

Memscap

The MEMSCAP pressure transducers do sustain the high environmental stresses of harsh environments (temperature, shock, vibration, ...) and provide with excellent precision, long term stability and reliability.



MEMSCAP
The Power of a Small World™

www.memscap.com

MEMSCAP®, the high added value MEMS leader, provides innovative products and solutions based on Micro-Electro-Mechanical Systems as well as MEMS contract manufacturing services.

MEMSCAP® mainly addresses 4 market segments: aerospace/defense, optical communications, medical and biomedical, and the IT/consumer market.

● **SP82 Absolute / Differential / Relative Pressure Sensor**

Ultra low long term drift with typical drift values much below 0.02% of Full Scale Output More than 20 years Mean Time Before Failure (MTBF) value.

The basic pressure sensing element of the SP82 is a monolithic silicon chip with a cavity etched out to form a diaphragm, which top side contains implanted piezoresistive elements forming a Wheatstone bridge.

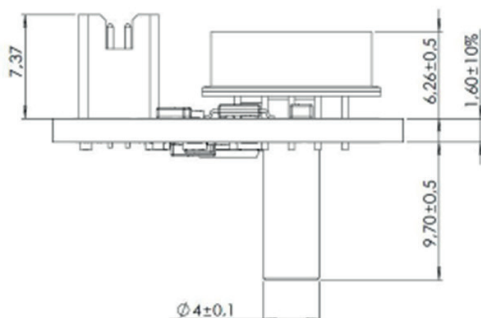
● **TP1200**

The MEMSCAP® TP1000 series digital-output pressure transducer is a fully calibrated, high precision device.

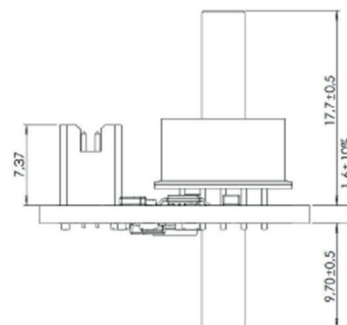
The TP1000 contains a MEMSCAP® SP82 sensor, Analog to Digital Converter (ADC) and Electrically Erasable Programmable Read-Only Memory (EEPROM) with compensation data. Temperature and non-linearity effects need to be externally compensated for by using data stored in the EEPROM.

ABSOLUTE PRESSURE		MEMSCAP PART NUMBER	
Parameter	32074	32073	
Part name	TP1200 001A 00	TP1200 002A 00	
Pressure range [mBar]	35 to 1200	35 to 2600	
Total pressure error [mBar]	±0.3	±0.6	
Total pressure error [mBar] for temperature range -50°C to -55°C	±0.4	±0.7	
Long term stability (at ambient temperature) [mBar/5years]	±0.5	±1.0	
Calibration temperature range [°C]	-55 to +85	-55 to +85	
Storage temperature [°C]	-55 to +85	-55 to +85	
Electrical interface	Samtec TFM-105-11-S-D	Samtec TFM-105-11-S-D	

DIFFERENTIAL PRESSURE		MEMSCAP PART NUMBER		
Parameter	32072	32071	32127	
Part name	TP1200 00D5 00	TP1200 001D 00	TP1200 002D 00	
Pressure range [mBar]	0 - 500	0 - 1000	-10 - 1500	
Total pressure error [mBar]	±0.3	±0.6	±0.37	
Total pressure error [mBar] for temperature range -50°C to -55°C	±0.4	±0.7	±0.5	
Long term stability (at ambient temperature) [mBar/5years]	±0.5	±1.0	±2.0	
Calibration temperature range [°C]	-55 to +85	-55 to +85	-55 to +85	
Storage temperature [°C]	-55 to +85	-55 to +85	-55 to +85	
Electrical interface	Samtec TFM-105-11-S-D	Samtec TFM-105-11-S-D	Samtec TFM-105-11-S-D	



Mechanical dimensions TP1200 absolute transducer in side view (mm)



Mechanical dimensions TP1200 differential transducer in side view (mm)