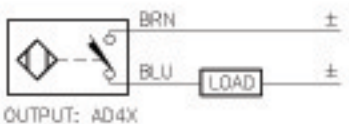
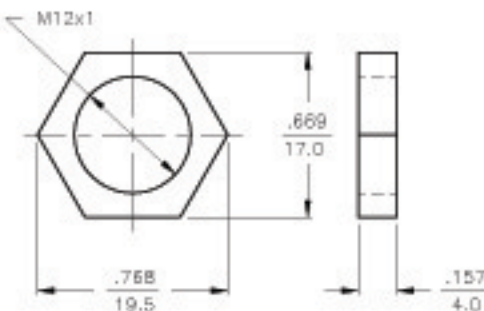


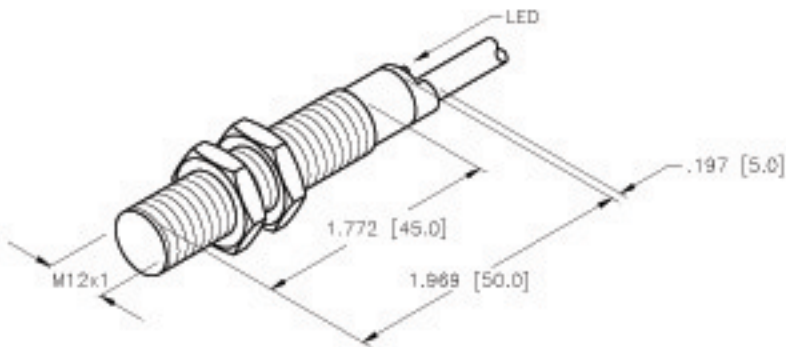
Inductive Sensors



Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
12 mm - Embeddable, Potted-In Cable 	Bi 2-M12-AD4X	T4405000		2	2-Wire DC
	Bi 3-M12-AD4X	T4405035	Ext. Range	3	
	Bi 2-M12-AN6X	T4606695		2	3-Wire DC NPN
	Bi 3U-EM12-AN6X	M1634320	Uprox	3	
	Bi 3U-M12-AN6X	M1634120	Uprox	3	
	Bi 4-M12-AN6X	T4607130	Ext. Range	4	
	Bi 2-M12-AP6X	T4605000		2	3-Wire DC PNP
	Bi 2-M12-AP6X/S100	M4605003	High Temp. 100°C	2	
	Bi 3U-EM12-AP6X	M1634300	Uprox	3	
	Bi 3U-M12-AP6X	M1634100	Uprox	3	
	Bi 4-M12-AP6X	T4607006	Ext. Range	4	
	Bi 2-M12-VN6X	T1640200	Comp. Output	2	4-Wire DC NPN
	Bi 4-M12-VN6X	T1643300	Ext. Range, Comp. Output	4	
	Bi 2-M12-VP6X	T1630200	Comp. Output	2	4-Wire DC PNP
	Bi 4-M12-VP6X	T1633300	Ext. Range, Comp. Output	4	
	Bi 2-EM12-ADZ32X	T4205092		2	2-Wire AC/DC Short-circuit Protected
12 mm - Embeddable, Potted-In Cable, Teflon Coated 	Bi 2U-MT12-ADZ32X	M4205100	Uprox	2	2-Wire AC/DC Short-circuit Protected
12 mm - Embeddable, Potted-In Cable 	Bi 3-EM12WD-AN6X	M1634333	Washdown	3	3-Wire DC NPN
	Bi 2-EM12WD-AP6/S929	M4614515	Low Temp. -60°C	2	3-Wire DC PNP
	Bi 3-EM12WD-AP6X	M1634330	Washdown	3	
	Bi 3-EM12WD-AP6X/S97	M1634336	Low Temp. -40°C	3	

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 #	Wiring Diagrams
10-65 VDC	1000	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	Diagram 1
	1000	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	Diagram 2
	3000	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	2	
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	Diagram 3
	2000	≤200	-25 to +100	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
	3000	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	3	
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	Diagram 4
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	Diagram 5
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	SS	PA 12	EPTR	N/A	YE	2M/PVC	6	Diagram 6
20-250 VAC 10-300 VDC	20	≤100	-25 to +70	IP 67	TC	TC	EPTR	N/A	YE	2M/PVC	6	Diagram 6
10-30 VDC	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	2	
10-30 VDC	1000	≤200	-60 to +60	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3	
	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3	
	2000	≤200	-40 to +70	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3	

