

# MSP1015 Piezoresistive Pressure Transducer

## Characteristics

- 100 and 350KPa Ranges
- Low Profile, 0.76mm thin
- Leadless Package
- Self-contained Hybrid Temperature Compensation
- 500mV Full Scale
- Absolute Reference
- High Frequency Response



Parameter	Unit	MSP1015-100	MSP1015-350
Range	KPa	0 ~ 100	0 ~ 350
Sensitivity	mV/KPa(Typ)	5	1.43
Combined non-linearity, non repeatability, pressure hysteresis	%FSO RSS max	0.5	0.5
Non-linearity	%FSO typ	0.2	0.2
Pressure hysteresis	%FSO typ	0.1	0.1
Non-repeatability	%FSO typ	0.1	0.1
Zero measurand output	mV	±20	±20
Zero shift after 3X range	±% 3XFSO max	0.5	0.5
Thermal zero shift (-20°C ~ 85°C )	%FSO max	±2	±2
Thermal sensitivity shift (-20°C ~ 85°C )	%FSO max	±2	±2
Resonance frequency	KHz	180	320
Non-linearity at 3X range	%3XFSO	1.0	1.0
Warm-up time	ms	1	1
Acceleration sensitivity	KPa/g	0.0014	0.0014
Burst pressure (diaphragm)	KPa min	500	1750
Bridge Resistance	Ω	2500±200	2500±200
Supply voltage	Vdc	10/5	10/5
Temperature	°C	-55 ~ +120	-55 ~ +120

## Typical Applications

- Wind tunnel tests
- High-speed railways

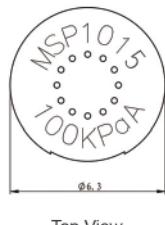
Aerodynamic pressure measurements during flight tests  
Aerospace, automotive, marine and industrial process

Engine control systems

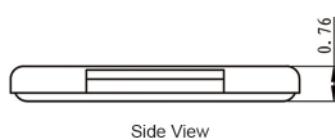
## Remark

1. All values are typical at +25°C, 100Hz and +10Vdc excitation unless otherwise statement.
2. FSO(Full Scale Output) is defined as transducer output change from 0 kPa to +full scale pressure.
3. Warm-up time is defined as elapsed time from excitation voltage "turn on" until the transducer output is within  $1\pm\%$  of reading accuracy.

## Structure (unit: mm)



Top View



Side View

