



- Compact and rugged design
- Highly versatile with modular design up to 384 channels
- EtherCAT®, Ethernet, USB, RS-232 and CAN FD interfaces
- Can be deployed in outdoor conditions in enclosure
- Support a broad range of sensors
- Modular design enables both WLPI & GaAs technologies on the same system

## FIELDSENS<sup>W</sup> OPSSENS SOLUTIONS' (WLPI) TECHNOLOGY

### DESCRIPTION

The FieldSens<sup>W</sup> is a **compact and robust** multi-channel signal conditioner to be used with any of Opsens Solutions' interferometric fiber optic sensors, i.e. the WLPI fiber optic sensors, for temperature, pressure, strain, and position measurements.

At the heart of the FieldSens<sup>W</sup> is the Opsens Solutions' 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 measure and of interest. The FieldSens<sup>W</sup> is the latest generation of Opsens Solutions' signal conditioners equipped with state-of-the-art technologies. Highly versatile, it supports a broad range of fiber optic sensors and offers measurement **sampling rate up to 250 Hz** (when 1 channel is enabled). Maximum number of modules is 32 with up to 12 channels per module. You can stack modules based on the number of sensors to be monitored (up to a maximum of 384 channels).

The unit offers multiple interfaces for remote control and real-time data acquisition: EtherCAT®, 10/100 Base-T Ethernet, USB, RS-232 and CAN FD. Open interface for easy integration with existing external data acquisition software. An optional portable touchscreen display is also available for stand-alone configurations (useful for on-site maintenance or remote locations). The unit is equipped with internal storage to provide the necessary autonomy in remote locations, years of recording at low acquisition rates.

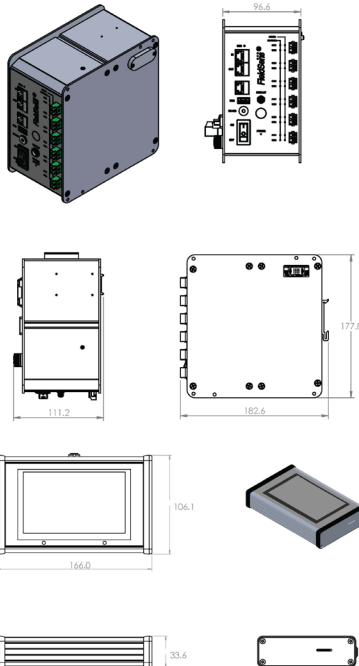
### APPLICATIONS

- Geotechnical applications
- Civil Engineering: monitoring infrastructures
- Industrial: automation and process control
- Portable or benchtop controller
- High voltage conditions
- EMI, RFI and microwave environments
- Hazardous and nuclear environments
- Autonomous monitoring in remote areas

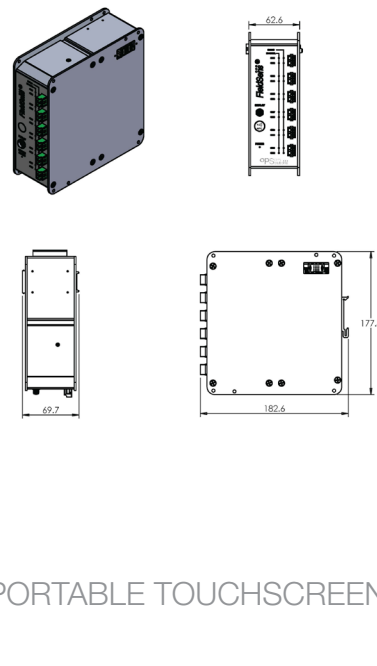
# FIELDSENS<sup>W</sup>

## SIGNAL CONDITIONER FOR (WLPI) TECHNOLOGY

MASTER MODULE



SLAVE MODULE



PORTABLE TOUCHSCREEN DISPLAY

All units are in millimeters

## SPECIFICATIONS

NUMBER OF CHANNELS	4 or 8 or 12 per module - max of 32 modules
SAMPLING RATE	250 Hz (rate given for a fixed channel), switching time 160 ms.
COMMUNICATION INTERFACES	EtherCAT®, Ethernet Interface 10/100 Base-T, USB, RS-232 and CAN FD.
COMMUNICATION PROTOCOL	Modbus TCP, SCPI, UDP, FTP
INPUT VOLTAGE AND FREQUENCY	8 V to 32 V
CONSUMPTION	Max 8W per module
DIMENSION & WEIGHT	177.8 mm (H) x 111.2 mm (W) x 182.6 mm (L) & 1.40 Kg
DIMENSION & WEIGHT (Additional Slave)	177.8 mm (H) x 69.7 mm (W) x 182.6 mm (L) & 0.900 Kg
STORAGE TEMPERATURE	-40 °C to 70 °C
OPERATING TEMPERATURE	-20 °C to 50 °C
HUMIDITY	95 % non condensing
INTERNAL STORAGE	32 Gigabytes per module (16 bytes per measure)
COMPATIBILITY	All Opsens Solutions' WLPI fiber optic sensors
OPTIONAL ACCESSORY	Portable touchscreen display