

evolution

PRODUCT DATASHEET

General Temperature and Pressure Applications



Application Products

- FOT-L Temperature sensor
- FOP-M Pressure sensor
- FPI-HR module
- EVOLUTION chassis

Key Features

- High accuracy
- Up to 250 Hz sampling rate
- Temperature-compensated modules

Specifications

Sensor

FPI-HR Module

	TEMPERATURE – FOT-L	PRESSURE – FOP-M
Measuring range	-10°C to 120°C	R1: 0 to 5 psi / R2: 0 to 50 psi R3: 0 to 150 psi / R4: 0 to 1000 psi
Temperature operating range	SD: -40°C to 300°C BA: -40°C to 250°C	-20°C to 150°C
Response time ¹	<1.5s	—
Accuracy ²	R4: ±0.25°C / R5: ±0.40°C	±0.5% of full scale
Resolution	0.01°C	0.05% of full scale
Sampling rate	Up to 250 Hz per module	Up to 250 Hz per module
Power consumption	5 Watts	5 Watts
Analog output (Optional)	0 to 5V or 4–20 mA / 16 bits resolution	0 to 5V or 4–20 mA / 16 bits resolution
Operating temperature	10°C to 50°C	10°C to 50°C
Storage temperature	-30°C to 80°C	-30°C to 80°C
Connector	SCAI ³ , SCA (ST optional)	SCAI ³ , SCA (ST optional)
Fiber core size	62.5/125µm (50/125µm optional)	62.5/125µm (50/125µm optional)
Number of channel(s)	1 or 2	1 or 2
Communication / Evolution chassis	USB via EVO chassis / TS 35 DIN RAIL	USB via EVO chassis / TS 35 DIN RAIL
Communication/OEM	RS-232 / RS-485	RS-232 / RS-485
LED sensor signal and communication diagnostic	Yes	Yes

1. Time required to reach 63% of a temperature step.

2. Includes reproducibility (sensor/module exchange), repeatability and hysteresis, non-linearity, scale error, offset error, conditioner temperature compensation error.

Temperature:

Accuracy of ±0.25°C can be achieved using the 25°C to 45°C calibration.

Accuracy of ±0.40°C can be achieved using the -10°C to 120°C calibration.

Pressure:

Accuracy at room temperature.

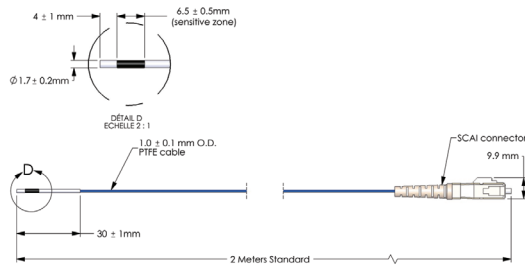
3. SCAI is an SCA connector with smart chip communicating calibration data to signal conditioner module.



