

CPA100



Precision Analog Proximity Switch

- Lower Cost
- 0-10 V nonlinear analog output
- Setpoint/Switched output
- Adjustable gain and zero
- Visual range indicator
- Remote gain and zero adjustment connections
- DIN rail case
- Multiple channel sync

Specifications

Resolution ¹ :	CPA100: 0.03% RMS @ 15 kHz CPA100e: 0.4 μ m RMS or higher @ 15 kHz
Bandwidth:	15 kHz
Linearity:	Nonlinear
Maximum Drift:	Driver: 0.2% F.S./°C Probe: 0.05% F.S./°C
Analog Output:	0-10 V, 0 Ω , 15 mA max.
Setpoint:	Fixed at 5 V (mid-range)
Setpoint Output:	Solid state switch closure 30 VAC/60 VDC max On state: 2.5 Ω , 100 mA max Off state leakage: 10 μ A max
Operating Temp.:	4-50 °C
Input Power:	15-24 VDC, 2.5 W

¹Typical at midpoint. Dependent on probe, range, and bandwidth. See next page for details.

Export License

Because of high resolutions, export of the CPA100 to some countries requires an export license.

The CPA100e has different resolution specifications and can ship without an export license.

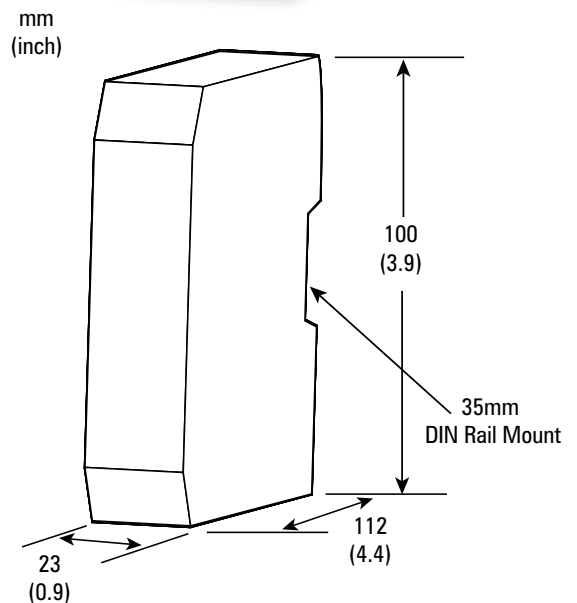
Ranges/Probes

Range is determined by the probe Sensing Area diameter. The larger the diameter, the larger the range.

Sensing Areas are coded by diameter in mm (i.e. 0.8, 13).

Different probe body styles/sizes are available for each sensing area. See "Probes" page for mechanical details.

Flat target surface diameter must be 1.3 times larger than the sensing area diameter.



Standard Probes for use with the CPA100 & CPA100e Capacitive Sensor

Sensing Area Diameter mm	Measurement Range			Midpoint Resolution ¹ @ 15 kHz		Available Body Sizes	
	Range Type	Range μm mils	Near Gap μm mils	CPA100 nm μin	CPA100e nm μin	Models	Body Styles
0.5	Standard	50 2.0	50 2.0	55 2.5	400 16	C3S C3R C5S C5R C5	
	Extended	80 3.0	60 2.4	100 4.0	400 16		
0.8	Standard	100 4.0	100 4.0	55 2.5	400 16	C3S C3R C5S C5R C5	
2.0	Standard	250 10.0	125 5.0	40 1.6	400 16	C5S C5R C5 C8S C8R C8	
	Extended	500 20.0	125 5.0	55 2.5	400 16		
3.2	Standard	500 20.0	250 10	85 3.5	400 16	C8S C8R C8	
	Extended	1250 50.0	250 10	130 5.0	400 16		
5.6	Standard	500 20.0	500 20	140 5.5	400 16	C9.6S C9.6R C9.6 R22	
	Extended	2000 90.0	250 10	170 7.0	800 32		
13	Standard	3200 125	2000 80	1000 40	1000 40	C18	
	Extended	5000 200	3000 120	1600 63	1600 63		
19	Standard	2500 100	5000 200	1400 55	1400 55	R45	
	Extended	6000 250	3000 120	1100 43	1100 43		
21	Standard	8000 300	5000 200	1200 47	1200 47	C25	
	Extended	12500 500	5000 200	1600 63	1600 63		

¹RMS measurement at mid-range at 15 kHz except where noted. P-P measurements are typically 8-10 times higher. The CPA100e does not require an export license.