

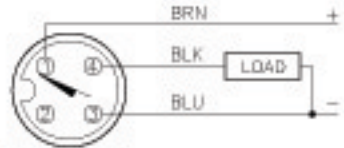
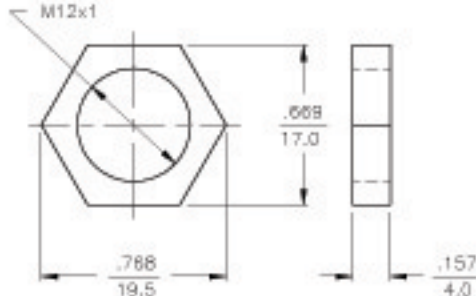
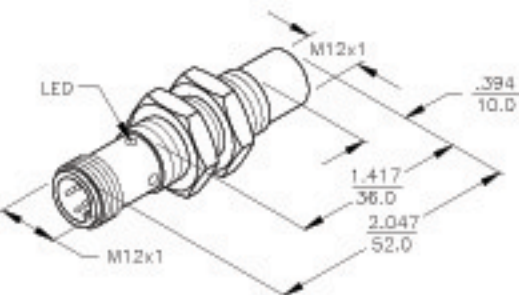
# Inductive Sensors



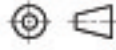

Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output	
<b>12 mm - Nonembeddable, eurofast® Connection</b>  	Ni 4-M12-AD4X-H1141	T4406700		4	2-Wire DC	
	Ni 4-M12-AD4X-H1144	M4406701		4		
	Ni 8-M12-AD4X-H1141	T4411241	<i>Ext. Range</i>	8		
	Ni 8-M12-AD4X-H1144	T4411289	<i>Ext. Range</i>	8		
	Ni 4-EM12-AN7X-H1141	T4606893	<i>TTL Compatible</i>	4	3-Wire DC NPN	
	Ni 4-M12-AN6X-H1141	T4606800		4		
	Ni 5-EM12WD-AN6X-H1141	M4653431	<i>Washdown</i>	5		
	Ni 5-M12-AN6X-H1141	T4671390		5		
	Ni 8-M12-AN6X-H1141	T4611315	<i>Ext. Range</i>	8		
	Ni 8U-EM12-AN6X-H1141	M1644350	<i>Uprox</i>	8		
	Ni 8U-M12-AN6X-H1141	M1644150	<i>Uprox</i>	8		
	Ni 8U-M12-AN6X2-H1141	M1644155	<i>Uprox, Dual LED</i>	8		
	Ni 4-M12-AP6X-H1141	T4606700		4	3-Wire DC PNP	
	Ni 5-EM12WD-AP6X-H1141	M1634331	<i>Washdown</i>	5		
	Ni 5-M12-AP6X-H1141	T4653400		5		
	Ni 8-M12-AP6X-H1141	T4611310	<i>Ext. Range</i>	8		
	Ni 8U-EM12-AP6X-H1141	M1644340	<i>Uprox</i>	8		
	Ni 8U-M12-AP6X-H1141	M1644140	<i>Uprox</i>	8		
	Ni 8U-M12-AP6X2-H1141	M1644145	<i>Uprox, Dual LED</i>	8		
	Ni 4-M12-VN6X-H1141	T1643100	<i>Comp. Output</i>	4	4-Wire DC NPN	
	Ni 8-M12-VN6X-H1141	T4611323	<i>Ext. Range, Comp. Output</i>	8		
	Ni 4-EM12-VP6X-H1141	M1633101	<i>Comp. Output</i>	4	4-Wire DC PNP	
	Ni 4-M12-VP6X-H1141	T1633100	<i>Comp. Output</i>	4		
	Ni 8-M12-VP6X-H1141	T4611324	<i>Ext. Range, Comp. Output</i>	8		
	Ni 5-M12-Y1X-H1141	M4010300			5	2-Wire DC NAMUR

Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Face	Power LED	Output LED	Mating Cordset	Wiring Diagram #	Wiring Diagrams
10-65 VDC	2000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*	1	<p><b>Diagram 1</b></p>
	2000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*/S674	2	
	2000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*	1	
	2000	≤100	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.2T-*/S674	2	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RKV 4T-*	3	<p><b>Diagram 2</b></p> <p><b>Diagram 3</b></p>
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	3	
	1500	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	3	
	2000	≤200	-25 to +70	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	
	2000	≤200	-30 to +85	IP 68	SS	PA 12	N/A	YE	RKV 4T-*	3	
	2000	≤200	-30 to +85	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 4T-*	4	<p><b>Diagram 4</b></p> <p><b>Diagram 5</b></p>
	1500	≤200	-25 to +85	IP 68, 69K	SS	PVDF	N/A	YE	RK 4T-*	4	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	4	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	4	
	2000	≤200	-30 to +85	IP 68	SS	PA 12	N/A	YE	RKV 4T-*	4	
	2000	≤200	-30 to +85	IP 67	CPB	PA 12	N/A	YE	RK 4T-*	4	
	2000	≤200	-30 to +85	IP 67	CPB	PA 12	GN	YE	RK 4T-*	4	
10-30 VDC	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5	<p><b>Diagram 6</b></p>
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	5	
10-30 VDC	2000	≤200	-25 to +70	IP 67	SS	PA 12	N/A	YE	RKV 4.4T-*	6	<p><b>Diagram 7</b></p>
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	6	
	2000	≤200	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.4T-*	6	
5-30 VDC	2000	Remote	-25 to +70	IP 67	CPB	PA 12	N/A	YE	RK 4.21T-*	7	<p><b>Diagram 7</b></p>

\* Length in meters.

