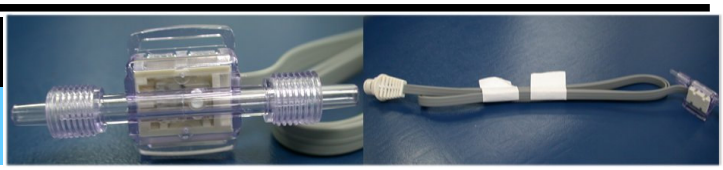
MPS-201G

Value Added Medical Pressure Sensor



Disposable Blood Transducer Male / Male Luer (AAMI Standard)

The MPS-201G pressure sensor is specifically designed to meet the requirements as described in the Association for the Advancement of Medical Instrument (AAMI) specification for Invasive Blood Pressure Transducers.

The sensor consists of a pressure sensing element mounted on a ceramic substrate. Thick-film resistors on the ceramic substrate are laser-trimmed for calibration. A plastic cap is attached to the ceramic substrate to provide protection for the sensor, and to aid in assembly. An opaque dielectric gel is placed over the sensor for electrical and fluid isolation.

Medical grade materials are chosen to ensure compatibility with all medical tests and packaging is designed for automated assembly.

FEATURES

- Low cost
- Top Side Pressure Entry
- Fully Tested and Calibrated
- Dielectric Gel Barrier
- Biomedically Approved Materials

THE MAIN FIELD OF APPLICATIONS

- ✓ Disposable Blood Pressure Monitor
- ✓ Kidney Dialysis Machine
- ✓ Medical Instrumentation
- ✓ Infusion Pumps

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MEMSENZ™ I	MEMSENZ™ II	MEMSENZ™ III	MEMSENZ™ IV
Transduction Principle	Transduction Principle	Transduction Principle	Transduction Principle
Capacitive	Piezoresistive	Resistive	Capacitive
Processing Technology	Processing Technology	Processing Technology	Processing Technology
Bulk/Deep RIE	Bulk/Deep Wet Etch	Surface	Bulk
Actuation Mechanism	Actuation Mechanism	Actuation Mechanism	Actuation Mechanism
Force (External)	Pressure (External)	Thermal	Sound
Signal Condition	Signal Condition	Signal Condition	Signal Condition
Two chips/Single chip	Two chips/Single chip	Two chips	Two chips

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Technical Data

Suitable for ETO sterilization.

Maximum ratings

Specification	Min.	Typ.	Max.	Unit
Operating Temperature	15	-	+45	℃
Storage Temperature	-30	-	70	℃
Over Pressure (note 1)	125	-	-	psi
Supply Voltage	1	6	10	V

Data

Temperature=22±2℃, Relative humidity=45±5%

Specification	Min.	Typ.	Max.	Unit
Operating pressure range	-30	-	300	mmHg
Zero pressure offset voltage (note 1)	-25	0	25	mmHg
Sensitivity	4.95	5	5.05	µV/V/mmHg
Input impedance (note 1)	1800	-	3200	Ω
Output impedance	285	300	315	Ω
Cal factor (150k Ω @ 0mmHg)	97.5	100	102.5	mmHg
Non-linearity (note 2)	0	0.5	1	% span max
Output symmetry	-5	0	5	%
Warm up time	-	5	-	s
Drift time over 4 hrs	-	-	1	mmHg
Temperature coefficient of offset, TCO	-	-	0.1	%/C
Temperature coefficient of sensitivity, TCS	-	-	0.3	mmHg/C
Light sensitivity	-	-	1	mmHg
Defibrillator withstand (360 J/ 5 mins)	5	-	-	-

Notes

1: This parameter may vary from product to product
2: Follows AAMI BP22 accuracy standards
3: Based on the standard for the targeted medical device

