

D-04 Displacement Sensor

Basic characteristic

- ▲ D-04 is a universal displacement sensor with a customizable measuring range from 0-100mm.
- ▲ The measuring range can be modified and extended upon the needs of the installation or measurement.
- ▲ D-04 is featuring a novel construction with an optimized compensation design.
- ▲ D-04 can be machined also from special alloys for universal and harsh environments applications (mines, subsea, sewers).



Benefits

- ▲ Direct mountable (can be equipped with spherical polymer bearings)
- ▲ Special design for harsh and demanding environments (mines, sub-sea applications)
- ▲ Customizable cable lengths

Applications

- ▲ Dilatations
- ▲ Settlement measurement
- ▲ Crack monitoring
- ▲ Strain and deformation measurement

Performance properties

| | |
|--|---------------------|
| Displacement range | ±50mm |
| Displacement resolution | 30µm |
| Displacement sensitivity | 70pm/mm |
| Displacement accuracy ¹⁾ | 300µm |
| Displacement precision ²⁾ | ±120µm |
| Operating wavelength Range | 1460-1620nm |
| Operating Temperature range | -20°C to +60°C |
| Number of FBGs | 2 |
| Occupied bandwidth | ~12nm |
| Water ingress protection ³⁾ | IP 67 ³⁾ |

¹⁾ Accuracy is established for each sensor under laboratory conditions and it includes hysteresis, non-linearity, and repeatability of the sensor.

²⁾ Precision is established on a batch basis and it includes hysteresis, non-linearity, repeatability, and reproducibility of the sensor.

³⁾ Can be utilized for marine application and water resistance up to 5bar.

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Physical properties

| | |
|--|-------------------------------|
| Housing material | Stainless steel 1.4404/1.4301 |
| Dimensions (without cable) ¹⁾ | ~ Ø30 x 350mm |
| Weight (without cable) | <500g |
| Cable type | Dyneema reinforced cable Ø3mm |
| Cable length ²⁾ | 1 mtr |
| Cable Bend Radius (dynamic) | 40mm |
| Cable Bend Radius (static) | 30mm |
| Connector type ³⁾ | FC/APC |
| Mounting method | Application-based |

¹⁾ Dimensions can vary depending on measuring range – for further details see the product drawing

²⁾ Cable length is extendable on request

³⁾ Other connector types available on request

Packaging

Cardboard box with dimensions: 370x290x45mm

Quality statement

The sensor is compliant with IEC 61757-1-1:2016/Ed1.0 and IEC 61757:2018

All sensors are 100% tested and calibrated at SYLEX

The sensor is manufactured according to ISO 9001:2008 and ISO 14001:2004

* Specifications are subject to change without notice