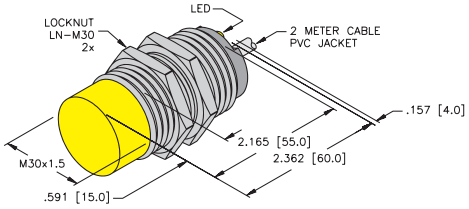
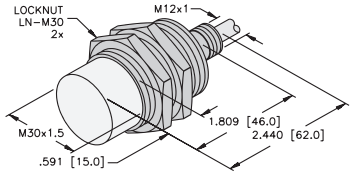
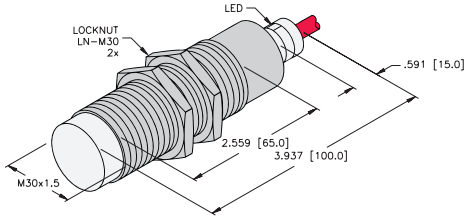
Inductive Sensors

Housing Style	Part Number	ID Number	Features	Sensing Range (mm)	Output
30 mm - Nonembeddable, Potted-In Cable 	Ni15-M30-AD4X	T4417200		15	2-Wire DC
	Ni20-M30-AD4X	T4466135	*Extended Range*	20	
	Ni15-M30-AP6X/S100	M4617200	*High Temp. 100°C*	15	3-Wire DC NPN
	Ni20-M30-AN6X	T4670516	*Extended Range*	20	
	Ni20U-EM30-AN6X	M1646320	*Uprox*	20	
	Ni20U-M30-AN6X	M1646120	*Uprox*	20	
	Ni20-M30-AP6X	T4670511	*Extended Range*	20	3-Wire DC PNP
	Ni20U-EM30-AP6X	M1646300	*Uprox*	20	
	Ni20U-M30-AP6X	M1646100	*Uprox*	20	
	Ni15-M30-VN4X	T1571500	*Comp. Outputs*	15	4-Wire DC NPN
	Ni20-M30-VN4X	T4590604	*Extended Range*	20	
	Ni15-M30-VP4X	T1561500	*Comp. Outputs*	15	4-Wire DC PNP
	Ni20-M30-VP4X	T4590605	*Extended Range*	20	
30 mm - Nonembeddable, Potted-In Cable 	Ni20-EM30WD-AN6X	M4653434	*Washdown*	20	3-Wire DC NPN
	Ni20-EM30WD-AP6X	M4653423	*Washdown*	20	3-Wire DC PNP
30 mm - Nonembeddable, Potted-In Cable 	Ni15-EM30D-VP6X/S120	M4617410	*High Temp. 120°C*	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 #
10-65 VDC	200	≤100	-25 to +70	IP 67	CPB	PA 12	EPTR	N/A	YE	2M/PVC	1
	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
	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
	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
	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
	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
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 +120	IP 67	SS	PTFE	PTFE	N/A	YE	2M/PTFE	3

Wiring Diagrams

Diagram 1

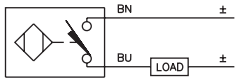


Diagram 2

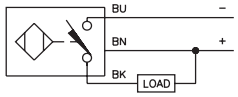


Diagram 3

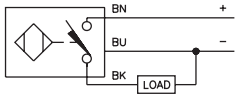


Diagram 4

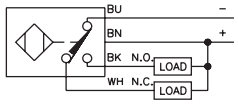
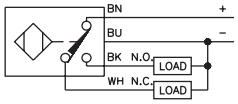
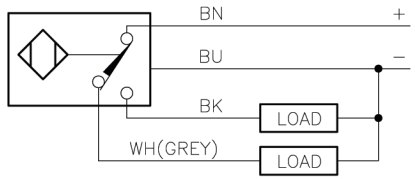


Diagram 5

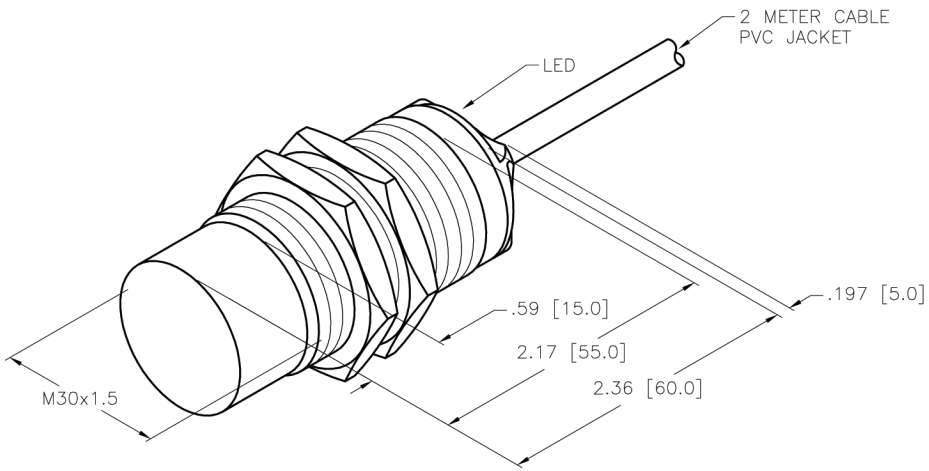


WIRING DIAGRAM



OUTPUT: VP4X

SHORT–CIRCUIT AND OVERLOAD PROTECTED



SPECIFICATIONS

OPERATING VOLTAGE	10–65 VDC
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	<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
EMBEDDABLE (SHIELDED)	NO
TEMPERATURE DRIFT	<±15%
LOCKNUT M30x1.5	36 mm AF, 41.5 mm AC, 5 mm THK

SOURCE DRAWING - FOR REFERENCE ONLY

NOTE:

1. ALL DIMENSIONAL TOLERANCES ±1.0mm.
2. MATERIALS:
   BARREL – CHROME PLATED BRASS
   LOCKNUTS – CHROME PLATED BRASS
   SENSING FACE – PA12–GF30 PLASTIC
   END CAP – TPE–O ELASTOMER

REV	DESCRIPTION	BY	DATE	ECO NO.
A	DRAWING RELEASE	CBM	06/07/01	

RELATED DOCUMENTS
1.
2.
3.
4.

3RD ANGLE PROJECTION

MATERIAL: SEE NOTE

FINISH: SEE NOTE

TOLERANCES UNLESS OTHERWISE SPECIFIED
.X ±0.02
.XX ±0.01
.XXX ±0.005
ANGLES ±1°
ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY

DRFT: IK
DATE: 03/12/01
DSGN:
SCALE: 1=1.5

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

TURCK INC
High Technology Sensors and Automation Controls

DESCRIPTION: Ni20–M30–VP4X
IDENTIFICATION NO.: T4590605
REV: A
FILE: T4590605
SHEET 1 OF 1