WIRING DIAGRAM	LOCKNUT LN-MT12	SPECIFICATIONS																																																				
 <p>OUTPUT: AP6X</p> <p>SHORT-CIRCUIT AND OVERLOAD PROTECTED</p>		<table border="1"> <tr><td>OPERATING VOLTAGE</td><td>10-30 VDC</td></tr> <tr><td>RIPPLE</td><td>≤ 10%</td></tr> <tr><td>DIFFERENTIAL TRAVEL (HYSTERESIS)</td><td>3-15% (5% TYPICAL)</td></tr> <tr><td>VOLTAGE DROP ACROSS CONDUCTING SENSOR</td><td>≤ 1.8 V at 200 mA</td></tr> <tr><td>OUTPUT FUNCTION</td><td>NORMALLY OPEN 3-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>≥ 220 mA</td></tr> <tr><td>CONTINUOUS LOAD CURRENT</td><td>≤ 200 mA</td></tr> <tr><td>OFF-STATE (LEAKAGE) CURRENT</td><td>&lt; 100 uA</td></tr> <tr><td>NO-LOAD CURRENT</td><td>≤ 15 mA</td></tr> <tr><td>TIME DELAY BEFORE AVAILABILITY</td><td>≤ 8 ms</td></tr> <tr><td>POWER-ON EFFECT PROTECTION</td><td>PER IEC 947-5-2</td></tr> <tr><td>REVERSE POLARITY PROTECTION</td><td>INCORPORATED</td></tr> <tr><td>WIRE-BREAK PROTECTION</td><td>INCORPORATED</td></tr> <tr><td>PROTECTION AGAINST TRANSIENTS</td><td>PER EN 60947-5-2</td></tr> <tr><td>OPERATING TEMPERATURE (10% DRIFT)</td><td>-25°C to +70°C (-13°F to +158°F)</td></tr> <tr><td>OPERATING TEMPERATURE (15% DRIFT)</td><td>-30°C to +85°C (-22°F to +185°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>RED: OUTPUT ENERGIZED</td></tr> <tr><td>RATED OPERATING DISTANCE(Sn)</td><td>8 mm = .315" (NOMINAL)</td></tr> <tr><td>SWITCHING FREQUENCY</td><td>2000 Hz</td></tr> <tr><td>REPEATABILITY</td><td>≤ 2% of RATED OPERATING DISTANCE</td></tr> <tr><td>EMBEDDABLE (SHIELDED)</td><td>NO</td></tr> </table>	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	TTL COMPATIBLE	NO	SHORT-CIRCUIT PROTECTED	YES	TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 220 mA	CONTINUOUS LOAD CURRENT	≤ 200 mA	OFF-STATE (LEAKAGE) CURRENT	< 100 uA	NO-LOAD CURRENT	≤ 15 mA	TIME DELAY BEFORE AVAILABILITY	≤ 8 ms	POWER-ON EFFECT PROTECTION	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 IP67	SHOCK	30 g, 11 ms	VIBRATION	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)	LED FUNCTION	RED: OUTPUT ENERGIZED	RATED OPERATING DISTANCE(Sn)	8 mm = .315" (NOMINAL)	SWITCHING FREQUENCY	2000 Hz	REPEATABILITY	≤ 2% of RATED OPERATING DISTANCE	EMBEDDABLE (SHIELDED)	NO
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**NOTE  
PRELIMINARY  
SPECIFICATIONS**

RELATED DOCUMENTS 1. 2. 3. 4.	3RD ANGLE PROJECTION 	THIS DOCUMENT IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED.  <i>High Technology Sensors and Automation Controls</i>		
MATERIAL BRASS BARREL	TOLERANCES UNLESS OTHERWISE SPECIFIED .X ±0.02 .XX ±0.01 .XXX ±0.005	DR-T CBM	DATE 09/03/99	DESCRIPTION Ni 8U-M12-AP6X-H1141
FINISH COPPER/NICKEL CHROME PLATING	ANGLES ±1° ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY	UNIT OF MEASUREMENT <b>NCH [ MILLIMETER ]</b> DO NOT SCALE THIS DRAWING		IDENTIFICATION NO. M1644140 REV P2 FILE: M1644140 SHEET 1 OF 1

NOTES:

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

P2	CBM	09/03/99	
REV	DESCRIPTION	BY	DATE ECO NO.