

# Inductive Sensors



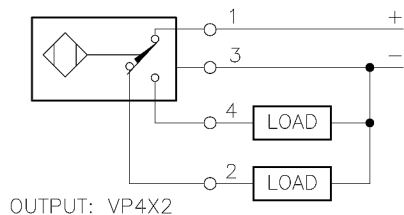
Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
<p><b>CP40 - Embeddable/Nonembeddable, Terminal Chamber</b></p>	Bi15-CP40-AD4X	M4477000		•	15	2-Wire DC
	Ni20-CP40-AD4X	M4477100			20	
	Bi15U-CP40-AN6X2	M1623512	<i>Uprox</i>	•	15	3-Wire DC NPN
	Bi15-CP40-AN6X2	M1623000		•	15	
	Ni20-CP40-AN6X2	M1623100			20	
	Ni25U-CP40-AN6X2	M1623711	<i>Uprox</i>		25	
	Ni40U-CP40-AN6X2	M1623610	<i>Uprox, Ext. Range</i>		40	
	Bi15-CP40-AN6X2/S97	M1623001	<i>Low Temp -40° C</i>	•	15	
	Bi15U-CP40-AP6X2	M1623502	<i>Uprox</i>	•	15	3-Wire DC PNP
	Bi15-CP40-AP6X2	M1603000		•	15	
	Ni20-CP40-AP6X2	M1603100			20	
	Ni25U-CP40-AP6X2	M1623701	<i>Uprox</i>		25	
	Ni40U-CP40-AP6X2	M1623602	<i>Uprox</i>		40	
	Ni50U-CP40-AP6X2	M1625842	<i>Uprox, Ext. Range</i>		50	
	Bi15U-CP40-VN4X2	M1540511	<i>Uprox</i>	•	15	4-Wire NPN
	Bi15-CP40-VN4X2	M1525000	<b>Comp. Outputs</b>	•	15	
	Bi15-CP40-VN4X2/S100	M1514400	<b>High Temp. 100°C</b>	•	15	
	Bi20-CP40-VN4X2	M1579221	<b>Ext. Range</b>	•	20	
	Ni20-CP40-VN4X2	M1525100	<b>Comp. Outputs</b>		20	
	Ni20-CP40-VN4X2/S100	M1527200	<b>High Temp. 100°C</b>		20	
	Ni20NF-CP40-VN4X2	M1528200	<i>Nonferrous</i>		20	
	Ni35-CP40-VN4X2	M1525400	<b>Comp. Outputs</b>		35	
	Ni40U-CP40-VN4X2	M1540611	<i>Uprox, Ext. Range</i>		40	
	Ni50U-CP40-VN4X2	M1625807	<i>Uprox</i>		50	
	Bi15U-CP40-VP4X2	M1540501	<i>Uprox</i>	•	15	4-Wire PNP
	Bi15-CP40-VP4X2	M1501000	<b>Comp. Outputs</b>	•	15	
	Bi15-CP40-VP4X2/S100	M1501900	<b>High Temp. 100°C</b>	•	15	
	Bi20-CP40-VP4X2	M1501200	<b>Ext. Range</b>	•	20	
	Ni20-CP40-VP4X2	M1501100	<b>Comp. Outputs</b>		20	
	Ni20-CP40-VP4X2/S100	M1502000	<b>High Temp. 100°C</b>		20	
	Ni20NF-CP40-VP4X2	M1508200	<i>Nonferrous</i>		20	
	Ni35-CP40-VP4X2	M1501400	<b>Comp. Outputs</b>		35	
	Ni40U-CP40-VP4X2	M1540601	<i>Uprox, Ext. Range</i>		40	
	Ni50U-CP40-VP4X2	M1538303	<i>Uprox</i>		50	
	Bi15U-CP40-ASIX2	M1901003	<i>Uprox</i>	•	15	2-Wire ASI-BUS
	Ni40U-CP40-ASIX2	M1901008	<i>Uprox</i>		40	



Voltage	Switching Freq. (Hz)	Operating Current (mA)	Operating Temp. (°C)	Protection	Housing	Front Cap/Face	Power LED	Output LED	Mating Cord, Cable Length/Jacket	Wiring Diagram #	Wiring Diagrams
10-65 VDC	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1	<b>Diagram 1</b> 
	150	≤100	-25 to +70	IP 67	PBT	PBT	N/A	YE	- - - -	1	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	<b>Diagram 2</b> 
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	
	250	≤200	-40 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	<b>Diagram 3</b> 
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	<b>Diagram 4</b> 
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	0 to +60	IP 67	PBT	PBT	GN	YE	- - - -	4	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	<b>Diagram 5</b> 
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
10-65 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	<b>Diagram 6</b> 
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	100	≤200	0 to +60	IP 67	PBT	PBT	GN	YE	- - - -	5	
	150	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	
18-33 VDC	200	N/A	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	6	
	200	N/A	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	6	

