

# CPA101 Capacitive Displacement Sensor

## Precision analog-out proximity and displacement sensor

The CPA101 is an EAR99 compliant version of the CPA100 and does not require an export license because its resolution performance is above  $0.2\mu\text{m}$ .



### Features

- Field Adjustable Gain and Zero
  - Provides application versatility
- Connections for External Gain and Zero Adjustments
  - OEM installations
- Setpoint Switched Output
  - Easy Go/No-Go testing
- Sync Multiple Units
  - Check multiple criteria

### Performance

- Measurement Ranges:
  - 0.05 – 6 mm
- Nonlinear Analog Output
- Resolution:  $0.3\mu\text{m}$  (rms) or higher @ 15 kHz
- Bandwidth: 15 kHz
- Visual Indicator for Easy Setup



Monitor position, displacement, runout, and vibration with this high-performance sensor from Lion Precision — a highly respected noncontact sensor manufacturer since 1958.

[www.lionprecision.com](http://www.lionprecision.com)



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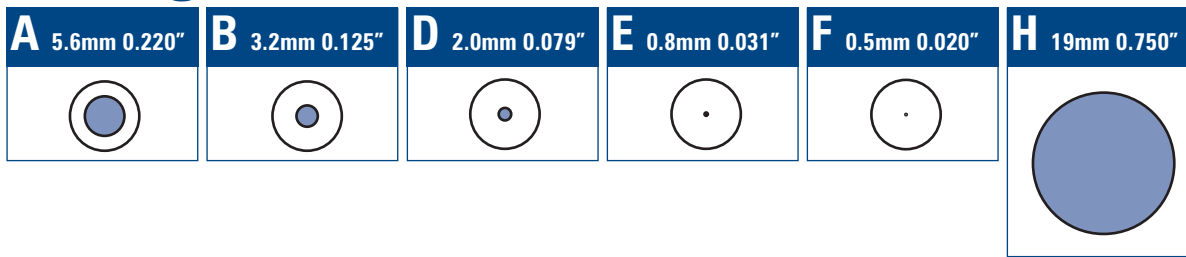
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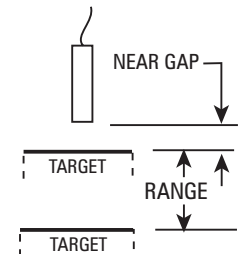
# Sensing Areas (diameters)



## Probes/Ranges

Sensing Area determines Range.

Probes are factory calibrated to Standard Range (Std.) or Extended Range (Ext.).



Model	Diameter		Model	Diameter		Model	Diameter		Model	Diameter	
<b>C1</b>	3/8"		<b>C2</b>	3/8"		<b>C30</b>	8 mm		<b>C36</b>	8 mm	
Sensing Area	Std. Range Near Gap	Ext. Range Near Gap	Sensing Area	Std. Range Near Gap	Ext. Range Near Gap	Sensing Area	Std. Range Near Gap	Ext. Range Near Gap	Sensing Area	Std. Range Near Gap	Ext. Range Near Gap
A	500 $\mu$ m 500 $\mu$ m	2000 $\mu$ m 250 $\mu$ m	A	500 $\mu$ m 500 $\mu$ m	2000 $\mu$ m 250 $\mu$ m	B	500 $\mu$ m 250 $\mu$ m	1250 $\mu$ m 250 $\mu$ m	B	500 $\mu$ m 250 $\mu$ m	1250 $\mu$ m 250 $\mu$ m
						D	250 $\mu$ m 125 $\mu$ m	500 $\mu$ m 125 $\mu$ m	D	250 $\mu$ m 125 $\mu$ m	500 $\mu$ m 125 $\mu$ m
Model	Diameter		Model	Diameter		Model	Diameter		Model	Diameter	
<b>C3</b>	5 mm		<b>C5</b>	5 mm		<b>C6</b>	5 mm		<b>R2</b>	Rectangle	
Sensing Area	Std. Range Near Gap	Ext. Range Near Gap	Sensing Area	Std. Range Near Gap	Ext. Range Near Gap	Sensing Area	Std. Range Near Gap	Ext. Range Near Gap	Sensing Area	Std. Range Near Gap	Ext. Range Near Gap
D	250 $\mu$ m 125 $\mu$ m	500 $\mu$ m 125 $\mu$ m	D	250 $\mu$ m 125 $\mu$ m	500 $\mu$ m 125 $\mu$ m	D	250 $\mu$ m 125 $\mu$ m	500 $\mu$ m 125 $\mu$ m	H	—	6.0 mm 3.0 mm
E <sup>1</sup>	100 $\mu$ m 100 $\mu$ m	—	E <sup>1</sup>	100 $\mu$ m 100 $\mu$ m	—	E <sup>1</sup>	100 $\mu$ m 100 $\mu$ m	—			
F <sup>1</sup>	50 $\mu$ m 50 $\mu$ m	80 $\mu$ m 60 $\mu$ m	F <sup>1</sup>	50 $\mu$ m 50 $\mu$ m	80 $\mu$ m 60 $\mu$ m	F <sup>1</sup>	50 $\mu$ m 50 $\mu$ m	80 $\mu$ m 60 $\mu$ m			

All specifications subject to change without notice.

<sup>1</sup> These sensing areas are limited to 10 kHz bandwidth