

CPL190/CPL290

Elite Series



High resolution five-element range indication
Zero adjust
Disable and coarse/fine zero adjust
Front-panel BNC analog output
Differential output to National Instruments 68-pin connector

Specifications

Resolution¹: 0.0005% @100 Hz
 0.003% @ 15 kHz
 Selectable Bandwidth: 100 Hz, 1, 10, 15kHz
 Linearity²: <0.2% F.S. typical
 Max Drift: 0.04% F.S./°C
 Operating Temp: 4-50 °C

Front-Panel BNC: ±10V, 0Ω, 10mA max

Rear-Panel National Inst.: ±10V, 0Ω, Differential

1 Dependent on probe, range, and bandwidth. See next page for details.
 2 Dependent on probe and range. See next page for details.

Listed specifications assume a two meter probe cable;
 Flat measurement area diameter at least 1.3 times larger than
 the Sensing Area diameter with no customizations.

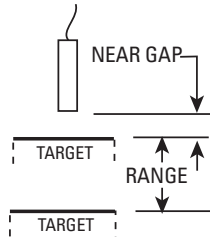
Different probe body styles/sizes are available for each
 Sensing Area.



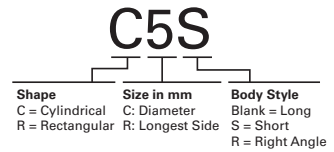
Export License

Because of high resolutions, export of the Elite Series to some
 countries require an export license.





CPL190/290 Probe Measurement Ranges and Resolutions



Sensing Area Diameter mm	Measurement Range			Resolution ¹ @ Bandwidth				Linearity % F.S.	Available Body Sizes	
	Range Type	Range μm mils	Near Gap μm mils	100 Hz nm pin	1 kHz nm pin	10 kHz nm pin	15 kHz nm pin		Models	Body Styles
0.5	Fine	10 0.4	20 0.8	0.06 0.003	0.10 0.004	0.40 0.016	0.50 0.020	0.25	C3S C3R C5S C5R C5	
	Standard	50 2.0	50 2.0	0.30 0.012	0.50 0.020	3.0 0.12	4.0 0.16	0.25		
	Extended	80 3.0	60 2.4	0.50 0.020	1.0 0.040	5.0 0.20	—	0.25		
0.8	Fine	25 1.0	75 3.0	0.20 0.008	0.50 0.020	1.2 0.050	1.5 0.060	0.15	C3S C3R C5S C5R C5	
	Standard	100 4.0	100 4.0	0.50 0.020	1.0 0.040	3.5 0.14	5.0 0.20	0.15		
2.0	Ultrafine	10 0.4	20 0.8	0.05 0.002	0.08 0.003	0.15 0.006	0.25 0.010	0.15	C5S C5R C5 C8S C8R C8	
	Fine	50 2.0	75 3.0	0.20 0.008	0.30 0.012	0.60 0.024	1.0 0.040	0.15		
	Standard	250 10.0	125 5.0	0.8 0.032	1.0 0.040	4.0 0.16	5.0 0.20	0.10		
	Extended	500 20.0	125 5.0	1.5 0.060	3.0 0.12	8.0 0.32	10 0.40	0.15		
3.2	Fine	50 2.0	125 5.0	0.25 0.010	0.4 0.016	1.0 0.042	1.6 0.048	0.20	C8S C8R C8	
	Standard	500 20.0	250 10	2.0 0.08	3.0 0.12	6.0 0.24	10 0.40	0.15		
	Extended	1250 50.0	250 10	10 0.40	15 0.60	20 0.80	30 1.2	0.20		
5.6	Fine	50 2.0	225 9.0	0.3 0.012	0.4 0.016	0.8 0.032	1.3 0.052	0.20	C9.5S C9.5R C9.5 R20	
	Standard	500 20.0	500 20	2.5 0.100	3.0 0.12	7.0 0.28	10 0.40	0.15		
	Extended	2000 80.0	250 10	7.0 0.28	10 0.40	20 0.80	30 1.2	0.20		
13	Fine	2000 80	2000 80	20 0.80	30 1.2	35 1.4	40 1.6	0.50	C18	
	Standard	3200 125	2000 80	30 1.2	40 1.6	50 2.0	60 2.4	0.50		
	Extended	5000 200	3000 120	75 3.0	100 4.0	130 5.2	150 6.0	0.50		
19	Standard	2500 100	5000 200	50 2.0	70 2.8	90 3.6	100 4.0	0.30	R45	
	Extended	6000 250	3000 120	90 3.6	120 4.8	160 6.4	180 7.2	1.0		
21	Standard	8000 300	5000 200	75 3.0	100 4.0	130 5.2	150 6.0	0.50	C25	
	Extended	12500 500	5000 200	130 5.2	180 7.2	230 9.2	250 10	0.50		

¹Resolution values are RMS. Peak-to-peak values are typically 8-10 times greater than the RMS values. In high EMI conditions (10 V/m) output DC level may shift and noise may rise to 0.2 VRMS (1% resolution).