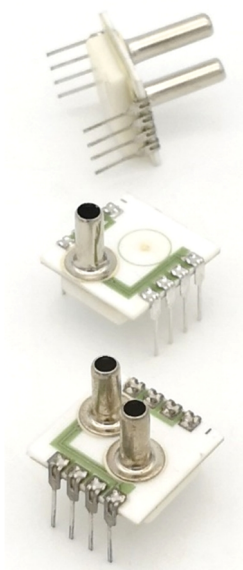


Digital output MEMS pressure sensor



Performance

Pressure range(FS)	1~75 mbar
Accuracy(BFSL typical)	±0.25% FS
Span stability(typical)	±0.5% FS/1000H
Total error band(>5mbar)	±1% FS
Total error band(≤5mbar)	±3% FS
Interface type	I ² C/SPI
Output type(A type)	10%~90%
Output type(B type)	5%~95%
Resolution(14bits)	0.008% FS
Response frequency(typical)	2KHz
Load resistance	>10KΩ

Electrical

Excitation	3.3±0.3Vdc
Supply current(@3.3Vdc typical)	2mA
Excitation	5±0.25Vdc
Supply current(@5Vdc typical)	3mA
Warm up	<7ms
ESD susceptibility	4KV

Environmental

Operation temperature	-40 to 125°C
Compensated temperature	0 to 60°C
Solder temperature	5s Max. at 250°C
Thermal hysteresis	±0.5% FS
Gravity(1g) sensitivity	±0.15% FSO
Pressure cycles	10 million FS cycles
Overload	>2 * FS
Burst pressure(75mbar)	>3 * FS
Burst pressure(<75mbar)	>5 * FS
Vibration	<20 g@10~2000Hz
Shock	<100 g, 11ms pulse
Media	CDA, Non Ionic, Non Corrosive Gases
Cover	Ceramic
Substrate	Ceramic
Sealing	Silicone epoxy
Pressure port	Short/long/No tube
Electrical connection	DIP

Features

- Piezoresistive MEMS element
- I²C or SPI Interface protocols
- ASIC fully calibrated
- Gas and non-corrosive fluids
- Low cost OEM
- Range: 1 to 75 mbar
- Temperature compensated
- Various package
- Small size
- Energy efficient
- Excellent long-term stability
- Industry-leading TEB
- RoHS compliant.

TEB=Total Error Band

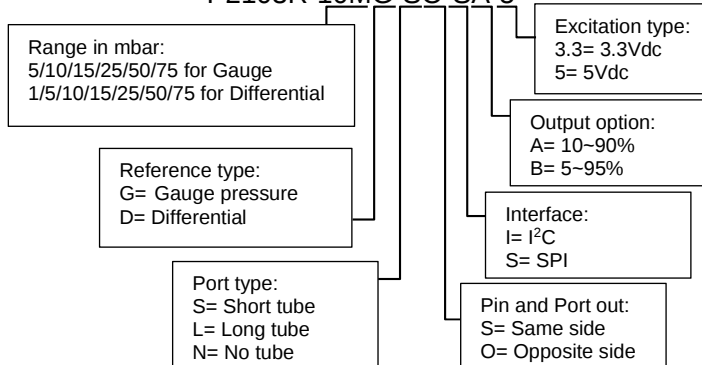
ASIC=Application Specific Integrated Circuit

Application

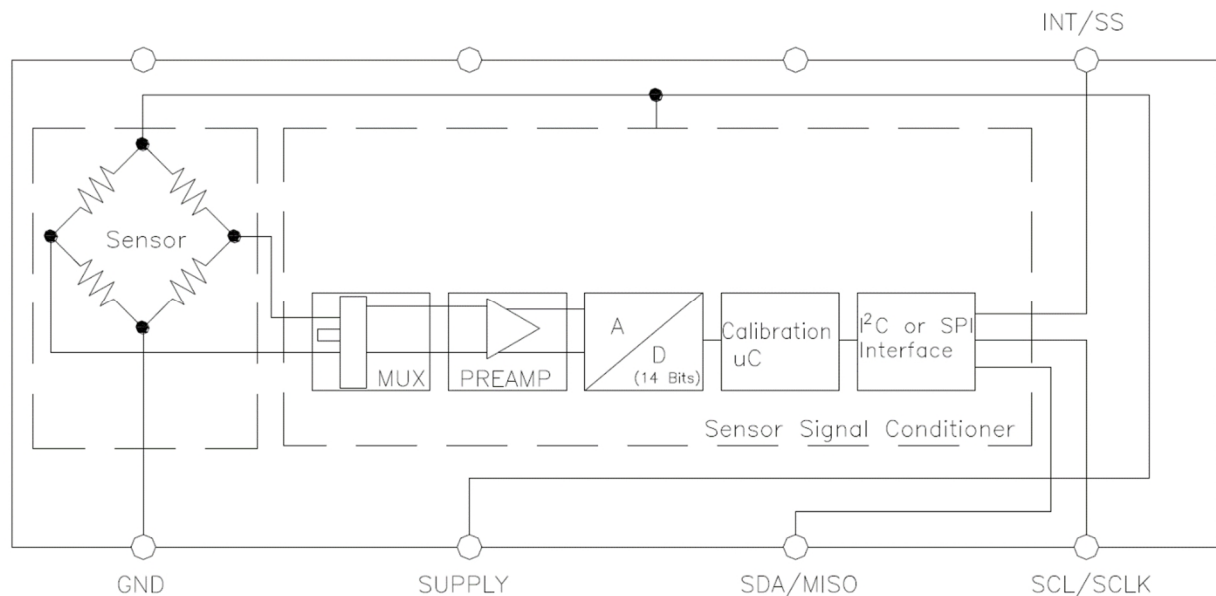
- Pneumatic controls
- Automotive diagnostics
- Medical instrumentation
- Air Speed and Altitude
- Environmental controls
- Barometric pressure
- Factory Automation
- Process Controls

Ordering Information

P2103R-10MG-SO-SA-5



Schematic & Dimension:



PIN	DESCRIPTION
1	NC
2	GROUND
3	NC
4	SERIAL DATA (SDA)
5	SERIAL CLOCK (SCL)
6	NC
7	$V_{exc} = 5.000 \text{ VDC}$
8	ANALOG OUTPUT

NOTES:

- Do **not** connect to NC pins.
- External connections to NC pins will cause part malfunction.

LONG TUBE

SHORT TUBE

NO TUBE

