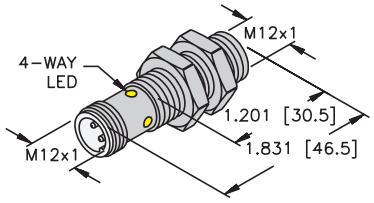
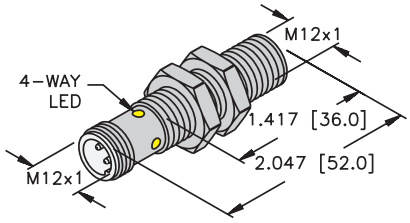
Inductive Sensors





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

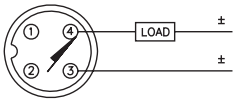


Diagram 2

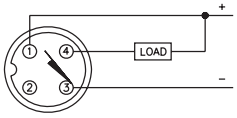


Diagram 3

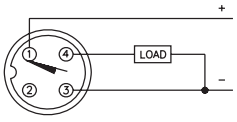


Diagram 4

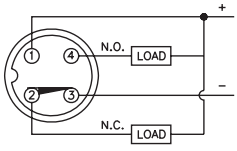


Diagram 5

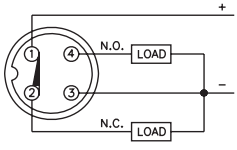
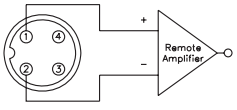
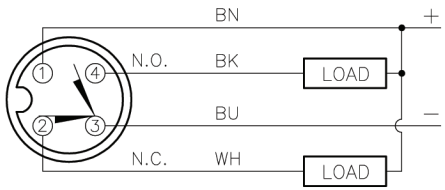


Diagram 6



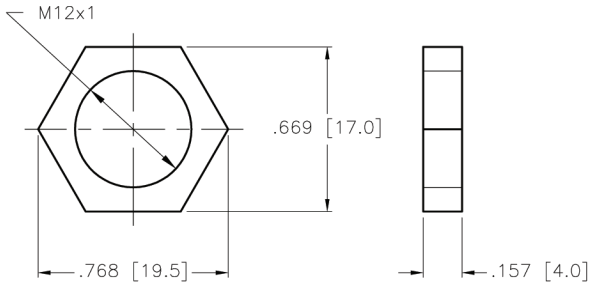
* Length in meters.

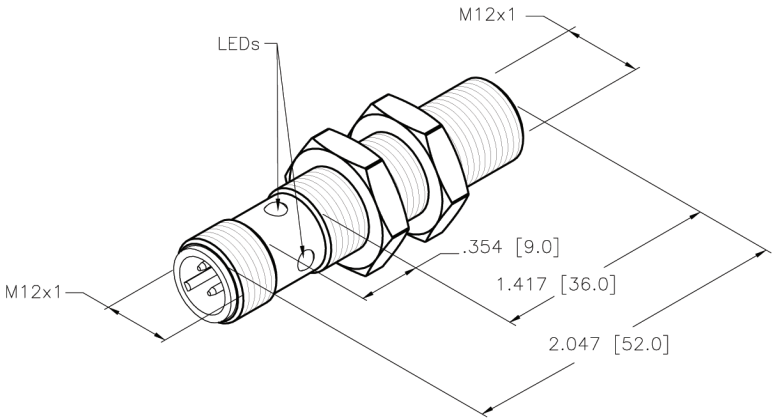
WIRING DIAGRAM



OUTPUT: VN6X

LOCKNUT LN−M12





SPECIFICATIONS

RATED OPERATING DISTANCE	4 mm [.158]
MOUNTING MODE	FLUSH
TEMPERATURE DRIFT	≤±10%
HYSTERESIS (SWITCHING DISTANCE)	3−15%
MIN. REPEAT ACCURACY	≤2%
OPERATING TEMPERATURE	−25°C to +70°C (−13°F to +158°F)
RATED OPERATIONAL VOLTAGE	10−30 VDC
MAX. RIPPLE	≤10%
RATED OPERATIONAL CURRENT	≤200 mA
NO−LOAD CURRENT	≤ 15 mA
MAX. OFF−STATE CURRENT	≤ 0.1 mA
RATED INSULATION VOLTAGE	≤ 0.5 kV
SHORT−CIRCUIT PROTECTED	YES
MAX. VOLTAGE DROP	≤ 1.8 V
WIRE−BREAK PROTECTION	INCORPORATED
REVERSE POLARITY PROTECTION	INCORPORATED
OUTPUT FUNCTION	4−WIRE, COMPLIMENTARY, NPN
MAX. SWITCHING FREQUENCY	≤ 2 kHz
HOUSING MATERIAL	BRASS, CHROME PLATED
ACTIVE FACE	PLASTIC, PA12−GF30
CONNECTOR	M12x1 EUROFAST
VIBRATION RESISTANCE	55 Hz (IN ALL 3 PLANES)
SHOCK RESISTANCE	30 g, 11 ms
DEGREE OF PROTECTION	IP 67
SWITCHING STATUS INDICATION	LED, YELLOW

REV	DESCRIPTION	BY	DATE	ECO NO.
A	DRAWING RELEASE	RDS	09/22/04	

RELATED DOCUMENTS
1.
2.
3.
4.

MATERIAL

FINISH

3RD ANGLE PROJECTION

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

THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED.

DRFT RDS
DSGN
DATE 09/21/04
SCALE 1=1.0

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

TURCK INC
High Technology Sensors and Automation Controls

DESCRIPTION
BI 4−M12−VN6X−H1141

IDENTIFICATION NO. T1643200
REV A

FILE: T1643200
SHEET 1 OF 1