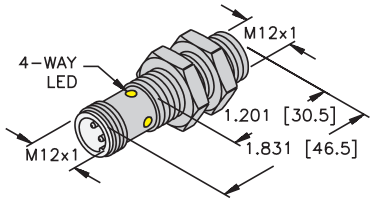
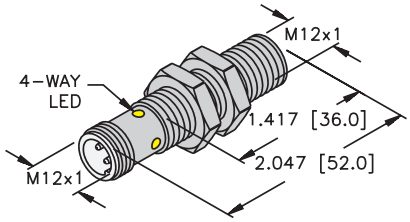
Inductive Sensors





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

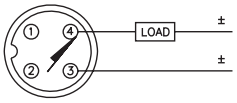


Diagram 2

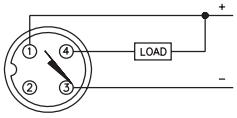


Diagram 3

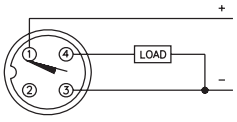


Diagram 4

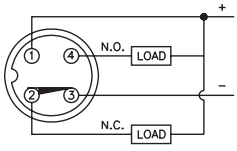


Diagram 5

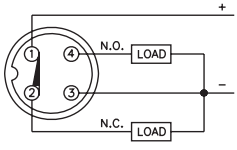
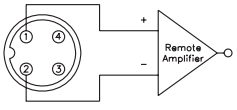


Diagram 6



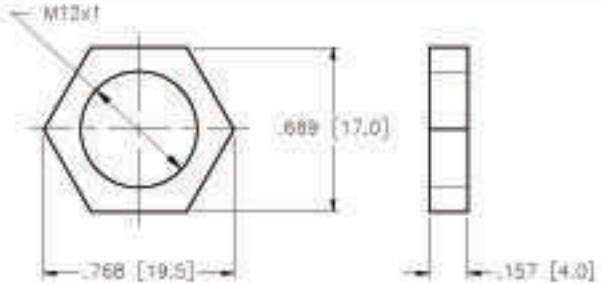
* Length in meters.

WIRING DIAGRAM



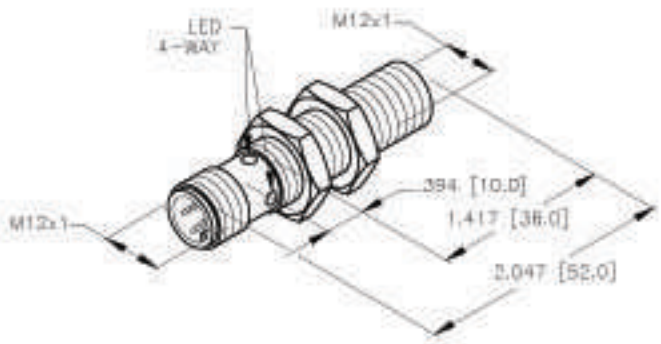
OUTPUT: VP6X

LOCKNUT LN-M12



SPECIFICATIONS

OPERATING VOLTAGE	10–30 V DC (SHORT-CIRCUIT PROTECTED)
RIPPLE	≤10%
HYSTERESIS (DIFFERENTIAL TRAVEL)	3–15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤1.8 V at 200 mA
OUTPUT FUNCTION	COMPLEMENTARY OUTPUT ONE N.O., ONE N.C. (SPDT)
TTL COMPATIBLE	NO
SHORT-CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥220 mA
CONTINUOUS LOAD CURRENT	≤200 mA
OFF-STATE (LEAKAGE) CURRENT	<10µ A
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 IP67
SHOCK	30 g, 11 ms
VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
LED FUNCTION	YELLOW: OUTPUT ENERGIZED
RATED OPERATING DISTANCE(Sn)	2mm = 0.079" (NOMINAL)
SWITCHING FREQUENCY	2000 Hz
REPEATABILITY	≤2% of RATED OPERATING DISTANCE
SHIELDED	YES



SOURCE DRAWING - FOR REFERENCE ONLY

NOTE: ALL TOLERANCES ±1.0 mm.

REV.	DESCRIPTION	BY	DATE	ECO NO.
B	MODIFY DRAWING	IK	03/09/00	T3437

RELATED DOCUMENTS
1.
2.
3.
4.

3RD ANGLE PROJECTION

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TURCK INC
High Technology Sensors and Automation Controls

MATERIAL

FINISH

TOLERANCES UNLESS OTHERWISE SPECIFIED
±0.0394 in [±1.00 mm]

DRT IK | DATE 11/12/98
DSGN | SCALE 1=1.5

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

DESCRIPTION
BI 2-M12-VP6X-H1141

IDENTIFICATION NO.
T1633000

REV.
B

FILE: T1633000

SHEET 1 OF 1