



Fiber optic pressure OPP-M

0.25 & 0.40 mm od mems-based fiber optic pressure sensor for life science applications

ALTEN
SENSORS & CONTROLS

bar OPP-M

Description

The OPP-M is a MEMS-based fiber optic pressure sensor designed for human and animal physiological pressure measurements.

These miniature 0.25 mm OD and 0.40 mm OD sensors are intended for use in catheters, guidewires or other devices enabling minimally invasive physiology pressure measurement. Its novel patent pending design eliminates moisture-induced drift and minimizes thermal zero shift.

The bare optical pressure sensors are dedicated for company that wishes to performs own in-house sensor packaging unique to their product.

Our new encapsulated OPP-M-P is integration ready. The encapsulation can be done on the sensor tip and/or throughout the whole optical cable in different materials and sizes; customizable according to client specific OEM applications.

The packaged sensor significantly reduces the R&D investment and integration efforts hence minimises the overall cost on implementation and manufacturing processes.

Combined with the WLPI signal conditioning technology (patent # 7,259,862) and with the inherent advantages of fiber optic, the OPP-M addresses the medical industry requirements for long term accuracy, repeatability, low drift and high fidelity pressure measurements under the presence of harsh EM, RF, MR and microwave fields.

Compatible with the WLPI serie LifeSens and OEM-MNP signal conditioners

Key features

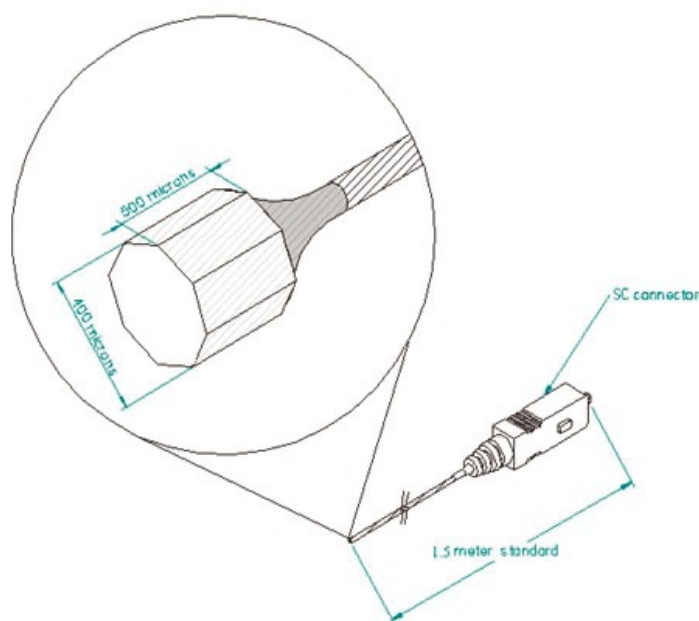
- Ultra miniature
- High fidelity
- Easy catheter integration
- Custom sensor packaging
- EMI/RFI immunity
- MRI safe and compatible
- Low cost

Applications

- Physiological pressure monitoring:
 - Intra vascular blood pressure
 - Urodynamic
 - Intra cranial pressure
 - Intra uterine pressure
 - Intra ocular
 - Intra aortic balloon pumping
- Catheter research, new product development design
- Guidewires design (0.2,5 mm OD model)
- Cardiac assist applications
- Pressure measurement under electro-surgery, MRI and MW/RF related practices



■ Dimensions in mm



■ Specifications

	OPP-M25	OPP-M40
Dimension (mm O.D.)	0,25 mm OD	0,40 mm OD
Pressure range	- 50 mmHg to + 300 mmHg (relative to atmospheric pressure)	
Precision	± 2 mmHg	± 1 mmHg
Resolution	0.5 mmHg	0.2 mmHg
Moisture drift (typical)	< 3 mmHg/28 days	< 4 mmHg/28 days
Thermal coefficient of Zero (typical)	0.3 mmHg per °C	0.15 mmHg per °C
Proof pressure	4000 mmHg	4000 mmHg
Operating temperature	10 °C to 50 °C	
Operating humidity range	0-100%	
EM/RF/MR/MW susceptibility	Complete immunity	
Cable length	1.5 meters standard (Other lengths available)	
Optical connector	SC standard	
Cable sheathing	Customer specifications	
Signal conditioner compatibility	Best suited for MiniP OEM board, LifeSens and ProSens; also compatible with other WLPI signal conditioners	

All specifications are subject to change without prior notifications