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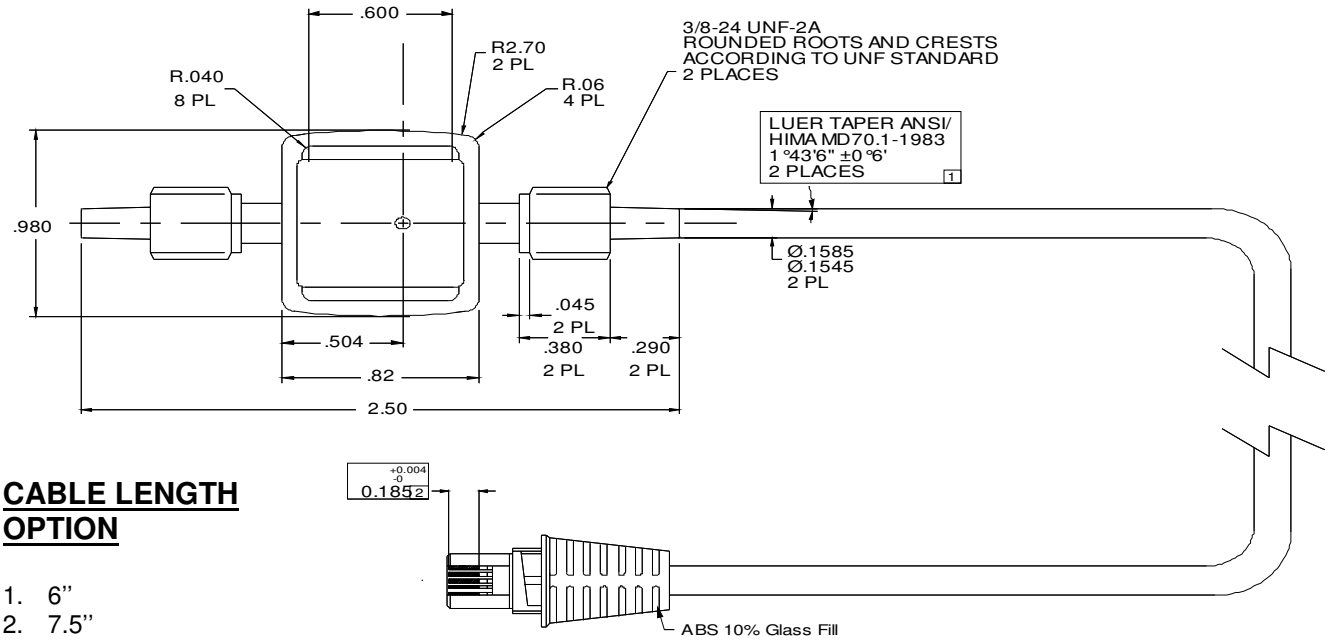
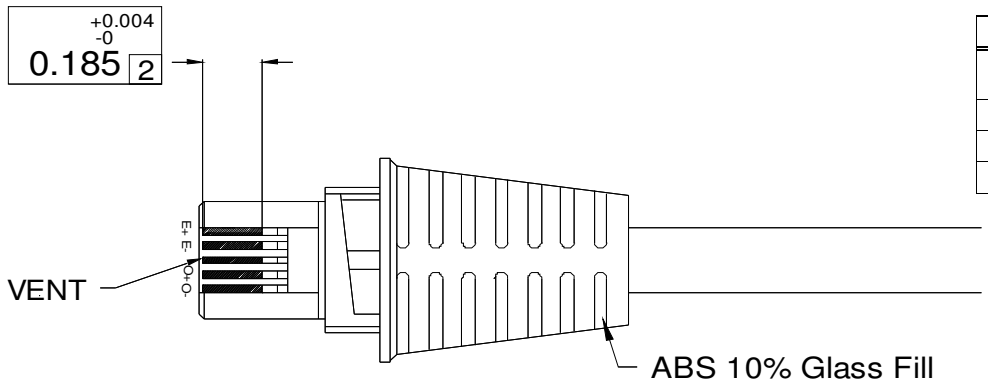
MECHANICAL DIMENSIONS



CABLE LENGTH OPTION

1. 6”
2. 7.5”
3. 14.2”
4. 42’

ELECTRICAL & PIN LAYOUT



Symbol	Description
+E	Supply +
+O	Output +
-O	Output -
-E	Supply +

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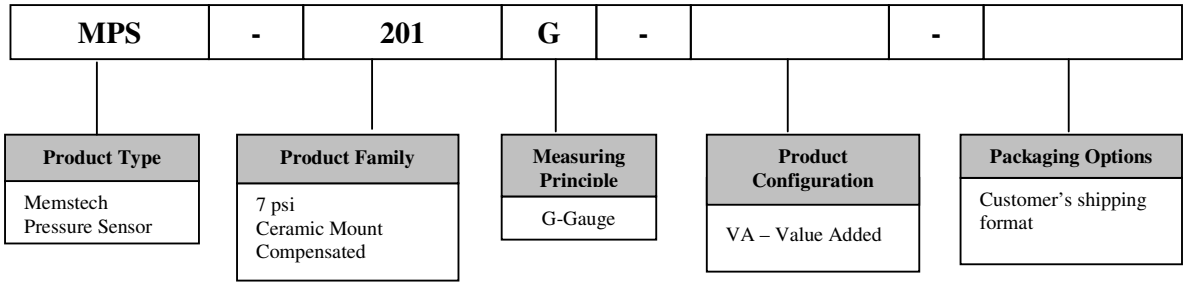
HOW TO SPECIFY PART NUMBER



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