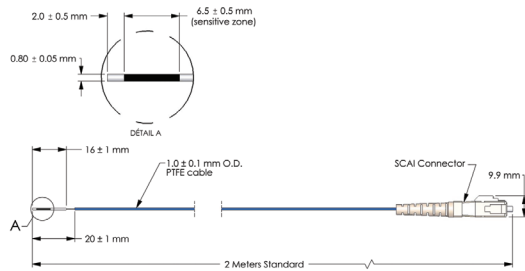
PRELIMINARY

FOT-L Dimensions

FOT-L-SD Model

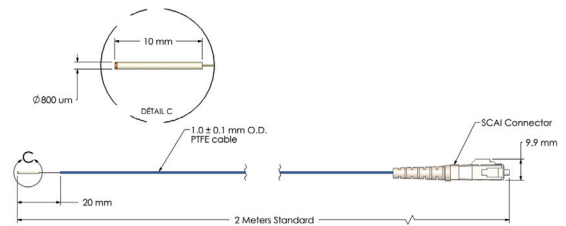


FOT-L-BA Model

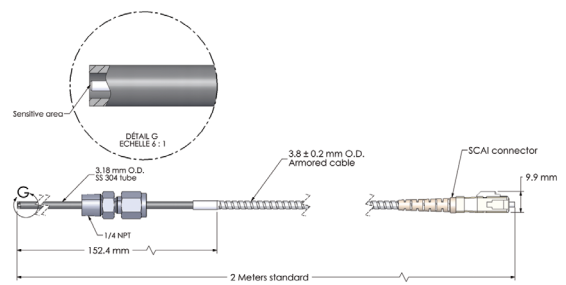


FOP-M Dimensions

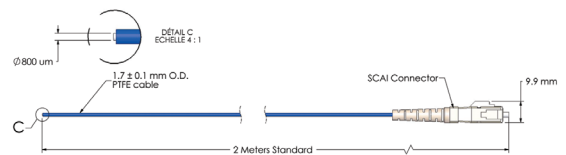
FOP-M-BA Model



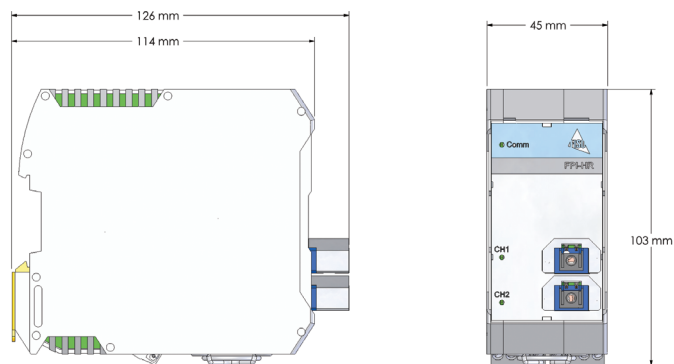
FOP-M-NP Model



FOP-M-PK Model



FPI-HR Module Dimensions



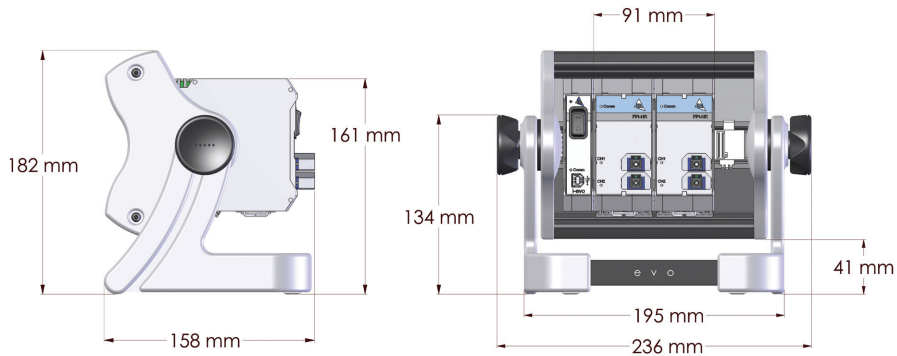
Specifications

Chassis

	EVOLUTION EVO-SD-2	EVOLUTION EVO-SD-5	EVOLUTION EVO-HMI-3 (Coming Soon)	EVOLUTION EVO-RM-8 Rackmount
Display	—	—	LCD WVGA (800 × 480) Touchscreen	—
Communication	USB Expansion RS-485	USB Expansion RS-485	USB Ethernet Gbits Expansion RS-485	USB Expansion RS-485
Data logging memory	Via computer	Via computer	Internal, SD, USB slave	Via computer
Number of modules	Up to 2	Up to 5	Up to 3	Up to 8
Expansion chassis	EVO-SD-5	EVO-SD-5	EVO-SD-5	EVO-RM-8
Power supply	24VDC 70W	24VDC 70W	24VDC 70W	24VDC 70W

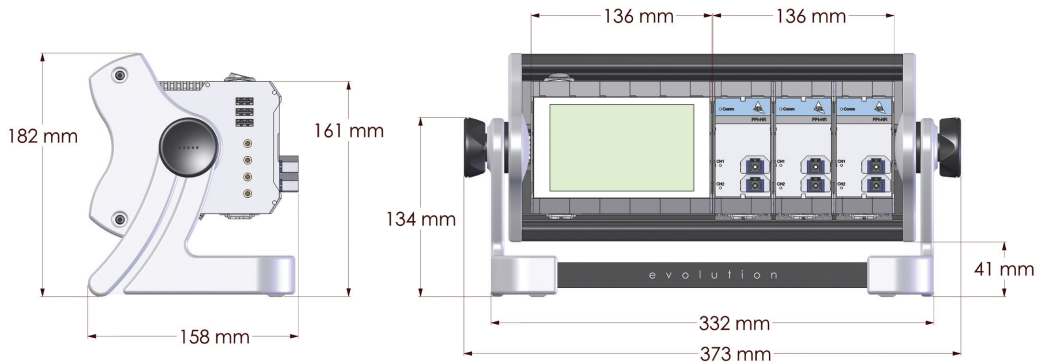
Evolution Chassis Dimensions

EVO-SD-2 Model



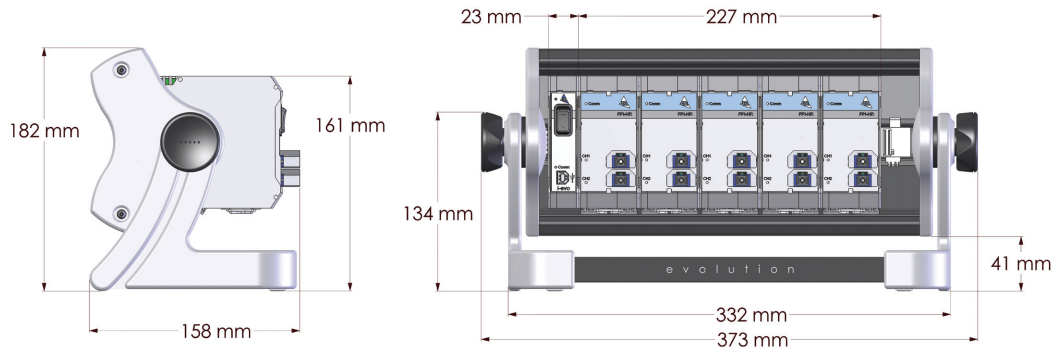
EVO-HMI-3 Model

COMING SOON

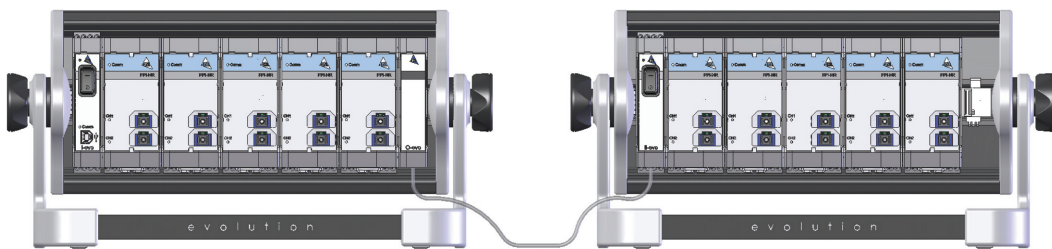


Evolution Chassis Dimensions

EVO-SD-5 Model



EVO-SD-5-EXP-Cable Model



EVO-RM-8 Model

