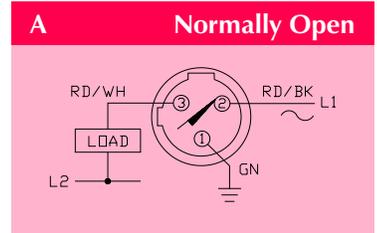
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

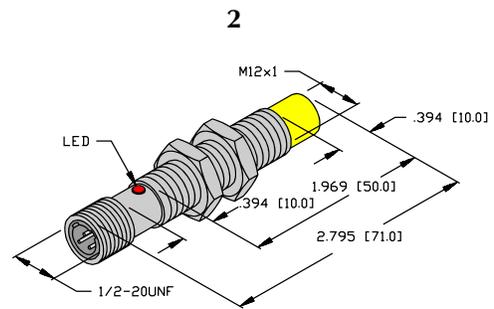
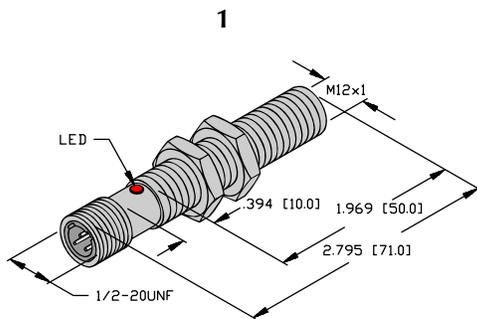
Specifications

Line Frequency	40-60 Hz
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤6.0 V at 100 mA
Trigger Current for Overload Protection	≥220 mA
Continuous Load Current	≤100 mA
Off-State (Leakage) Current	≤1.7 mA
Minimum Load Current	≥3.0 mA
Inrush Current	≤1.0 A (≤30 ms, 15% Duty Cycle)
Time Delay Before Availability	≤60 ms
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability.	≤2% of Rated Operating Distance
LED On	Output Energized
LED Flashing.	Short-Circuit Warning

Wiring Diagram



Dimensions



NEW

G Barrel



Barrel, Metal with Quick Disconnect
Full Threading

2-Wire AC/DC  **microfast**[®]
 20-250 VAC, 10-300 VDC; Short-Circuit/Overload Protected
 Normally Open

NRTL/C

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Barrel Diameter (mm)	Barrel Material	Normally Open	Drawing #	Wiring Diagram	# of LEDs	Switching Frequency (Hz)	ID Number	Connection
Bi 8-G18-ADZ30X2-B3331	•	8	18	SS	•	1	A	2	60	T4209301	 microfast Mating Cordsets KB 3T-2 (2 meter) For other styles see "Cordsets" catalog
Bi 15-G30-ADZ30X2-B3131	•	15	30	SS	•	3	A	2	60	T4207201	
Ni 14-G18-ADZ30X2-B3331		14	18	CPB	•	2	A	2	60	M4205403	
Ni 20-G30-ADZ30X2-B3131		20	30	SS	•	4	A	2	60	M4205406	

Material

Connector: Chrome Plated Brass
 Barrel/Locknuts: CPB= Chrome Plated Brass
 SS = Stainless Steel
 Sensing Face: PA 12-GF30 Plastic

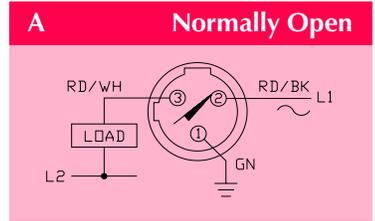
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

