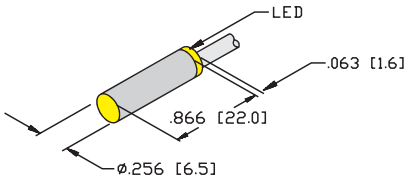
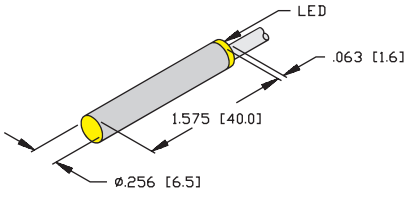
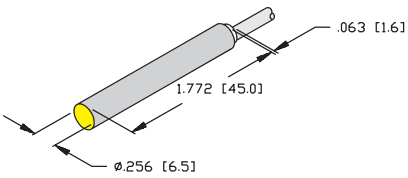
Inductive Sensors

Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
6.5 mm - Embeddable, Miniature Smooth Barrel, Potted-In Cable 	Bi 1.5-EH6.5K-AN6X	S4610640	*Short Barrel*	1.5	**3-Wire DC NPN**
	Bi 2-EH6.5K-AN6X	S4610100	*Short Barrel*	2	
	Bi 1.5-EH6.5K-AP6X	S4610540	*Short Barrel*	1.5	**3-Wire DC PNP**
	Bi 2-EH6.5K-AP6X	S4610000	*Short Barrel*	2	
	Bi 1.5-EH6.5K-Y1	S1004600	*Short Barrel*	1.5	**2-Wire DC NAMUR**
6.5 mm - Embeddable, Miniature Smooth Barrel, Potted-In Cable 	Bi 1.5-EH6.5-AN6X	S4612100		1.5	**3-Wire DC NPN**
	Bi 2-EH6.5-AN6X	S4612300	*Ext. Range*	2	
	Bi 2U-EH6.5-AN6X	S4281170	*Uprox*	2	
	Bi 1.5-EH6.5-AP6X	S4612000		1.5	**3-Wire DC PNP**
	Bi 1.5U-EH6.5-AP6X		*Uprox*	1.5	
	Bi 2-EH6.5-AP6X	S4612200	*Ext. Range*	2	
	Bi 2U-EH6.5-AP6X	S4281150	*Uprox*	2	
	Bi 1.5-EH6.5-AP6X/S100	S4612001	*High Temp. 100°C*	1.5	
	Bi 1.5-H6.5-Y1X	S4004810		1.5	**2-Wire DC NAMUR**
6.5 mm - Embeddable, Miniature Smooth Barrel, Potted-In Cable 	Bi 1.5-H6.5M-AN7	S4708100	*TTL Compatible*	1.5	**3-Wire DC NPN**

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	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	3000	≤150	-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	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1
	1000	≤150	-25 to +70	IP 68	SS	PA 12	TROG	N/A	YE	2M/PUR	1
10-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	2000	≤150	-30 to +85	IP 68	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	1000	≤150	-30 to +85	IP 68	SS	PA 12	TROG	N/A	YE	2M/PUR	2
	3000	Remote	-25 to +100	IP 67	CPB	EPTR	TROG	N/A	YE	2M/PVC	3
5-30 VDC	3000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	3
10-30 VDC	2000	≤150	-25 to +70	IP 67	SS	PA 12	TROG	N/A	YE	2M/PUR	1

Wiring Diagrams

Diagram 1

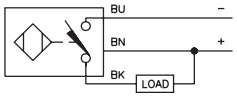


Diagram 2

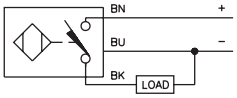
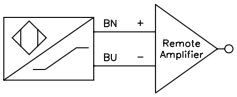
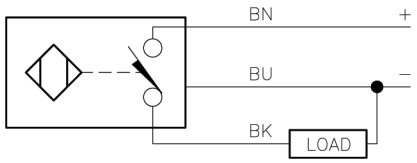


Diagram 3



WIRING DIAGRAM

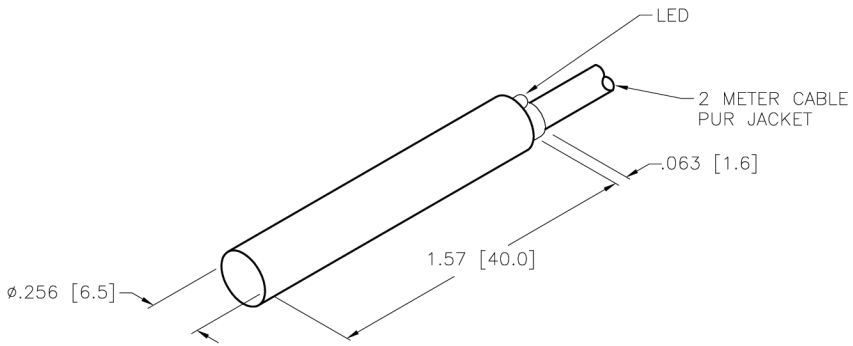


OUTPUT: AP6X

SHORT–CIRCUIT AND OVERLOAD PROTECTED

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
SHORT–CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 170 mA
CONTINUOUS LOAD CURRENT	≤ 150 mA
OFF–STATE (LEAKAGE) CURRENT	<10 µA
NO LOAD CURRENT	1.0–9.5mA
MAXIMUN APPROACH VELOCITY	≤ 1 ms
TIME DELAY BEFORE AVAILABILITY	≤ 8 ms
REVERSE POLARITY PROTECTION	INCORPORATED
WIRE–BREAK PROTECTION	INCORPORATED
POWER–ON EFFECT PROTECTION	Per IEC 947–5–2
PROTECTION AGAINST TRANSIENTS	Per EN 60947–5–2
OPERATING TEMPERATURE	–25°C to +70°C (–13°F to +158°F)
ENCLOSURE	MEETS NEMA 1,3,4,4x,6,13 AND IEC IP 67
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	YELLOW: OUTPUT ENERGIZED
RATED OPERATING DISTANCE(Sn)	1.5 MM = .059" (NOMINAL)
SWITCHING FREQUENCY	3000 Hz
TEMPERATURE DRIFT	≤ 0.1mm
REPEATABILITY	≤ 2% OF NOMINAL SENSING RANGE
EMBEDDABLE (SHIELDED)	YES



SOURCE DRAWING - FOR REFERENCE ONLY

NOTES: 1. MATERIALS:
BARREL – STAINLESS STEEL
SENSING FACE – PA12–GF30 PLASTIC
END CAP – TROGAMID T

REV	DESCRIPTION	BY	DATE	ECO NO.
A	DRAWING RELEASE	JBJ	06/18/02	

RELATED DOCUMENTS
1.
2.
3.
4.

3RD ANGLE PROJECTION

MATERIAL: SEE NOTE 1

FINISH

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

DRFT JBJ | DATE 06/18/02
DSGN | SCALE 1=1.0

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

TURCK INC
High Technology Sensors and Automation Controls

DESCRIPTION: Bi 1.5–EH6.5–AP6X
IDENTIFICATION NO.: S4612000
REV: A
FILE: S4612000
SHEET 1 OF 1