



CP80



High Temperature Sensors
Modular Construction

2-Wire DC, Requires Remote Amplifier
 5-30 VDC
 Variable Resistance Output, NAMUR (EN 50227)



Sensor Selection

Part Number	Embeddable	Rated Operating Distance (mm)	Housing Diameter (mm)	Drawing #	Wiring Diagram	# of LEDs	FM Approved Division 1 **	Time Delay Before Availability (ms)	Switching Frequency (Hz)	ID Number	Connection
Ni40-CP80-Y0/S100		40	80	1	A	0	•	8	100	M1040300	See Quick Disconnect Options below

"/S100" - These sensors will operate up to 100°C (212°F)

** Factory Mutual approval applies only when used with Factory Mutual approved switching amplifiers.

Note: Y0 and Y1 have identical electrical properties. See Sensors Catalog for differences in European approvals.

Quick Disconnect Options

For **minifast** connector:a Add "-B1141" suffix to part number.
 Suggested cordset: RKM 40-2M
 For **eurofast** connector: Add "-H1141" suffix to part number.
 Suggested cordset: RK 4.21T-2

Material

Housing: PBT-GF30-VO Plastic
 Terminal Chamber Cover: Trogamid T

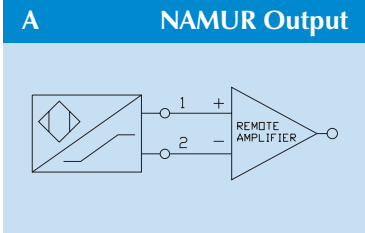
Accessories

Accessories and mounting devices can be found in "Sensors" catalog. Remote Amplifier required. Consult TURCK *Isolated Barriers and Amplifiers* catalog.

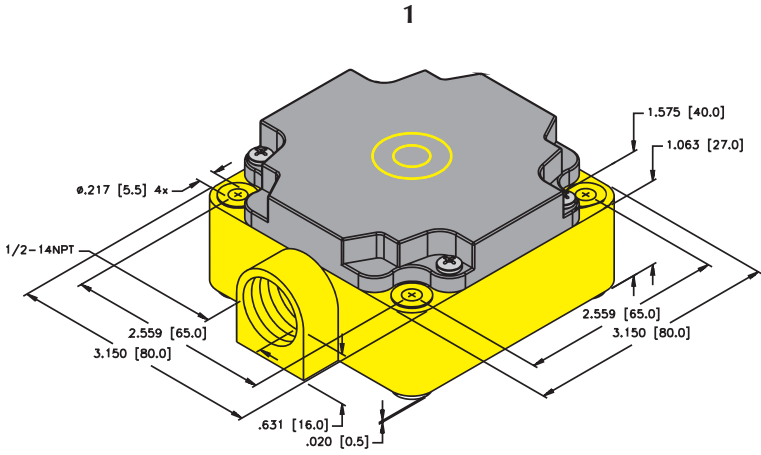
Specifications

Differential Travel (Hysteresis)	1-10% (5% typical)
Nominal Voltage	8.2 VDC (EN 50227)
Resistance Change from Nonactivated to Activated	1.0 k to >8.0 k
Resulting Current Change	≥2.2 mA to ≤1.0 mA
Recommended Switching Point for Remote Amplifier	1.55 mA
Power-On Effect	Realized in Amplifier
Reverse Polarity Protection	Incorporated
Wire-Break Protection	Realized in Amplifier
Transient Protection	Realized in Amplifier
Operating Temperature	-25°C to +100°C (-13°F to +212°F)
Enclosure	Meets NEMA 1,3,4,6,13 and IEC IP 67
Shock	30 g, 11 ms
Vibration	55 Hz, 1 mm Amplitude in all 3 Planes
Repeatability	≤2% of Rated Operating Distance

