CR Series Capacitive Proximity Sensors

Rectangular plastic - DC

- Low profile housing ideal for sight glass applications
- N.O./N.C. selectable
- IP65/IP67 rated
- LED status indicators
- Auto-detect circuit
- Push button teach
- Mounting accessories available

CR Series Capacitive Proximity Selection Chart								
Part Number	Price	Sensing Distance	Mounting	Output State	Logic	Connection	Wiring	Dimensions
CR1-00-2A	$71.00	12 mm [0.47 in]	Non-flush	N.O./N.C.	NPN/PNP	2m [6.5 ft] axial cable	Diagram 1	Figure 1

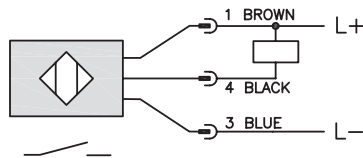| CR Series Capacitive Proximity Specifications	
Mounting Type	Non-flush
Nominal Sensing Distance	12mm [0.47 in]
Operating Distance	NA
Material Correction Factors	
Output Type	NPN/PNP; N.O./N.C.
Operating Voltage	10 to 36VDC
No-load Supply Current	< 17mA
Operating (Load) Current	100mA
Off-state (Leakage) Current	NA
Voltage Drop	< 2.5V
Switching Frequency	10Hz
Differential Travel (% of Nominal Distance)	NA
Repeat Accuracy	
Ripple	
Time Delay Before Availability (tv)	
Reverse Polarity Protection	Yes
Short-circuit Protection	Yes, pulsed
Operating Temperature	-25 to 80°C [-13 to 176°F]
Protection Degree (DIN 40050)	IEC IP65/IP67
Indication/Switch Status	Yellow [output energized]
Housing Material	Polybutylene Terephthalate [PBT]
Sensing Face Material	
Shock/Vibration	DIN EN 60947-5-2
Tightening Torque	NA
Weight	92g [3.25 oz]
Connectors	2m [6.5 ft] axial cable
Agency Approvals	cULus file E328811, CE, RoHS

To obtain the most current agency approval information, see the Agency Approval Checklist section on the specific part number's web page.
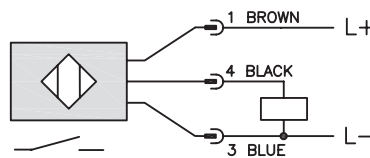
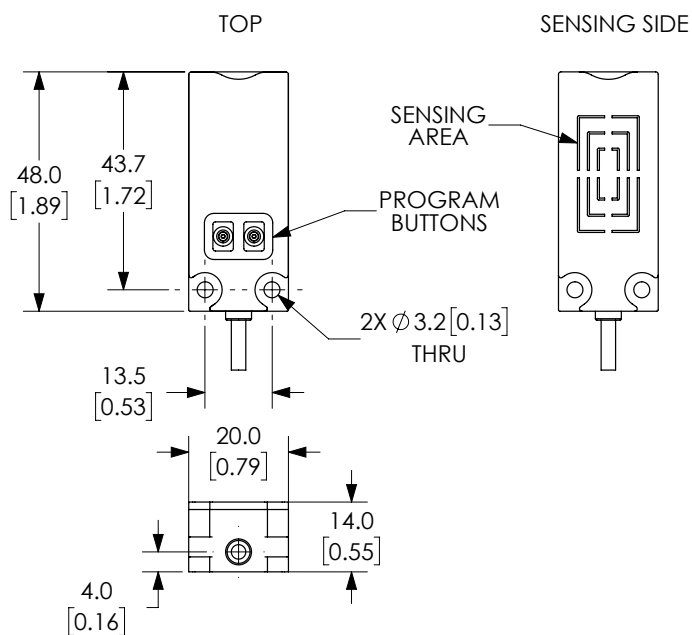# CR Series Capacitive Proximity Sensors

