

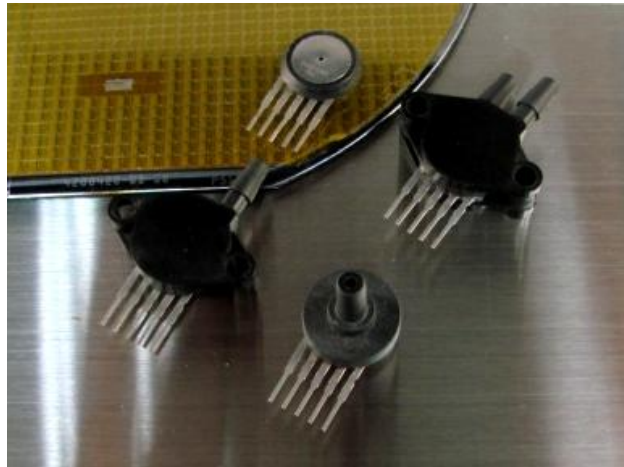
Solid State Pressure Sensor

ANALOG
OUTPUT

MAP Series – Model 36A

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.

Sold in North America By:

Servoflo Corporation

75 Allen Street

Lexington, MA 02421

Tel: 781-862-9572

www.servoflo.com / info@servoflo.com

Characteristics

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

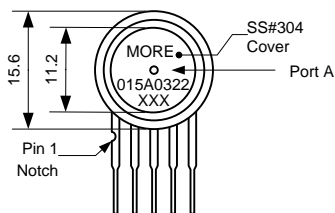
| Parameters | Min | Typ | Max | Unit |
|---------------------------------|------------|-------|------------|------|
| Supply Voltage ^{NOTE1} | 2.7 to 3.3 | | 4.5 to 5.5 | Vdc |
| Supply Current | | | 2.5 | mA |
| Pressure Range ^{NOTE4} | 5 | | 100 | psi |
| Zero Output (Offset) | 0.428 | 0.500 | 0.572 | Vdc |
| Full Scale Output | 4.428 | 4.500 | 4.572 | Vdc |
| Output source current | | | 2.2 | mA |
| Accuracy ^{NOTE2} | | | ±1.8 | %FS |
| Response Time | | 1.0 | 2.0 | ms |
| Over Pressure | | | 2x | FS |
| Temp - Compensated | 0 | | +50 | °C |
| Temp - Operating | -20 | | +85 | °C |
| Temp - Storage | -40 | | +125 | °C |

NOTES:

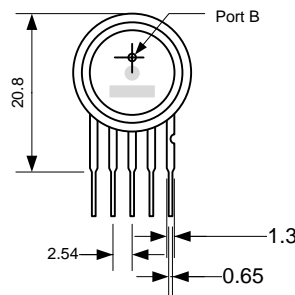
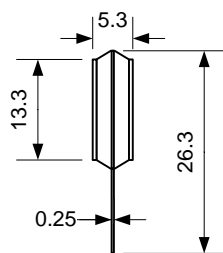
1. Specify desired operating voltage range when ordering. Output is ratiometric to supply voltage
2. Accuracy includes non-linearity, hysteresis, TCS and TCO within the compensated temperature range, best fit straight line definition
3. Wetted materials contain PPA, Silicone gel (Port A) and PPA, RTV,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

Dimensions

Button (No Port)



