

Solid State Pressure Sensor

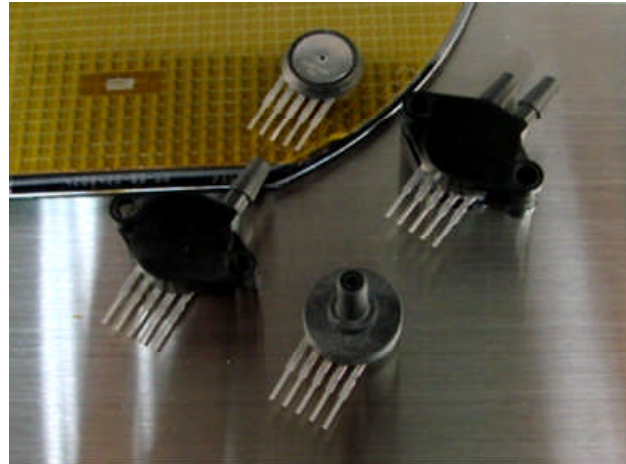
DIGITAL
OUTPUT



MAP Series – Model 36D

FEATURES

- Low Cost Sensor Element
- Calibrated Span and Offset
- Multi-order Temperature Compensation
- 5 PSI to 100 PSI
- Absolute, Gage and Differential Pressures Available



DESCRIPTION

The MAP 36A Series is a smart pressure sensor with an amplified analog output. Compensation of sensor offset, sensitivity, temperature drift and nonlinearity is accomplished in the factory via the latest ASIC technology with calibration coefficients stored in an on-chip EEPROM.

A variety of output configurations, including resolution, sampling rate and voltage levels are available to provide a simple and ready-to-use solution for a wide range of applications. The low voltage version operates from 2.7 to 3.3V while the regular version operates from 4.5 to 5.5V.

The MAP Series including Models 36D and 36A, are available for pressure ranges from 0.3 psi to 100 psi. Custom ranges and calibrations are available. Please contact the factory for details.



Characteristics

Unless otherwise specified, all parameters are measured at 60% RH, 25 °C and 5 Vdc excitation

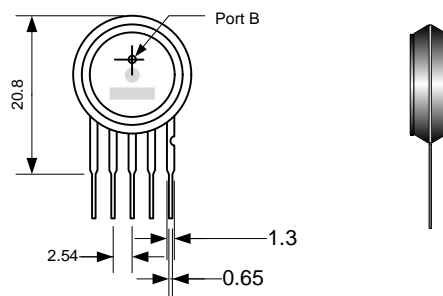
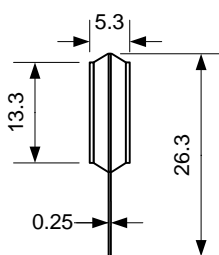
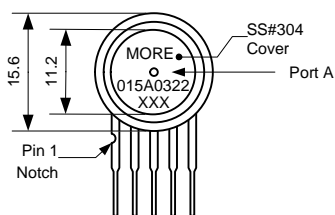
Parameters	Min	Typ	Max	Unit
Supply Voltage ^{NOTE 1}	2.7 to 3.3		4.5 to 5.5	Vdc
Supply Current			2.5	mA
Pressure range ^{Note 5}	5		100	psi
Resolution		14		Bit
Accuracy ^{NOTE 3}		±1.8		%FS, +1 LSB
Zero Output		0666		Hex
Full Scale Output		3996		Hex
Warmup Time ^{NOTE 4}		1	2	sec
Start-Up Time			10	ms
Sampling Rate		1000		Hz
Temp - Compensated	0		50	°C
Temp - Operating	-20		+85	°C
Temp - Storage	-40		+125	°C
Over Pressure			2X	FS

Notes:

1. Specify desired operating voltage range when ordering. Output is ratiometric to supply voltage
2. Wetted materials contain PPA, Silicone gel (Port A) and PPA, RTV, glass and silicon (Port B)
3. Accuracy includes non-linearity, hysteresis, TCS and TCO inside the compensated temperature range, best fit straight line definition
4. Zero fluctuation below 0.15%
5. See ordering guide for list of available pressure ranges

Dimensions

Button (No Port)



Delivery : 15 pcs per tray

Notes:

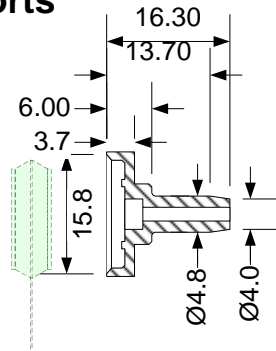
1. Port B is used for positive differential
2. Port A is used for absolute
3. Port B is used for gage
4. All dimensions are in mm
5. Soldering leads max. 250 °C 5s

Pin #	Description
1	N.C.
2	Vdd.
3	Output
4	Vss
5	N.C.