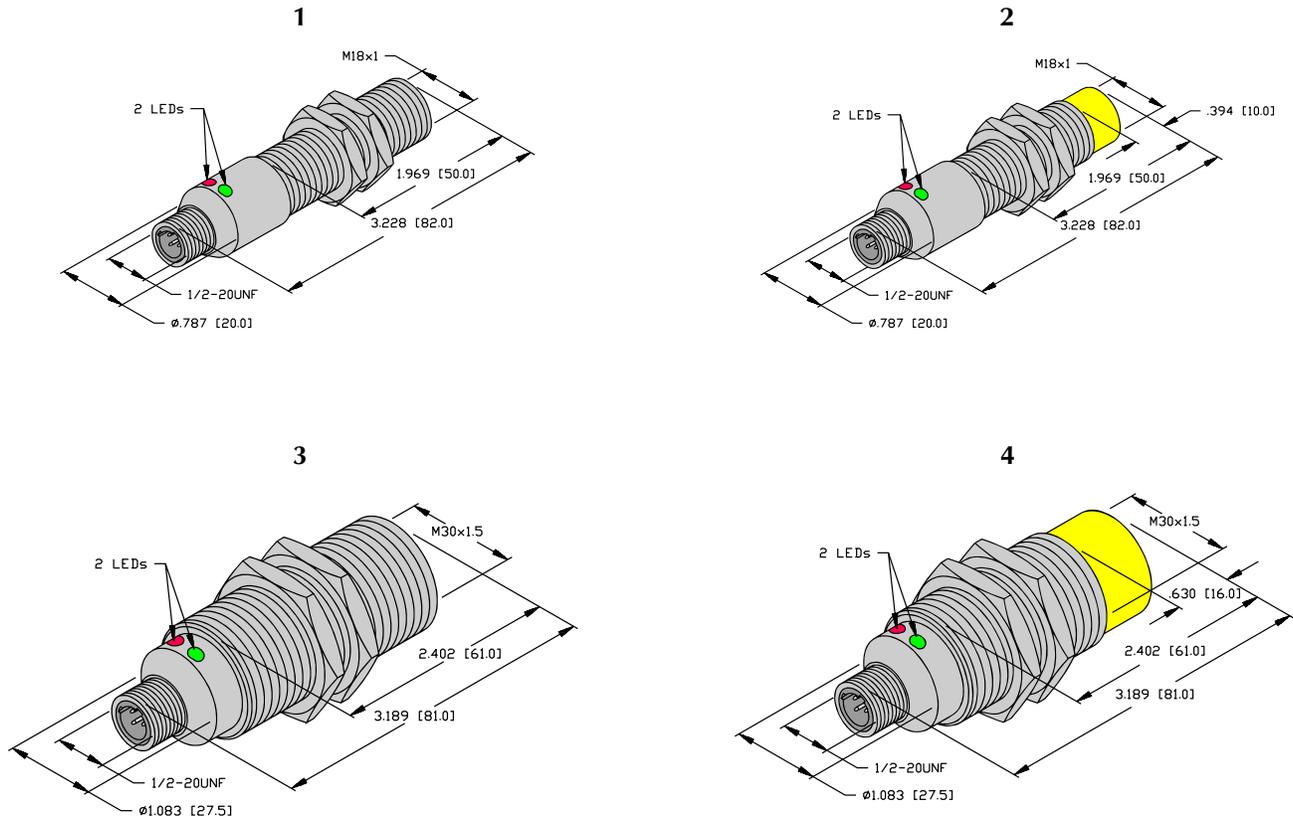
Specifications

Line Frequency	60 Hz
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤6.0 V at 400 mA
Trigger Current for Overload Protection	AC: ≥440 mA; DC: ≥330 mA
Continuous Load Current	AC: ≤400 mA; DC: ≤300 mA
Off-State (Leakage) Current	≤1.7 mA
Minimum Load Current	≥3.0 mA
Inrush Current	4.0 A (≤20 ms, 10% Duty Cycle)
Time Delay Before Availability	≤120 ms
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Operating Temperature	-30°C to +85°C (-22°F to +185°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance
LED On (Red)	Output Energized
LED On (Green)	Power On
LED Flashing (Green)	Short-Circuit Warning

Wiring Diagram



Dimensions



NEW

G Barrel



Barrel, Metal with Quick Disconnect

Full Threading

2-Wire AC/DC  **minifast**®

20-250 VAC, 10-300 VDC

Short-Circuit and Overload Protected; Normally Open

NRTL/C

Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)		Barrel	Normally Open	Normally Closed	Drawing #	Wiring Diagram	# of LEDs	Weld Field Immune (I _{S34})	Switching Frequency (Hz)	ID Number	Connection
Bi15-G30-ADZ30X2-B1131	•	15	30	•		1	A	2		60		T4207202	 minifast Mating Cordsets RKM 30-2M (2 meter) For other styles see "Cordsets" catalog
Ni20-G30-ADZ30X2-B1131		20	30	•		2	A	2		60		M4205405	

Material

Connector: Chrome Plated Brass
 Barrel/Locknuts: Chrome Plated Brass
 Sensing Face: PA 12-GF30 Plastic

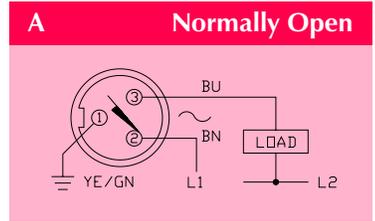
Accessories

Accessories and mounting devices can be found in Sensors catalog (B2000).

