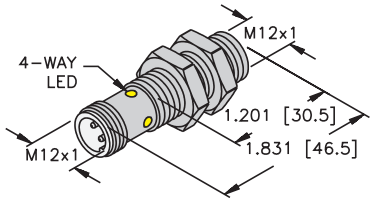
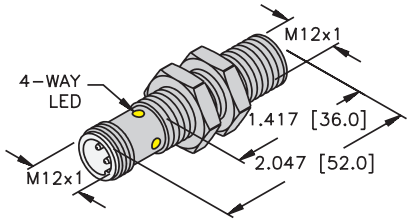
Inductive Sensors





Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
12 mm - Embeddable, *eurofast*® Connection 	Bi 4-M12K-AN6X-H1141	T4607101	*Short Barrel*	4	3-Wire DC PNP
	Bi 4-M12K-AP6X-H1141	T4607082	*Short Barrel*	4	3-Wire DC PNP
	Bi 2-M12K-VP6X-H1141	M1633005	*Short Barrel*	2	4-Wire DC PNP
12 mm - Embeddable, *eurofast* Connection 	Bi 2-M12-AD4X-H1141	T4406500		2	2-Wire DC
	Bi 3-M12-AD4X-H1141	T4405041	*Ext. Range*	3	
	Bi 2-EM12-AN6X-H1141	T4606601		2	3-Wire DC NPN
	Bi 2-M12-AN6X-H1141	T4606600		2	
	Bi 3-EM12WD-AN6X-H1141	M1634334	*Washdown*	3	
	Bi 3-M12WD-AN6X-H1141	M4607120	*Washdown*	3	
	Bi 3U-EM12-AN6X-H1141	M1634350	*Uprox*	3	
	Bi 3U-M12-AN6X-H1141	M1634150	*Uprox*	3	
	Bi 3U-M12-AN6X2-H1141	M1634155	*Uprox*	3	
	Bi 4-M12-AN6X-H1141	T4607100	*Extended Range*	4	
	Bi 2-EM12-AP6X-H1141	T4606501		2	3-Wire DC PNP
	Bi 2-M12-AP6X-H1141	T4606500		2	
	Bi 3-EM12WD-AP6X-H1141	M1634331	*Washdown*	3	
	Bi 3-M12WD-AP6X-H1141	M4607121	*Washdown*	3	
	Bi 3U-EM12-AP6X-H1141	M1634340	*Uprox*	3	
	Bi 3U-EM12H-AP6X-H1141	M1634312	*Uprox, Stoneface*	3	
	Bi 3U-M12-AP6X-H1141	M1634140	*Uprox*	3	
	Bi 3U-M12-AP6X2-H1141	M1634145	*Uprox*	3	
	Bi 4-M12-AP6X-H1141	T4607000	*Extended Range*	4	
	Bi 2-M12-VN6X-H1141	T1643000	*Comp. Outputs*	2	4-Wire DC NPN
	Bi 4-M12-VN6X-H1141	T1643200	*Ext. Range, Comp. Outputs*	4	
	Bi 2-M12-VP6X-H1141	T1633000	*Comp. Outputs*	2	4-Wire DC PNP
	Bi 4-M12-VP6X-H1141	T1633200	*Ext. Range, Comp. Outputs*	4	
	Bi 4-EM12-VP6X-H1141	T1633201	*Ext. Range, Comp. Outputs*	4	
	Bi 2-EM12-YOX-H1141	T4010098		2	2-Wire DC NAMUR
	Bi 2-M12-Y1X-H1141	M4010200		2	

Industrial Automation

TURCK Industrial Automation

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Mating Cordset	Wiring Diagram #
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5
10-65 VDC	1000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*	1
	1000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*	1
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4T-*	2
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2
	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	2
	3000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	2
	3000	≤200	-30 to +85	IP 68	SS	PA 12	N/A	YE	RKV 4T-*	2
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	GN	YE	RK 4T-*	2
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	2
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4T-*	3
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3
	2000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	3
	3000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	3
	3000	≤200	-30 to +85	IP 68	SS	PA 12	N/A	YE	RKV 4T-*	3
	3000	≤200	-30 to +85	IP 68	SS	SF	N/A	YE	RKG 4T-*/S600	3
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3
	3000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	4
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	4
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5
	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4.4T-*	5
5-30 VDC	5000	Remote	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4.21T-*	6
	5000	Remote	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.21T-*	6