NOTE:
N.C. pins must be left floating
A 0.1µF capacitor must be connected between VDD and VSS



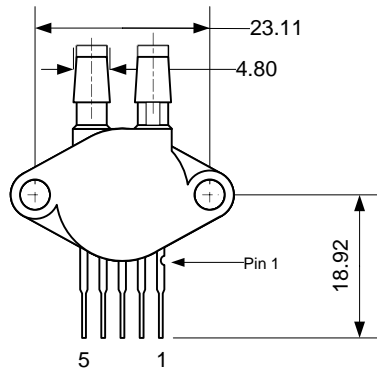
Opposing Ports



Port Options 1,3,5: Either one or both Vertical Port add-ons

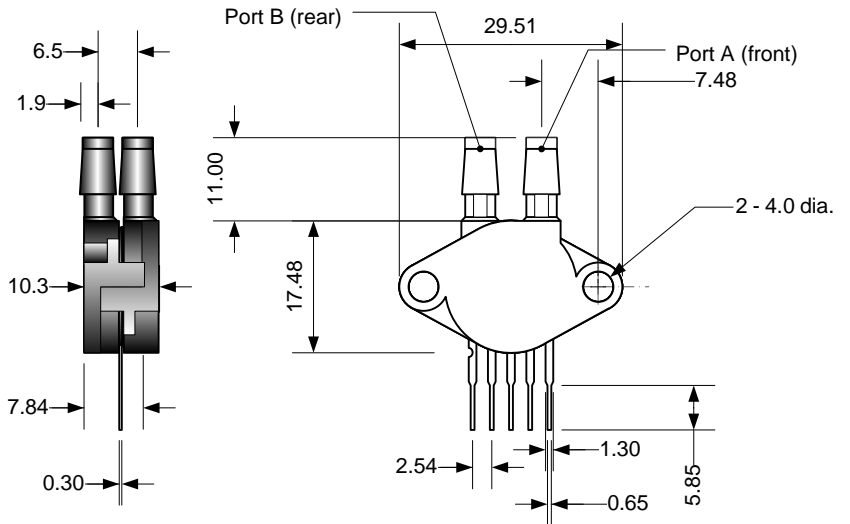
Delivery : 15 pcs per tray

Parallel Ports



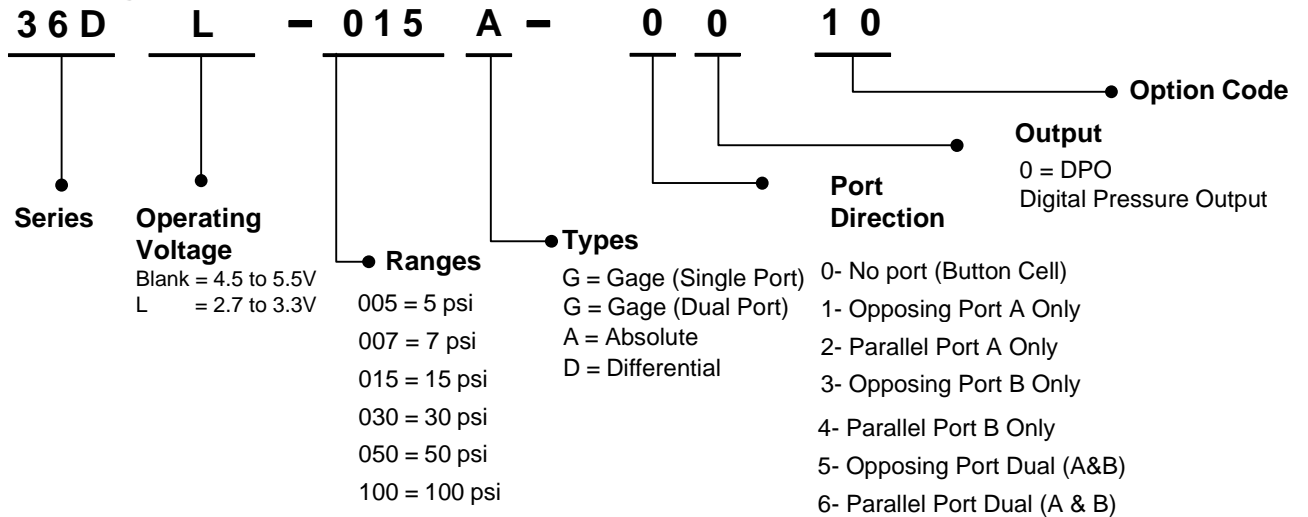
Port Options 2,4,6: Either one or both Horizontal Port add-ons

Delivery : 10 pcs per tray



All dimensions in mm

Ordering Information



Note:

- To specify single ended differential pressure (one side is always more +ve than the other) specify gage pressure with Dual port configuration (pressure type H). The device can be used for differential pressure by simply connecting the reference port (Port B) to the reference pressure instead of atmosphere.
- Specifying Differential pressure means: -xxx psi to +xxx psi where xxx is the specified pressure. Maximum Differential pressure is +/- 30 psi.
- Custom outputs and pressure ranges available. Please contact us with your requirement.
- The minimum absolute pressure that can be specified is 15 psi



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