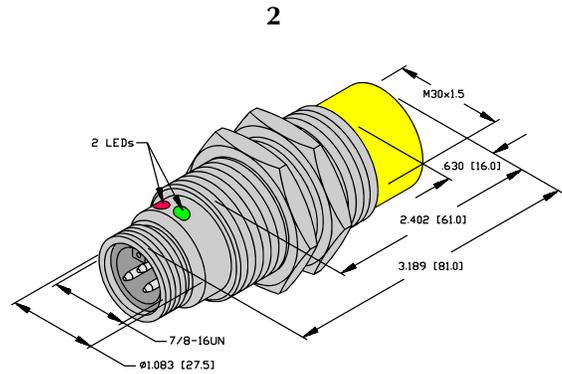
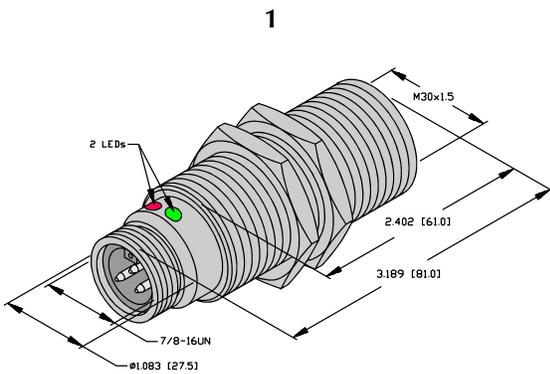
Specifications

Line Frequency	40-60 Hz
Differential Travel (Hysteresis)	3-15% (5% typical)
Voltage Drop Across Conducting Sensor	≤6.0 V at full rated current
Trigger Current for Overload Protection	AC: ≥440 mA; DC: ≥330 mA;
Continuous Load Current	AC: ≤400 mA; DC: ≤300 mA
Off-State (Leakage) Current	≤1.7 mA
Minimum Load Current	≥3.0 mA
Inrush Current	≤4.0 A (≤20 ms, 10% Duty Cycle)
Time Delay Before Availability	≤60 ms
Power-On Effect	Per IEC 947-5-2
Transient Protection	Per EN 60947-5-2
Operating Temperature	-25°C to +70°C (-13°F to +158°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≥2% of Rated Operating Distance
LED Function (Red)	Output Energized
LED On (Green)	Power On
LED Flashing (Green)	Short-Circuit Warning