Wiring Diagrams

Diagram 1

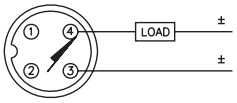


Diagram 2

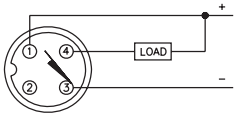


Diagram 3

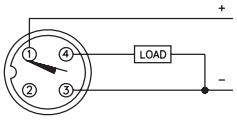


Diagram 4

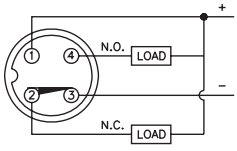


Diagram 5

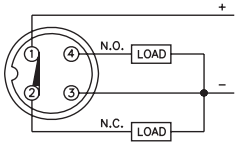
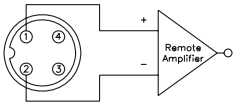
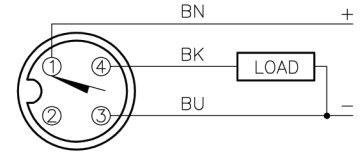


Diagram 6



* Length in meters.

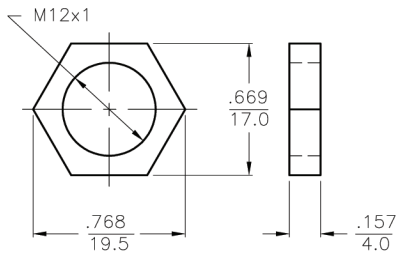
WIRING DIAGRAM



OUTPUT: AP6X

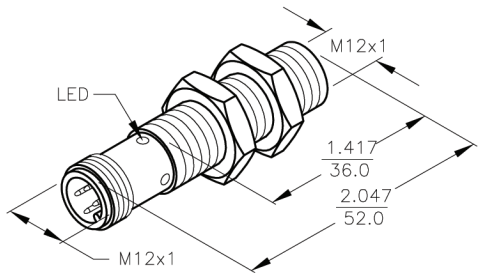
SHORT–CIRCUIT AND OVERLOAD PROTECTED

LOCKNUT LN–M12



SPECIFICATIONS

OPERATING VOLTAGE	10–30 VDC
RIPPLE	≤ 10%
DIFFERENTIAL TRAVEL (HYSTERESIS)	3–15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 1.8 V at 200 mA
OUTPUT FUNCTION	NORMALLY OPEN 3–WIRE DC SELF–CONTAINED
SHORT–CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 220 mA
CONTINUOUS LOAD CURRENT	≤ 200 mA
OFF–STATE (LEAKAGE) CURRENT	≤ 0.1 mA
NO–LOAD CURRENT	≤ 15 mA
TIME DELAY BEFORE AVAILABILITY	≤ 8 ms
POWER–ON EFFECT	PER IEC 947–5–2
REVERSE POLARITY PROTECTION	INCORPORATED
WIRE–BREAK PROTECTION	INCORPORATED
PROTECTION AGAINST TRANSIENTS	Per EN 60947–5–2
OPERATING TEMPERATURE (10% DRIFT)	–25°C to +70°C (–13°F to +158°F)
OPERATING TEMPERATURE (15% DRIFT)	–30°C to +85°C (–22°F to +185°F)
ENCLOSURE	MEETS NEMA 1, 3, 4, 6, 13 AND IEC IP68
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	LED ON: OUTPUT ENERGIZED LED FLASHING: SHORT–CIRCUIT WARNING
RATED OPERATING DISTANCE(Sn)	3 mm = .118" (NOMINAL)
SWITCHING FREQUENCY	3000 Hz
REPEATABILITY	≤ 2% of RATED OPERATING DISTANCE
EMBEDDABLE (SHIELDED)	YES
MATING PLUGS/CABLES	4–PIN "EUROFAST" CONSTRUCTION



NOTES:

1. UPROX HAS WELD FIELD IMMUNITY, SENSOR IS SUITABLE FOR USE ON RESISTANCE MACHINES.

REV	DESCRIPTION	BY	DATE	ECO NO.
A	UPDATE SENSOR GEOMETRY	CBM	09/27/99	T3086

RELATED DOCUMENTS
1.
2.
3.
4.

3RD ANGLE PROJECTION

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TURCK INC
High Technology Sensors and Automation Controls

MATERIAL: BRASS BARREL

FINISH: COPPER, NICKEL, CHROME PLATING

TOLERANCES UNLESS OTHERWISE SPECIFIED: 0.0394in [1.00mm]

DRFT: IK | DATE: 07/28/98

DSGN: | SCALE: NONE

UNIT OF MEASUREMENT: **INCH [MILLIMETER]**

DO NOT SCALE THIS DRAWING

DESCRIPTION: Bi 3U–M12–AP6X–H1141

IDENTIFICATION NO.: M1634140 | REV: A

FILE: M1634140 | SHEET 1 OF 1