

CAPACITIVE DRIVER

CPL230

Compact, Multi-Channel Driver

- Separate power and signal connectors
- OEM and embedded application
- Small Size, high-density package
- No user adjustments
- $\pm 5V$ single-ended output, $\pm 10V$ differential output



CPL350

Compact, Single-Channel Driver

- OEM and embedded applications
- $\pm 10V$ single-ended
- BNC output
- $\pm 10V$ differential D-Sub output
- No user adjustments
- Small size
- High-density package



Specifications

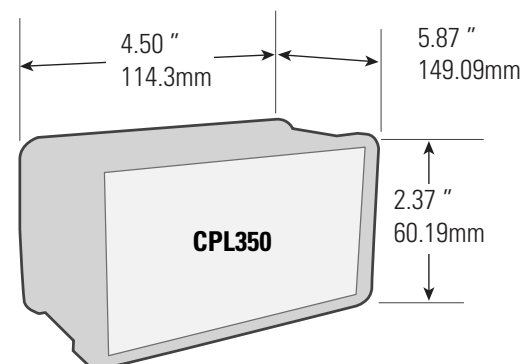
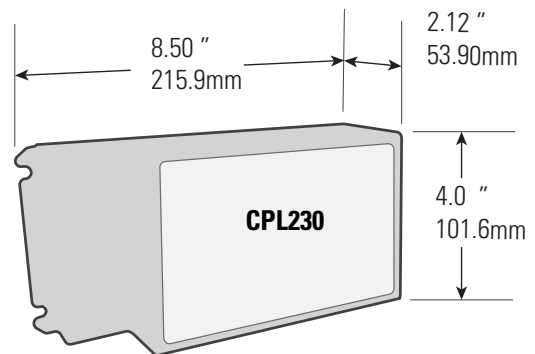
| | |
|----------------------------|---------------------------|
| Resolution ¹ : | 0.0007% @ 100 kHz |
| | 0.004% @ 15 kHz |
| Selectable Bandwidth: | 100 Hz, 1, 10, 15 kHz |
| Linearity ² : | <0.5% F.S. typical |
| Probe Drift: | 0.04% F.S./°C |
| Operating Temp: | 4-50°C |
| Output: | $\pm 10 V$, Differential |
| | $\pm 5 V$, Single-Ended |
| Input Power ³ : | $\pm 15 VDC$, 500 mA max |

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

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

3. External power supply included. 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 with no customizations.



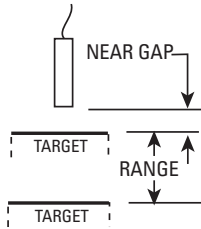
Export License

May require an export license to some countries.

CPL230/350

Probes and Ranges

Sensing Area



CPL230/350

Probe Measurement Ranges and Resolutions

C5S

Shape
C = Cylindrical
R = Rectangular

Size in mm
C: Diameter
R: Longest Side

Body Style
Blank = Long
S = Short
R = Right Angle

| Sensing Area Diameter mm | Measurement Range | | | Resolution ¹ @ Bandwidth | | | | Linearity | Available Body Sizes | |
|--------------------------|-------------------|--------------------------|-----------------------------|-------------------------------------|-------------------------|--------------------------|--------------------------|-----------|--------------------------------------|------------|
| | Range Type | Range μm mils | Near Gap μm mils | 100 Hz nm μin | 1 kHz nm μin | 10 kHz nm μin | 15 kHz nm μin | | Models | Body Sizes |
| 0.5 | Fine | 10 0.4 | 20 0.8 | 0.08 0.003 | 0.14 0.006 | 0.56 0.022 | 0.70 0.028 | 1.0 | C3S C3R C5S C5R C5 | |
| | Standard | 50 2.0 | 50 2.0 | 0.42 0.017 | 0.70 0.028 | 4.2 0.17 | 5.6 0.22 | 0.50 | | |
| | Extended | 80 3.0 | 60 2.4 | 0.70 0.028 | 1.4 0.056 | 7.0 0.28 | — | 0.50 | | |
| 0.8 | Fine | 25 1.0 | 75 3.0 | 0.28 0.011 | 0.70 0.028 | 1.7 0.070 | 2.1 0.084 | 0.50 | C3S C3R C5S C5R C5 | |
| | Standard | 100 4.0 | 100 4.0 | 0.70 0.030 | 1.4 0.056 | 4.9 0.20 | 7.0 0.28 | 0.50 | | |
| 2.0 | Ultrafine | 10 0.4 | 20 0.8 | 0.07 0.003 | 0.11 0.004 | 0.21 0.008 | 0.35 0.014 | 1.0 | C5S C5R C5 C8S C8R C8 | |
| | Fine | 50 2.0 | 75 3.0 | 0.28 0.011 | 0.42 0.017 | 0.84 0.034 | 1.4 0.056 | 0.30 | | |
| | Standard | 250 10.0 | 125 5.0 | 1.1 0.04 | 1.4 0.060 | 5.6 0.22 | 7.0 0.28 | 0.30 | | |
| | Extended | 500 20.0 | 125 5.0 | 2.1 0.084 | 4.2 0.17 | 11 0.44 | 14 0.56 | 0.30 | | |
| 3.2 | Fine | 50 2.0 | 125 5.0 | 0.35 0.014 | 0.56 0.022 | 1.4 0.056 | 2.2 0.073 | 0.30 | C8S C8R C8 | |
| | Standard | 500 20.0 | 250 10 | 2.8 0.11 | 4.2 0.17 | 8.4 0.37 | 14 0.56 | 0.30 | | |
| | Extended | 1250 50.0 | 250 10 | 14 0.56 | 21 0.84 | 28 1.1 | 42 1.7 | 0.30 | | |
| 5.6 | Fine | 50 2.0 | 225 9.0 | 0.42 0.017 | 0.56 0.022 | 1.1 0.44 | 1.8 0.072 | 0.30 | C9.5S C9.5R C9.5 R20 | |
| | Standard | 500 20.0 | 500 20 | 3.5 0.14 | 4.2 0.17 | 9.8 0.39 | 14 0.56 | 0.30 | | |
| | Extended | 2000 80.0 | 250 10 | 9.8 0.39 | 14 0.56 | 28 0.11 | 42 1.7 | 0.30 | | |
| 13 | Fine | 2000 80 | 2000 80 | 28 1.1 | 42 1.7 | 49 2.0 | 56 2.2 | 0.50 | C18 | |
| | Standard | 3200 125 | 2000 80 | 42 1.7 | 56 2.2 | 70 2.8 | 84 3.4 | 0.50 | | |
| | Extended | 5000 200 | 3000 120 | 100 4.0 | 140 5.6 | 180 7.3 | 210 8.4 | 0.50 | | |
| 19 | Standard | 2500 100 | 5000 200 | 70 2.8 | 100 3.9 | 100 5.0 | 140 5.6 | 0.50 | R45 | |
| | Extended | 6000 250 | 3000 120 | 130 5.2 | 170 6.7 | 100 9.0 | 250 10 | 1.0 | | |
| 21 | Standard | 8000 300 | 5000 200 | 100 4.0 | 140 5.6 | 180 7.3 | 210 8.4 | 0.50 | C25 | |
| | Extended | 12500 500 | 5000 200 | 180 7.3 | 250 10 | 320 13 | 350 14 | 0.50 | | |

Resolution 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 (1.3% resolution).