

PRODUCT DATASHEET

VELOCE 50-100 Signal Conditioner



The VELOCE 50 signal conditioner is an upgradeable, multi-channel, fiber optic signal conditioner, especially designed for applications that require simultaneous reading of a large number of measuring points with fast sampling rates. It is designed to offer the speed and versatility required for the most demanding applications.

With a 200 kHz sampling rate, the VELOCE 50 signal conditioner is the fastest fiber optic signal conditioner available on the market. It is best suited for applications that require dynamic readings and fast response time. This is the ideal instrument when multi-channel, simultaneous measurements and fast data recording is required.

Designed to work with all of FISO's fiber optic sensors, the VELOCE 50 signal conditioner is a general-purpose instrument ideally suited to perform multi-point temperature, pressure, strain, displacement, refractive index, and force and load measurements in a variety of industrial and R&D applications.

Thanks to its unique patented technology, the VELOCE 50 conditioner is a relative measurement instrument that provides highly accurate and reliable measurements.

The VELOCE 50 signal conditioner is compatible with all of FISO's fiber optic sensors, including strain, pressure, temperature, displacement, refractive index, and force and load. FISO's fiber optic sensors offer complete immunity to RF and microwave radiation with high temperature operating capability, and intrinsic safety. The sensors are also designed to withstand harsh and corrosive environments.

The VELOCE 50 signal conditioner comes in a 19-inch industrial rack chassis that can incorporate from one to eight channels. All optical input channels are easily accessible through the modules' front panels. The system scans all the channels simultaneously at a 200 kHz sampling rate. Each channel has its own BNC ± 5 volts analog output and the unit is independently controlled through the RS-232 communication port or, even more easily, thanks to its accompanying software, FISOCOMMANDER BUS/VELOCE Edition.

Key Features

- 1 to 8 simultaneous channels
- Voltage output
- 200 kHz sampling rate
- 19-inch rack chassis
- Upgradeable number of channels
- Compatible with most of FISO's fiber optic sensors

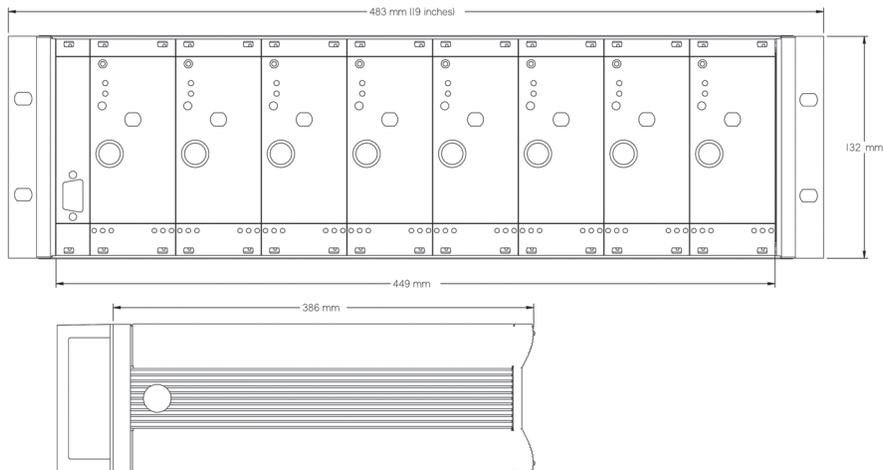
Applications

- Multi-points dynamic measurements
- Laboratory uses
- In-situ process monitoring
- Reciprocating engine cylinder pressure
- New material research
- High voltage and RF fields
- Civil engineering
- Hazardous environments

Specifications

Number of channels	1 to 8
Sampling rate	200 KHz
Averaging	0.005 to 100 ms
Precision	0.3% of full scale
Resolution	0.1% of full scale
Dynamic range	7000 : 1
Analog outputs	±5 V with BNC connector
Communication	RS-232
Upgradeability	Flash ROM firmware
Weight	
Chassis	4.8 kg (10.6 lb)
Module	0.5 kg (1.1 lb)
Dimensions (W × D × H)	448.8 × 326 × 132.5 mm (17.7 × 12.8 × 5.2 in)
Power requirements	
Chassis	29 W
Module	4 W
Operating temperature	15°C to 35°C (59°F to 95°F)

VELOCE 50-100 Dimensions



Drawing Number SCH-00501