Wiring Diagram



Dimensions



TURCK

Extended Range Index

TURCK Part Numbers

Bi 2-EG08-AN6X-H1341	9	Bi 8-M18-VN4X	23	Ni 8-M12-AN6X-H1141	11
Bi 2-EG08-AN6X-V1131	7	Bi 8-M18-VN4X-H1141	19	Ni 8-M12-AP6X	15
Bi 2-EG08-AP6X-H1341	9	Bi 8-M18-VP4X	23	Ni 8-M12-AP6X-H1141	11
Bi 2-EG08-AP6X-V1131	7	Bi 8-M18-VP4X-H1141	19	Ni 8-M12-VN6X	21
Bi 2-EG08K-AN6X-H1341	9	Bi12-M30-AD4X	3	Ni 8-M12-VN6X-H1141	17
Bi 2-EG08K-AN6X-V1131	7	Bi12-M30-AD4X-H1141	1	Ni 8-M12-VP6X	21
Bi 2-EG08K-AP6X-H1341	9	Bi15-G30-ADZ30X2-B1131	29	Ni 8-M12-VP6X-H1141	17
Bi 2-EG08K-AP6X-V1131	7	Bi15-G30-ADZ30X2-B3131	27	Ni14-G18-ADZ30X2-B3331	27
Bi 2-EH6.5-AN6X-V1131	5	Bi15-M30-AN6X	15	Ni14-M18-AD4X	3
Bi 2-EH6.5-AP6X-V1131	5	Bi15-M30-AN6X-H1141	11	Ni14-M18-AD4X-H1141	1
Bi 2-EH6.5K-AN6X-V1131	5	Bi15-M30-AP6X	15	Ni14-M18-AN6X	15
Bi 2-EH6.5K-AP6X-V1131	5	Bi15-M30-AP6X-H1141	11	Ni14-M18-AN6X-H1141	11
Bi 2-G08-AN6X-H1341	9	Bi15-M30E-AN6X-H1141	13	Ni14-M18-AP6X	15
Bi 2-G08-AP6X-H1341	9	Bi15-M30E-AP6X-H1141	13	Ni14-M18-AP6X-H1141	11
Bi 3-M12-AD4X	3	Bi15-M30-VN4X	23	Ni14-M18-VN4X	23
Bi 3-M12-AD4X-H1141	1	Bi15-M30-VN4X-H1141	19	Ni14-M18-VN4X-H1141	19
Bi 4-G12-ADZ32X-B3131	25	Bi15-M30-VP4X	23	Ni14-M18-VP4X	23
Bi 4-M12-AN6X	15	Bi15-M30-VP4X-H1141	19	Ni14-M18-VP4X-H1141	19
Bi 4-M12-AN6X-H1141	11	Ni 3-EG08-AN6X-H1341	9	Ni20-G30-ADZ30X2-B1131	29
Bi 4-M12-AP6X	15	Ni 3-EG08-AN6X-V1131	7	Ni20-G30-ADZ30X2-B3131	27
Bi 4-M12-AP6X-H1141	11	Ni 3-EG08-AP6X-H1341	9	Ni20-M30-AD4X	3
Bi 4-M12E-AN6X-H1141	13	Ni 3-EG08-AP6X-V1131	7	Ni20-M30-AD4X-H1141	1
Bi 4-M12E-AP6X-H1141	13	Ni 3-EG08K-AN6X-H1341	9	Ni20-M30-AN6X	15
Bi 4-M12-VN6X	21	Ni 3-EG08K-AN6X-V1131	7	Ni20-M30-AN6X-H1141	11
Bi 4-M12-VN6X-H1141	17	Ni 3-EG08K-AP6X-H1341	9	Ni20-M30-AP6X	15
Bi 4-M12-VP6X	21	Ni 3-EG08K-AP6X-V1131	7	Ni20-M30-AP6X-H1141	11
Bi 4-M12-VP6X-H1141	17	Ni 3-EH6.5-AN6X-V1131	5	Ni20-M30-VN4X	23
Bi 7-M18-AD4X	3	Ni 3-EH6.5-AP6X-V1131	5	Ni20-M30-VN4X-H1141	19
Bi 7-M18-AD4X-H1141	1	Ni 3-EH6.5K-AN6X-V1131	5	Ni20-M30-VP4X	23
Bi 8-G18-ADZ30X2-B3331	27	Ni 3-EH6.5K-AP6X-V1131	5	Ni20-M30-VP4X-H1141	19
Bi 8-M18-AN6X	15	Ni 3-G08-AN6X-H1341	9		
Bi 8-M18-AN6X-H1141	11	Ni 3-G08-AP6X-H1341	9		
Bi 8-M18-AP6X	15	Ni 8-G12-ADZ32X-B3131	25		
Bi 8-M18-AP6X-H1141	11	Ni 8-M12-AD4X	3		
Bi 8-M18E-AN6X-H1141	13	Ni 8-M12-AD4X-H1141	1		
Bi 8-M18E-AP6X-H1141	13	Ni 8-M12-AN6X	15		

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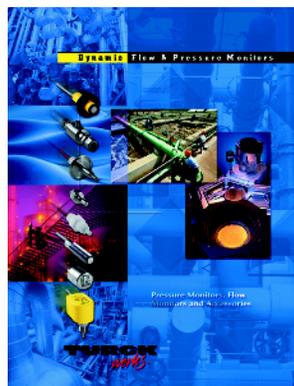
Literature and Media questions or concerns?

Contact Marketing Services at **TURCK USA**: media@turck.com

New Literature from TURCK



Automation Control B0154

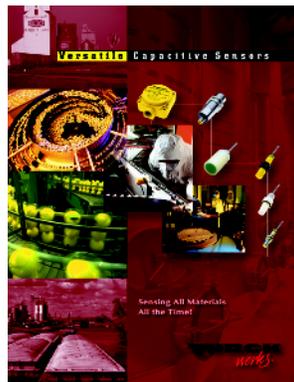


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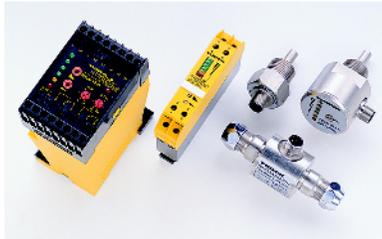


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