



Piezo Actuators

Nanopositioning & Scanning Systems

Active Optics / Steering Mirrors

Tutorial: Piezo-electrics in Positioning

Capacitive Position Sensors

Piezo Drivers & Nanopositioning Controllers

Hexapods / Micropositioning

Photonics Alignment Solutions

Motion Controllers

Ceramic Linear Motors & Stages

Index

Technical Data: Capacitive Sensor Electronics

| Models | E-509.CxA |
|---|---|
| Power supply | ± 15 V |
| Analog output | ± 5 V (0V - 10V) |
| Noise factor* | 0.115 ppm/ $\sqrt{\text{Hz}}$ |
| Bandwidth | 0.3 to 3 kHz, selectable; up to 10 kHz on request |
| Temperature drift* | typ. -30 ppm/K |
| Linearity error (before digital polynomial linearization) | <0.05 % |
| Operating temperature range | -20 to 80 °C |

* Specifications in ppm (parts per million) refer to measuring range

Technical Data: Capacitive Sensors

| Sensor Models | D-015.00 | D-050.00 | D-100.00 | Units |
|-----------------------------|------------|------------|------------|-----------------|
| Material | Aluminum* | Aluminum* | Aluminum* | |
| Active Surface | 16.6 | 67.7 | 113.1 | mm ² |
| Nominal Measuring Distance | 15 | 50 | 100 | μm |
| Extended Measuring Distance | 45 | 150 | 300 | μm |
| Therm. Drift ** | 50 | 50 | 50 | ppm/K |
| Operating temperature range | -20 to +80 | -20 to +80 | -20 to +80 | °C |

* Other materials, measuring ranges and form factors or request.

** Change of the active measuring surface in parts per million as referred to the selected measuring range