WIRING DIAGRAM	LOCKNUT LN-M12	SPECIFICATIONS																																														
 BRN ± BLU ± LOAD OUTPUT: AD4X SHORT-CIRCUIT AND OVERLOAD PROTECTED	 M12x1 .768 19.5 .669 17.0 .157 4.0	<table><tr><td>OPERATING VOLTAGE</td><td>10-65 VDC</td></tr><tr><td>RIPPLE</td><td>≤ 10%</td></tr><tr><td>HYSTERESIS (DIFFERENTIAL TRAVEL)</td><td>3-15% (5% TYPICAL)</td></tr><tr><td>VOLTAGE DROP ACROSS CONDUCTING SENSOR</td><td>≤ 5.0 V at 100 mA</td></tr><tr><td>OUTPUT FUNCTION</td><td>NORMALLY OPEN 2-WIRE DC SELF-CONTAINED</td></tr><tr><td>TTL COMPATIBLE</td><td>NO</td></tr><tr><td>SHORT-CIRCUIT PROTECTED</td><td>YES</td></tr><tr><td>TRIGGER CURRENT FOR OVERLOAD PROTECTION</td><td>≥ 120 mA</td></tr><tr><td>MAXIMUM LOAD CURRENT</td><td>≤ 100 mA</td></tr><tr><td>MINIMUM LOAD CURRENT</td><td>≥ 3.0 mA</td></tr><tr><td>LEAKAGE (OFF-STATE) CURRENT</td><td>≤ 0.8 mA</td></tr><tr><td>TIME DELAY BEFORE AVAILABILITY</td><td>≤ 10 ms</td></tr><tr><td>POWER-ON EFFECT PROTECTION</td><td>INCORPORATED</td></tr><tr><td>PROTECTION AGAINST TRANSIENTS</td><td>PER EN 60947-5-2</td></tr><tr><td>OPERATING TEMPERATURE</td><td>-25°C to +70°C (-13°F to +158°F)</td></tr><tr><td>ENCLOSURE</td><td>MEETS NEMA 1, 3, 4, 6, 13 AND IEC IP67</td></tr><tr><td>SHOCK</td><td>30 g, 11 ms</td></tr><tr><td>VIBRATION</td><td>55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)</td></tr><tr><td>LED FUNCTION</td><td>YELLOW: OUTPUT ENERGIZED</td></tr><tr><td>SENSING RANGE</td><td>2 mm = .079" (NOMINAL)</td></tr><tr><td>SWITCHING FREQUENCY</td><td>1000 Hz</td></tr><tr><td>REPEATABILITY</td><td>≤ 2% of NOMINAL SENSING RANGE</td></tr><tr><td>SHIELDED</td><td>YES</td></tr></table>	OPERATING VOLTAGE	10-65 VDC	RIPPLE	≤ 10%	HYSTERESIS (DIFFERENTIAL TRAVEL)	3-15% (5% TYPICAL)	VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 5.0 V at 100 mA	OUTPUT FUNCTION	NORMALLY OPEN 2-WIRE DC SELF-CONTAINED	TTL COMPATIBLE	NO	SHORT-CIRCUIT PROTECTED	YES	TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 120 mA	MAXIMUM LOAD CURRENT	≤ 100 mA	MINIMUM LOAD CURRENT	≥ 3.0 mA	LEAKAGE (OFF-STATE) CURRENT	≤ 0.8 mA	TIME DELAY BEFORE AVAILABILITY	≤ 10 ms	POWER-ON EFFECT PROTECTION	INCORPORATED	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, 6, 13 AND IEC IP67	SHOCK	30 g, 11 ms	VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)	LED FUNCTION	YELLOW: OUTPUT ENERGIZED	SENSING RANGE	2 mm = .079" (NOMINAL)	SWITCHING FREQUENCY	1000 Hz	REPEATABILITY	≤ 2% of NOMINAL SENSING RANGE	SHIELDED	YES
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SOURCE DRAWING - FOR REFERENCE ONLY

NOTE:

1. ALL TOLERANCES ±1.0 mm.
2. THIS SENSOR MAY BE USED AS A SINKING OR SOURCING DEVICE.

C	UPDATE HOUSING STYLE, LED COLOR	CBM	04/24/00	B3497	RELATED DOCUMENTS 1. 2. 3. 4. MATERIAL BRASS BARREL FINISH COPPER/NICKEL/ CHROME PLATING	3RD ANGLE PROJECTION  TOLERANCES UNLESS OTHERWISE SPECIFIED .X ±0.02 .XX ±0.01 .XXX ±0.005 ANGLES ±1° ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED. ORGT CBM CSCH UNIT OF MEASUREMENT INCH [MILLIMETER] DO NOT SCALE THIS DRAWING	TURCK INC High Technology Sensors and Automation Controls DATE 04/24/00 SCALE NONE	DESCRIPTION Bi 2-M12-AD4X IDENTIFICATION NO. T4405000	REV C
REV	DESCRIPTION	BY	DATE	EDD NO.						