

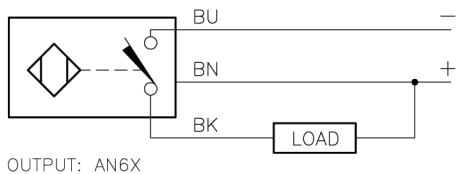
# Inductive Sensors



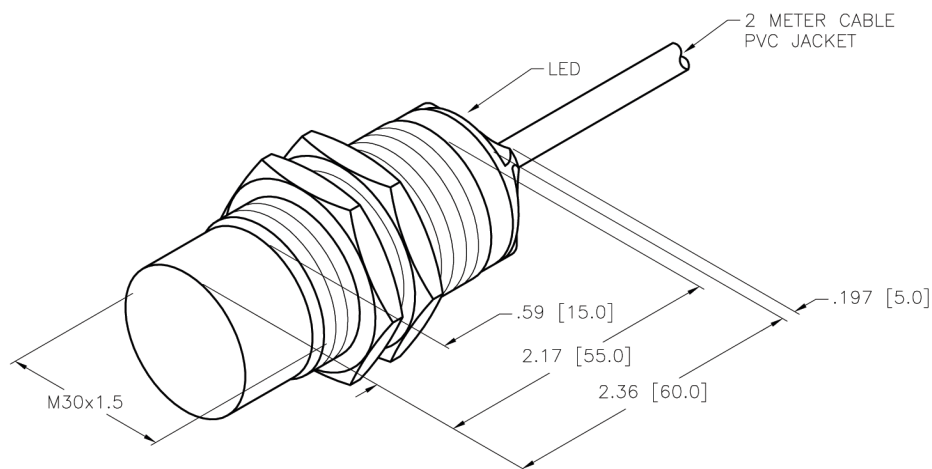
Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
<b>30 mm - Nonembeddable, Potted-In Cable</b> 	Ni15-M30-AD4X	T4417200		15	2-Wire DC
	Ni20-M30-AD4X	T4466135	<i>Extended Range</i>	20	
	Ni15-M30-AP6X/S100	M4617200	<i>High Temp. 100°C</i>	15	3-Wire DC NPN
	Ni20-M30-AN6X	T4670516	<i>Extended Range</i>	20	
	Ni20U-EM30-AN6X	M1646320	<i>Uprox</i>	20	
	Ni20U-M30-AN6X	M1646120	<i>Uprox</i>	20	
	Ni20-M30-AP6X	T4670511	<i>Extended Range</i>	20	3-Wire DC PNP
	Ni20U-EM30-AP6X	M1646300	<i>Uprox</i>	20	
	Ni20U-M30-AP6X	M1646100	<i>Uprox</i>	20	
	Ni15-M30-VN4X	T1571500	<i>Comp. Outputs</i>	15	4-Wire DC NPN
	Ni20-M30-VN4X	T4590604	<i>Extended Range</i>	20	
	Ni15-M30-VP4X	T1561500	<i>Comp. Outputs</i>	15	4-Wire DC PNP
Ni20-M30-VP4X	T4590605	<i>Extended Range</i>	20		
<b>30 mm - Nonembeddable, Potted-In Cable</b> 	Ni20-EM30WD-AN6X	M4653434	<i>Washdown</i>	20	3-Wire DC NPN
	Ni20-EM30WD-AP6X	M4653423	<i>Washdown</i>	20	3-Wire DC PNP
<b>30 mm - Nonembeddable, Potted-In Cable</b> 	Ni15-EM30D-VP6X/S120	M4617410	<i>High Temp. 120°C</i>	15	3-Wire DC PNP

Voltage	Switching Freq. (Hz)	Operating Current (mA) AC/DC	Operating Temp. (°C)	Protection	Housing	Face	End Cap	Power LED	Output LED	Cable Length/ Cable Mat.	Wiring Diagram #	Wiring Diagrams
10-65 VDC	200	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	<b>Diagram 1</b> 
	200	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1	
10-30 VDC	500	≤200	-25 to +100	IP 67	CPB	IRPA	EPTR	N/A	YE	2M/PVC	2	<b>Diagram 2</b> 
	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
	1500	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	2	
	1500	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	2	
10-30 VDC	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	<b>Diagram 3</b> 
	1500	≤200	-30 to +85	IP 68	SS	PA 12	EPTR	N/A	YE	2M/PVC	3	
	1500	≤200	-30 to +85	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	3	
10-65 VDC	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	<b>Diagram 3</b> 
	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	4	
10-65 VDC	500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5	<b>Diagram 4</b> 
500	≤200	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	5		
10-30 VDC	1000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	2	<b>Diagram 4</b> 
10-30 VDC	1000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3	
10-30 VDC	1000	≤200	-25 to +85	IP 68, 69K	SS	PVDF	EPTR	N/A	YE	2M/PUR	3	<b>Diagram 5</b> 
10-30 VDC	1000	≤200	-25 to +120	IP 67	SS	PTFE	PTFE	N/A	YE	2M/PTFE	3	

WIRING DIAGRAM



SHORT-CIRCUIT AND OVERLOAD PROTECTED



SPECIFICATIONS

OPERATING VOLTAGE	10-30 VDC
HYSTERESIS (DIFFERENTIAL TRAVEL)	3-15% (5% TYPICAL)
VOLTAGE DROP ACROSS CONDUCTING SENSOR	≤ 1.8 V at 200 mA
OUTPUT FUNCTION	NORMALLY OPEN 3-WIRE DC
TTL COMPATIBLE	NO
SHORT-CIRCUIT PROTECTED	YES
TRIGGER CURRENT FOR OVERLOAD PROTECTION	≥ 220 mA
CONTINUOUS LOAD CURRENT	≤ 200 mA
OFF-STATE (LEAKAGE) CURRENT	< 100 μA
NO-LOAD CURRENT	≤ 10 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)	20 mm = .787" (NOMINAL)
SWITCHING FREQUENCY	500 Hz
REPEATABILITY	≤ 2% of RATED OPERATING DISTANCE
SHIELDED	NO
TEMPERATURE DRIFT	< ±15%
LOCKNUT M30x1.5	36 mm AF, 41.5 mm AC, 5 mm THK

SOURCE DRAWING - FOR REFERENCE ONLY

NOTE:

- MATERIALS:  
 BARREL - CHROME PLATED BRASS  
 LOCKNUTS - CHROME PLATED BRASS  
 SENSING FACE - PA12-GF30 PLASTIC  
 END CAP - TPE-O ELASTOMER
- ALL DIMENSION TOLERANCES ARE ± 1.0 mm.

RELATED DOCUMENTS		3RD ANGLE PROJECTION		THIS DRAWING IS PROPERTY OF TURCK INC. USE OF THIS DOCUMENT WITHOUT WRITTEN PERMISSION IS PROHIBITED.		 High Technology Sensors and Automation Controls	
1. 2. 3. 4.				DRFT	IK	DATE	03/12/01
MATERIAL		TOLERANCES UNLESS OTHERWISE SPECIFIED		DGSN	IK	SCALE	1=1.5
SEE NOTE 1		.X ±0.02 .XX ±0.01 .XXX ±0.005 ANGLES ±1°		UNIT OF MEASUREMENT		DESCRIPTION	
FINISH		ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY		<b>INCH [ MILLIMETER ]</b>		NI20-M30-AN6X	
SEE NOTE 1				DO NOT SCALE THIS DRAWING		IDENTIFICATION NO.	
						T4670516	
A		DRAWING RELEASE		IK		05/08/01	
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						FILE: T4670516	
						SHEET 1 OF 1	