Wiring Diagrams

Diagram 1

NPN Output

```
1  BROWN ──────── L+
4  BLACK
3  BLUE ───────── L−
```

PNP Output

```
1  BROWN ──────── L+
4  BLACK
3  BLUE ───────── L−
```

Dimensions

mm [inches]

Figure 1

TOP   SENSING SIDE

SENSING
AREA

PROGRAM
BUTTONS

48.0
[1.89]

43.7
[1.72]

2X ⌀ 3.2 [0.13]
THRU

13.5
[0.53]

20.0
[0.79]

14.0
[0.55]

4.0
[0.16]

See our website: www.AutomationDirect.com for complete engineering drawings

Capacitive Proximity Sensors - Accessories

Mounting Well

Mounting Adapter

Capacitive Proximity Sensors Accessory Chart

Part Number	Price	Description	Material	Dimensions
Mounting Adapter				
CR1-ADPTR	$4.50	Adapter for CR1 series capacitive sensors	Housing: Polybutylene Terephthalate (PBT) Included Screws: M3 x 6 Steel (0.5 N•m [0.37 lb•ft])	Figure 1
Mounting Wells				
MWT-01	$52.00	30mm [1.18 in] sensor mounting well	PTFE - Polytetrafluoroethylene (Teflon®)	Figure 2
MWK-01	$42.50	18mm [0.71 in] sensor mounting well	Temp: -25 to 246°C [-13 to 474.8°F] Max. pressure: 100 PSI [6.9 bar]	Figure 3

Dimensions

mm [inches]

Figure 1

CR1 Adapter

57.0 [2.24]
32.3 [1.27]
2X 3.2 [0.13] X 18.2 [0.72] SLOT THRU
2X [3.2 [0.13] X 4.2 [0.17] SLOT THRU
10.0 [0.39]
28.0 [1.10]
13.5 [0.53]
27.0 [1.06]
36.0 [1.42]
2X Ø2.5 [Ø0.10] THRU
31.6 [1.24]
13.0 [0.51]
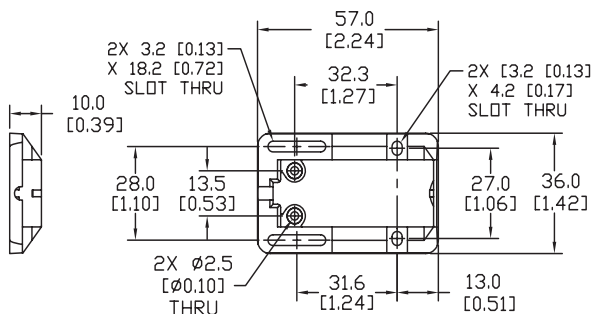
Figure 2

30mm Sensor Mounting Well

Ø50.7 [2.00]
44.3 [1.75]
12.1 [0.48]
1 1/4 NPT
61.7 [2.43]
64.8 [2.55]
Ø37.1 [1.46]
M30 X 1.5 X 1.5 DP
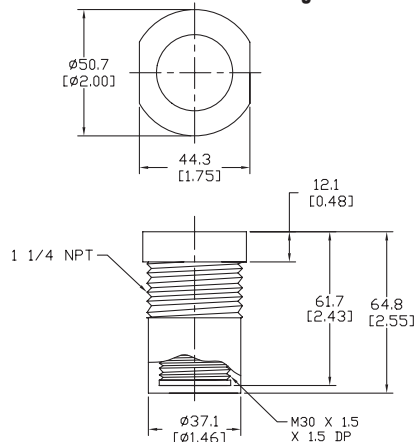
Figure 3

18mm Sensor Mounting Well

Ø38.2 [Ø1.50]
35.0 [1.38]
3/4 NPT
19.1 [0.75]
3/4 NPT
55.6 [2.19]
57.1 [2.25]
M18 X 1
Ø22.9 [Ø0.90]

See our website: www.AutomationDirect.com for complete engineering drawings