

## 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

MEMSENZ™ I  
 Transduction Principle  
 Capacitive  
 Processing Technology  
 Bulk/Deep RIE  
 Actuation Mechanism  
 Force (External)  
 Signal Condition  
 Two chips/Single chip

MEMSENZ™ II  
 Transduction Principle  
 Piezoresistive  
 Processing Technology  
 Bulk/Deep Wet Etch  
 Actuation Mechanism  
 Pressure (External)  
 Signal Condition  
 Two chips/Single chip

MEMSENZ™ III  
 Transduction Principle  
 Resistive  
 Processing Technology  
 Surface  
 Actuation Mechanism  
 Thermal  
 Signal Condition  
 Two chips

MEMSENZ™ IV  
 Transduction Principle  
 Capacitive  
 Processing Technology  
 Bulk  
 Actuation Mechanism  
 Sound  
 Signal Condition  
 Two chips

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#### Technical Data

Suitable for ETO sterilization.

#### Maximum ratings

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

#### Data

Temperature=22±2°C, 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	-	-	-

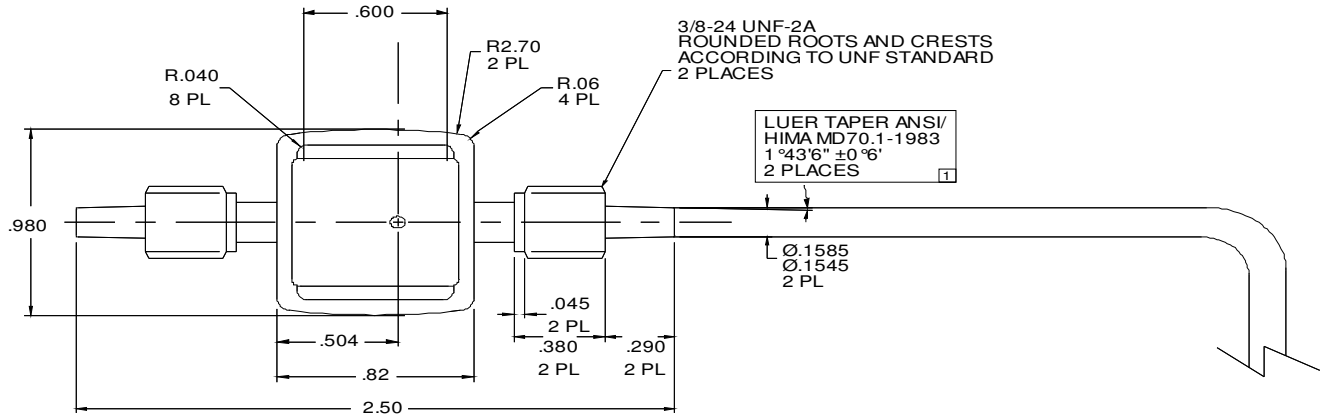
#### Notes

- 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

## MPS-201G

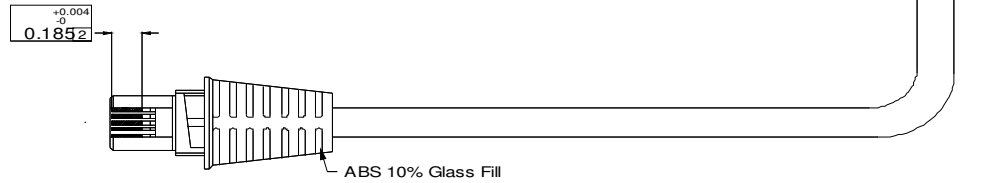
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### MECHANICAL DIMENSIONS

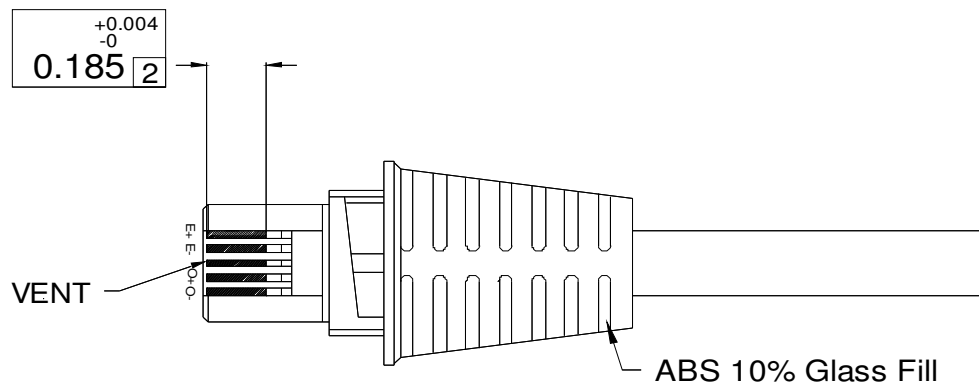


### CABLE LENGTH OPTION

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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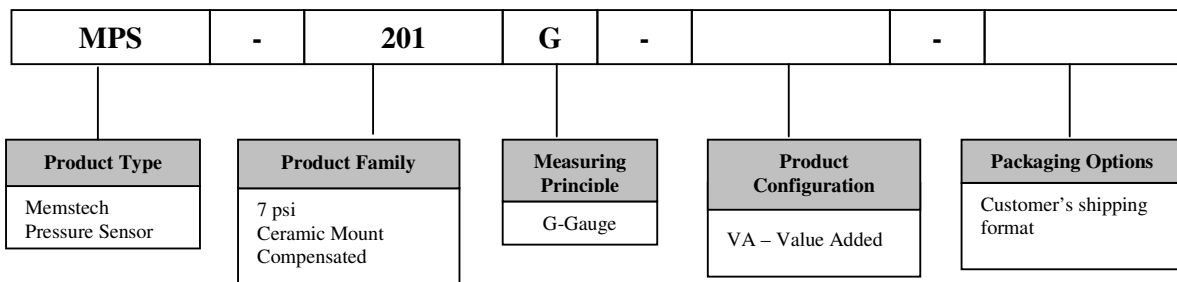
**MEMSENZ™ III**  
 Transduction Principle  
 Resistive  
 Processing Technology  
 Surface  
 Actuation Mechanism  
 Thermal  
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**MEMSENZ™ IV**  
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 Capacitive  
 Processing Technology  
 Bulk  
 Actuation Mechanism  
 Sound  
 Signal Condition  
 Two chips

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### HOW TO SPECIFY PART NUMBER



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