



FieldSens

Description

The FieldSens is a multi-channel, multi-purpose signal conditioner to be used with any of our interferometric fiber optic sensors, i.e. the WLPI fiber optic sensors, for temperature, pressure, strain, and position measurements.

At the heart of the FieldSens is our White Light Polarization Interferometry (WLPI) technology (patent # 7,259,862) which provides a mean for making accurate and absolute measurements of the path length difference of any type of interferometric fiber optic sensors, whose difference varies according to the measurand of interest.

The FieldSens is offered in a tabletop version or a wall mount version and comes standard with a LCD screen display*, a RS-232 and RS-485 serial interface outputs. It provides sequential readings over up to 16 measurement channels with a $\pm 0.01\%$ full scale precision.

* Display is not available on the 32-channel model

Use with our WLPI fiber optic sensors • Pressure • Temperature • Strain • Position



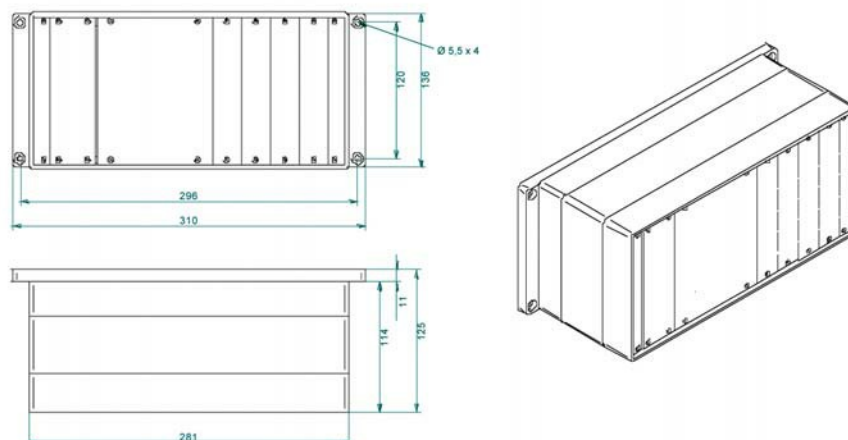
Key features

- Up to 16 measurement channels
- High linearity and precision
- RS-232 and RS-485 serial output
- Tabletop and wall mount versions
- LCD screen display

Applications

- Multi-point long-term monitoring
- In-situ process monitoring
- Civil engineering and geotechnical applications
- High voltage environments
- EMI, RFI and microwave environments
- Nuclear and hazardous environments

■ Dimensions in mm



■ Specifications

| | |
|------------------------|--|
| Number of channels | 4, 8, 12 or 16 |
| Compatibility | All our WLPI fiber optic sensors |
| Full scale | 30 000 nm (path length difference) |
| Resolution | ±0.003 % of F.S. (no averaging) |
| Precision | ±0.01 % of F.S. (@ ±3.3 sigma limit (99.9 % confidence level)) |
| Sampling rate | 20 Hz standard (rate given for a fixed channel) |
| Channel scanning rate | 6.67 Hz maximum (channel-to-channel scan period = 150 ms) |
| Output interface | RS-232 and RS-485 serial output (SCPI protocol) |
| Display | LCD screen display standard Can be ordered without display |
| Input power | 9 to 24 VDC (AD/DC wall-transformer adapter included) |
| Consumption | 2.5 Watt typical |
| Storage temperature | - 40 °C to 70 °C |
| Operating temperature | 0 °C to 45°C |
| Humidity | 95 % non condensing |
| Light source life span | 40 000 hours MTBF |

All specifications are subject to change without prior notifications