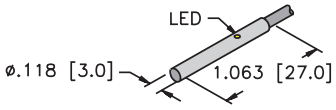
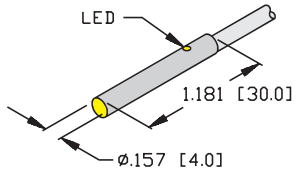
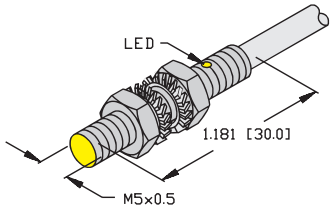
Inductive Sensors





Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
3 mm - Embeddable, Miniature Smooth Barrel, Potted-In Cable 	Bi 1-EH03-AN7X*	M1619323	***TTL Compatible***	1	**3-Wire DC NPN**
	Bi 1-EH03-AP7X*	M1619322	***TTL Compatible***	1	**3-Wire DC PNP**
4 mm - Embeddable, Miniature Smooth Barrel, Potted-In Cable 	Bi 1-EH04-AN6X	S4609640		1	**3-Wire DC NPN**
	Bi 1-EH04-AP6X	S4609540		1	**3-Wire DC PNP**
	Bi 1-EH04-Y1	S1003040		1	**2-Wire DC NAMUR**
5 mm - Embeddable, Miniature Threaded Barrel, Potted-In Cable 	Bi 1-EG05-AN6X	S4609840		1	**3-Wire DC NPN**
	Bi 1-EG05-AP6X	S4609740		1	**3-Wire DC PNP**
	Bi 1-EG05-Y1	S1003240		1	**2-Wire DC NAMUR**

* Flush mountable only in non-ferrous metals.

TURCK mold-on connectors available on all cable sensors. See page A5.



Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/ Cable Mat.	Wiring Diagram #
10-30 VDC	5000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	5000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
10-30 VDC	3000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	3000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
5-30 VDC	5000	Remote	-25 to +70	IP 67	SS	PA 12	TROG	N/A	N/A	2M/PVC	3
10-30 VDC	3000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	3000	≤100	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
5-30 VDC	5000	Remote	-25 to +70	IP 67	SS	PA 12	TROG	N/A	N/A	2M/PVC	3

Wiring Diagrams

Diagram 1

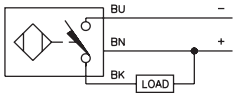


Diagram 2

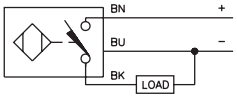
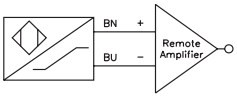
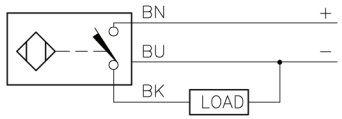


Diagram 3



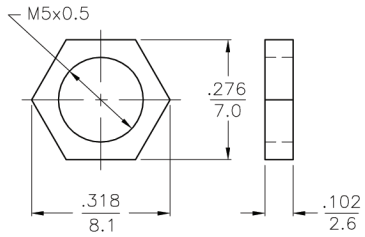
WIRING DIAGRAM



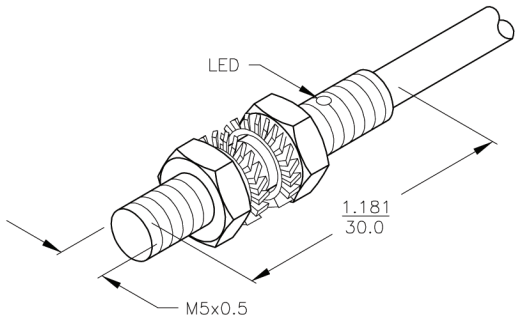
OUTPUT: AP6X

SHORT–CIRCUIT AND OVERLOAD PROTECTION

LOCKNUT LN–SS5



SPECIFICATIONS	
OPERATING VOLTAGE	10–30 VDC
RIPPLE	≤ 10%
DIFFERENTIAL TRAVEL (HYSTERESIS)	3–15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 1.8 V at 150 mA
OUTPUT FUNCTION	NORMALLY OPEN 3–WIRE DC SELF–CONTAINED
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 170 mA
CONTINUOUS LOAD CURRENT	≤ 150 mA
OFF–STATE (LEAKAGE) CURRENT	< 100 uA
NO–LOAD CURRENT	≤ 1.0–9.5 mA
TIME DELAY BEFORE AVAILABILITY	≤ 8 ms
POWER–ON EFFECT PROTECTION	Per IEC 947–5–2
REVERSE POLARITY PROTECTION	INCORPORATED
WIRE–BREAK PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	INCORPORATED
OPERATING TEMPERATURE	–25°C to +70°C (–13°F to +158°F)
ENCLOSURE	MEETS NEMA 1, 3, 4, 6, 13 AND IEC IP67
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	ON: OUTPUT ENERGIZED
RATED OPERATING DISTANCE(Sn)	1.0 mm = .039" (NOMINAL)
SWITCHING FREQUENCY	3000 Hz
REPEATABILITY	≤ 2% of RATED OPERATING DISTANCE
EMBEDABLE (SHIELDED)	YES



NOTE
PRELIMINARY SPECIFICATIONS

REV	DESCRIPTION	BY	DATE	ECO NO.
P1		IK	01/27/00	

RELATED DOCUMENTS
1.
2.
3.
4.

3RD ANGLE PROJECTION

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TURCK INC
High Technology Sensors and Automation Controls

MATERIAL: STAINLESS STEEL

FINISH

TOLERANCES UNLESS OTHERWISE SPECIFIED
.X ±0.02
.XX ±0.01
.XXX ±0.005
ANGLES ±1°
ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY

DRFT: IK | DATE: 01/27/00
DSGN | SCALE: 1=.8

UNIT OF MEASUREMENT
INCH [MILLIMETER]
DO NOT SCALE THIS DRAWING

DESCRIPTION: Bi 1–EG05–AP6X

IDENTIFICATION NO.: S4609740 | REV: P1

FILE: S4609740 | SHEET 1 OF 1