Wiring Diagram



Dimensions



Inductive Sensors



Housing Style - Rectangular	Part Number	ID Number	Features	Embeddable	Sensing Range (mm)	Output
CP80 - Embeddable/Nonembeddable, Terminal Chamber 	Ni 75U-CP80-AN6X2	M1623811	<i>Uprox</i>		75	3-Wire DC NPN
	Ni 75U-CP80-AP6X2	M1623801	<i>Uprox</i>		75	3-Wire DC PNP
	Bi 40-CP80-VN4X2	M1579800	<i>Comp. Outputs</i>	•	40	4-Wire DC NPN
	Ni 40-CP80-VN4X2	M1525500	<i>Comp. Outputs</i>		40	
	Ni 50-CP80-VN4X2	M1525600	<i>Comp. Outputs</i>		50	
	Ni 75U-CP80-VN4X2	M1540811	<i>Uprox</i>		75	
	Bi 40-CP80-VP4X2	M1569800	<i>Comp. Outputs</i>	•	40	4-Wire DC PNP
	Ni 40-CP80-VP4X2	M1501500	<i>Comp. Outputs</i>		40	
	Ni 50-CP80-VP4X2	M1501600	<i>Comp. Outputs</i>		50	
	Ni 75U-CP80-VP4X2	M1540801	<i>Uprox</i>		75	
	Bi 40-CP80-FDZ30X2	M4230901	<i>Prog. Outputs</i>	•	40	2-Wire AC/DC Short-Circuit Protected
	Ni 50-CP80-FDZ30X2	M4232100	<i>Prog. Outputs</i>		50	
	Ni 50-CP80-FDZ30X2/S100	M4229000	<i>Prog. Outputs</i>		50	
	Ni 75U-CP80-FDZ30X2	M4280901	<i>Uprox</i>		75	
	Bi 40-CP80-FZ3X2	M1340401	<i>Prog. Outputs</i>	•	40	2-Wire AC/DC
	Ni 40-CP80-FZ3X2	M1341500	<i>Prog. Outputs</i>		40	
	Ni 40-CP80-FZ3X2/S100	M1345300	<i>High Temp. 100°C</i>		40	
	Ni 50-CP80-FZ3X2	M1341600	<i>Prog. Outputs</i>		50	
	Ni 40-CP80-Y1	M1040000			40	2-Wire NAMUR
Ni 50-CP80-Y1	M1040100			50		
Ni 75U-CP80-ASIX2	M1901010		<i>Uprox</i>		75	2-Wire ASI-BUS

For detailed sensor specifications see Section M.
Normally Closed versions available upon request, consult factory.



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
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	1	Diagram 1
10-30 VDC	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	2	Diagram 2
10-65 VDC	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	Diagram 3
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	3	
10-65 VDC	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	Diagram 4
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	100	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	4	
	250	≤200	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	4	
20-250 VAC 10-300 VDC	60	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	Diagram 5
	100	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	25	≤400/300	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	5	
20-250 VAC 10-300 VDC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +100	IP 67	PBT	PBT	GN	YE	- - - -	5	
	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	5	
5-30 VDC	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	N/A	- - - -	6	Diagram 6
	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	N/A	- - - -	6	
18-33 VDC	200	N/A	-30 to +85	IP 67	PBT	PBT	GN	YE	- - - -	7	Diagram 7

Rectangular

For material descriptions see page M22.



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	60	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	1	<p>Diagram 1</p>
10-65 VDC	60	≤200	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	2	<p>Diagram 2</p>
	250	≤200	-30 to +85	IP 68	PBT	PBT	GN	YE	- - - -	2	
10-300 VDC 20-250 VAC	100	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	<p>Diagram 3</p> <p>-OR-</p>
10-300 VDC 20-250 VAC	20	≤400/300	-25 to +70	IP 67	PBT	PBT	GN	YE	- - - -	3	
5-30 VDC	100	Remote	-25 to +70	IP 67	PBT	PBT	N/A	N/A	- - - -	4	<p>Diagram 4</p>

Rectangular

For material descriptions see page M22.