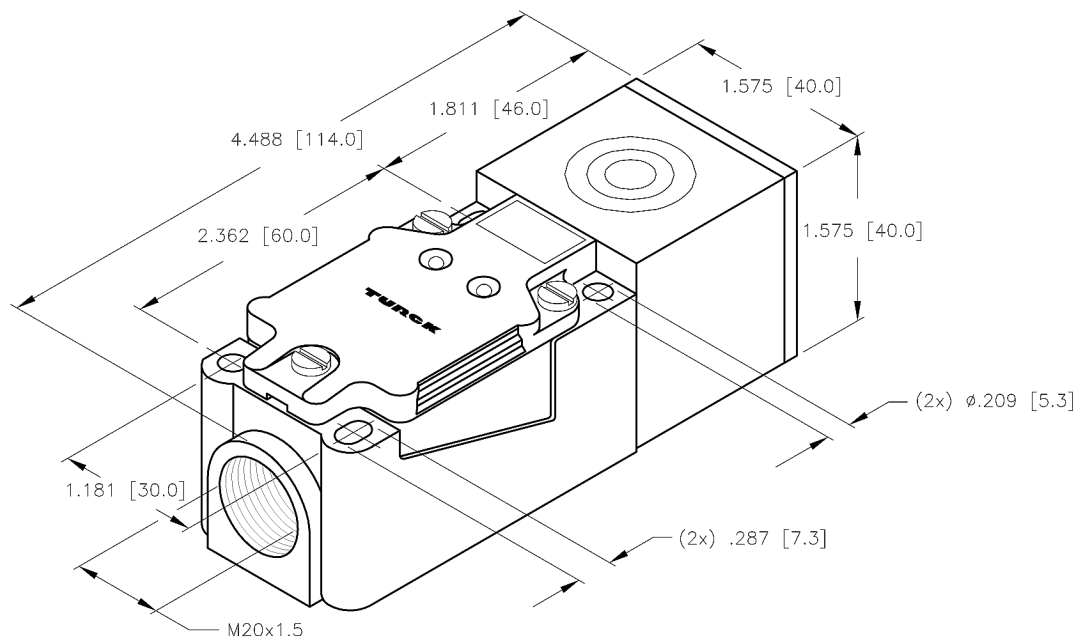
Rectangular

WIRING DIAGRAM



OUTPUT: VP4X2

SHORT-CIRCUIT AND OVERLOAD PROTECTED



SPECIFICATIONS

DIFFERENTIAL TRAVEL (HYSTERESIS)	3-15% (5% TYPICAL)
MAX. TEMPERTURE DRIFT	$\leq \pm 10\% C'$
MIN. REPEAT ACCURACY	$\leq 2\%$
OPERATING TEMPERATURE	-25°C to +70°C (-13°F to +158°F)
OPERATING VOLTAGE	10-65 VDC
RIPPLE	$\leq 10\%$
RATED OPERATIONAL CURRENT	$\leq 200$ mA
NO-LOAD CURRENT	$\leq 15$ mA
OFF-STATE (LEAKAGE) CURRENT	$\leq 0.1$ mA
MAX. SWITCHING FREQUENCY	$\leq 0.25$ kHz
RATED INSULATION VOLTAGE	$\leq 0.5$ kV
OUTPUT FUNCTION	4-WIRE DC, CHANGE OVER, PNP
SHORT-CIRCUIT PROTECTED	YES
MAX. VOLTAGE DROP	$\leq 1.8$ V
WIRE-BREAK PROTECTION	INCORPORATED
REVERSE POLARITY PROTECTION	INCORPORATED
DEGREE OF PROTECTION	IP 68, CLASS 2
HOUSING MATERIAL	PBT-GF30-VO, PLASTIC
ACTIVE FACE	PBT-GF30-VO, PLASTIC
VIBRATION RESISTANCE	55 Hz, 1 mm AMPLITUDE (IN ALL 3 PLANES)
SHOCK RESISTANCE	30 g, 11 ms
SUPPLY VOLTAGE INDICATION	LED, GREEN
SWITCHING STATUS INDICATION	LED, YELLOW
RATED OPERATING DISTANCE	50 mm
MOUNTING MODE	NON-FLUSH, PARTIAL FLUSH MOUNTING POSSIBLE

SOURCE DRAWING - FOR REFERENCE ONLY

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	RDS	DATE	DESCRIPTION
MATERIAL		TOLERANCES UNLESS OTHERWISE SPECIFIED		DSGN	EH	SCALE	NI50U-CP40-VP4X2
PBT-GF30-VO PLASTIC		.X $\pm 0.02$ .XX $\pm 0.01$ .XXX $\pm 0.005$ ANGLES $\pm 1^\circ$		UNIT OF MEASUREMENT		IDENTIFICATION NO.	
FINISH		ALL MILLIMETER DIMENSIONS ARE REFERENCE ONLY		INCH [ MILLIMETER ]		M1538303	
A		DRAWING RELEASE		DO NOT SCALE THIS DRAWING		REV	
RDS		11/14/05		FILE: M1538303		A	
REV	DESCRIPTION	BY	DATE	ECO NO.	SHEET 1 OF 1		