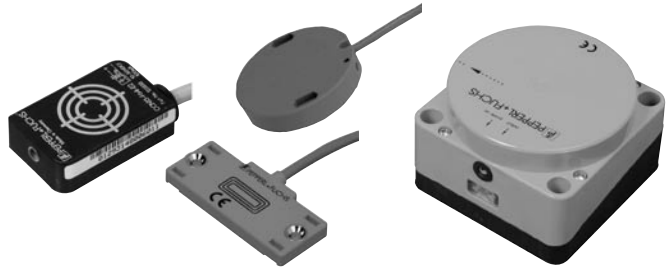


3- and 4-Wire DC Surface Mount Capacitive Sensors

- 2 to 50 mm sensing ranges
- Multiple housing styles
- Tie-wrap mounting styles
- Chemical resistant housing available



Technical Specifications

SUPPLY VOLTAGE		10-30 VDC
LOAD CURRENT (I_L)	<i>CJ40-FP Models</i>	200 mA max.
	<i>All Other Models</i>	100 mA max.
LEAKAGE CURRENT (OFF-STATE)		≤ 0.5 mA
OUTPUT	<i>Suffix E0</i>	NPN normally open
	<i>Suffix E1</i>	NPN normally closed
	<i>Suffix E2</i>	PNP normally open
	<i>Suffix E3</i>	PNP normally closed
	<i>Suffix E0123</i>	NPN or PNP N.O. or N.C.
	<i>Suffix A2</i>	PNP normally open & normally closed
VOLTAGE DROP AT I_L (MAX.)	<i>CBN/CCN Models</i>	≤ 2 VDC
	<i>CJ Models</i>	≤ 3 VDC
HYSTERESIS		3-20% (10% typical)
SHORT CIRCUIT AND OVERLOAD PROTECTION		Yes
REVERSE POLARITY PROTECTED		Yes
LED INDICATION		See dimension drawings
SENSING FACE MATERIAL		PBT
STANDARDS		EN 60947-5-2
ENVIRONMENTAL PROTECTION	<i>CJ Models</i>	IP65
	<i>CBN Models</i>	IP67
	<i>CCN Models</i>	IP68
AMBIENT TEMPERATURE		-13 °F to +158 °F (-25 °C to +70 °C)
APPROVALS		



See pages 803-854 for cordsets



See pages 865-872 for accessories

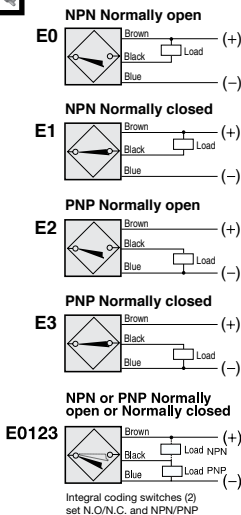
3-Wire and 4-Wire DC

Wiring Diagrams

3-Wire DC



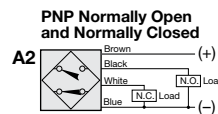
Cable Connection



4-Wire DC



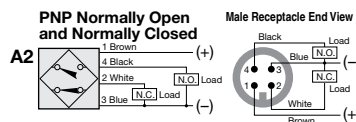
Cable Connection



Quick Disconnect

Note: Wiring diagrams show quick disconnect pin numbers.

V1 Type



Surface Mount Capacitive Sensors

2-Meter Cable Models							
Model Number	Range (mm)	Mounting	Electrical Output	Switching Frequency	Housing Material	Cable Jacket/Size	Dwg. No.
CBN2-F46-E0	2	Nonflush	NPN N.O.	10 Hz	PBT	PVC/26 AWG	1
CBN2-F46-E2	2	Nonflush	PNP N.O.	10 Hz	PBT	PVC/26 AWG	1
CBN5-F46-E0	5	Nonflush	NPN N.O.	10 Hz	PBT	PVC/26 AWG	1
CBN5-F46-E1	5	Nonflush	NPN N.C.	10 Hz	PBT	PVC/26 AWG	1
CBN5-F46-E2	5	Nonflush	PNP N.O.	10 Hz	PBT	PVC/26 AWG	1
CBN5-F46-E3	5	Nonflush	PNP N.C.	10 Hz	PBT	PVC/26 AWG	1
CCN5-F46A-E0	5	Nonflush	NPN N.O.	10 Hz	PVDF	FEP/26 AWG	2
CCN5-F46A-E2	5	Nonflush	PNP N.O.	10 Hz	PVDF	FEP/26 AWG	2
CBN8-F64-E0	8	Nonflush	NPN N.O.	5 Hz	PBT	PVC/22 AWG	3
CBN8-F64-E1	8	Nonflush	NPN N.C.	5 Hz	PBT	PVC/22 AWG	3
CBN10-F46-E0	10	Nonflush	NPN N.O.	5 Hz	PBT	PVC/26 AWG	1
CBN10-F46-E2	10	Nonflush	PNP N.O.	5 Hz	PBT	PVC/26 AWG	1
CBN12-F64-E2	12	Nonflush	PNP N.O.	20 Hz	PBT	PUR/22 AWG	3
CCN15-F64-E2	15	Nonflush	PNP N.O.	20 Hz	PBT	PUR/22 AWG	3
CJ30-50K10-E0123	1-30	Nonflush	NPN or PNP N.O. or N.C.	50 Hz	POM	PUR/24 AWG	4



Terminal Connection Models							
Model Number	Range (mm)	Mounting	Electrical Output	Switching Frequency	Housing Material	Electrical Connection	Dwg. No.
CJ40-FP-A2-P4*	5-50	Nonflush	PNP N.O. & N.C.	10 Hz	PBT/POM w/metal base	Terminal housing	5



Capacitive Surface Mount

*CJ40-FP-A2-P4-V1 quick disconnect model available.
Note: Sensing range determined with water target.

Drawing No. 1

CBN2-F46-E0 [NPN N.O.] CBN5-F46-E2 [PNP N.O.]
 CBN2-F46-E2 [PNP N.O.] CBN5-F46-E3 [PNP N.C.]
 CBN5-F46-E0 [NPN N.O.] CBN10-F46-E0 [NPN N.O.]
 CBN5-F46-E1 [NPN N.C.] CBN10-F46-E2 [PNP N.O.]

LED Yellow: Output Status
 3mm diameter through hole
 Slot for Tie Wrap Mount

2, 5, and 10 mm Sensing Ranges

Drawing No. 2

CCN5-F46A-E0 [NPN N.O.]
 CCN5-F46A-E2 [PNP N.O.]

LED Red: Output Status
 3mm diameter through hole
 Slot for Tie Wrap Mount

5 mm Sensing Range

Drawing No. 3

CBN8-F64-E0 [NPN N.O.] CBN12-F64-E2 [PNP N.O.]
 CBN8-F64-E1 [NPN N.C.] CCN15-F64-E2 [PNP N.O.]

LED
 M3

8 mm Sensing Range

Drawing No. 4

CJ30-50K10-E0123 [NPN or PNP N.O. or N.C.]

Can be mounted w/MJ nut SW5.5 MF inter hex bolt, flush. 42 mm between holes

Potentiometer
 LED Yellow: Output Status (3 sides)
 Underside: Integral coding switches (2) configure N.O./N.C. and NPN/PNP

1-30 mm Sensing Range

Drawing No. 5

CJ40-FP-A2-P4 [PNP N.O. & N.C.]

1/2" NPT
 Potentiometer
 LED Yellow: Output Status
 Ø5.3 thru (4 places)

CJ40-FP-A2-P4-V1

5-50 mm Sensing Range

3-Wire and 4-Wire DC