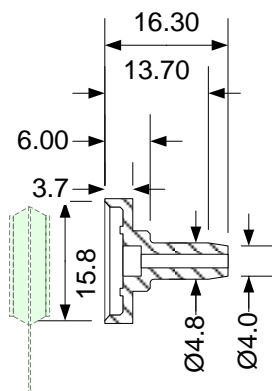
Delivery : 10 pcs per tray



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

Opposing Ports



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

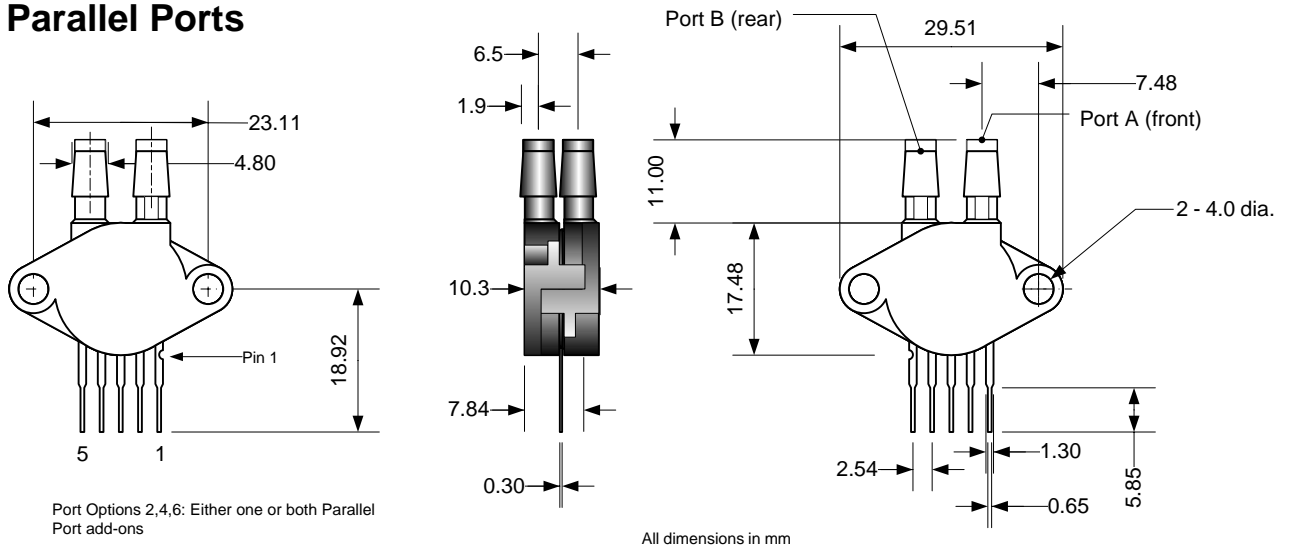
Delivery : 10 pcs per tray

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

NOTE:

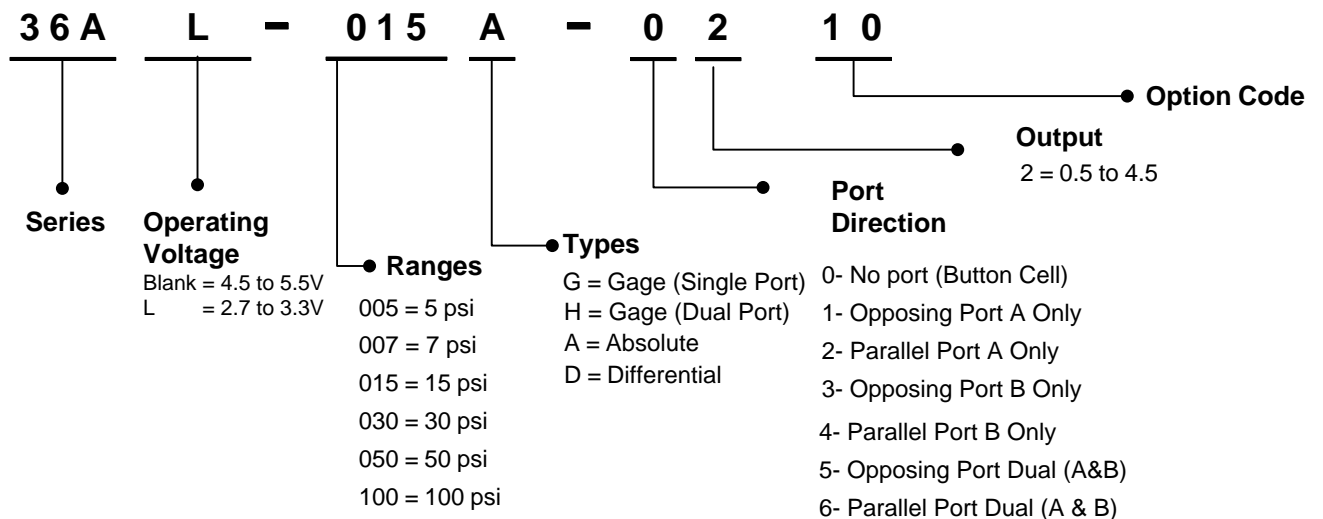
N.C. pins must be left floating
A 0.1uF capacitor must be connected between VDD and VSS

Parallel Ports



Delivery : 10 pcs per tray

Ordering Information



Note:

- 1) 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.
- 2) Specifying Differential pressure means a +/- pressure range.
- 3) Custom outputs and pressure ranges available. Please contact us with your requirement.
- 4) The minimum absolute pressure that can be specified is 15 psi

Example:

Part number 36A 005 D 12 20 corresponds to 2.5V (@ 0 psi) +/- 2V (@ +/- 5 psi)
 Part number 36A 005 G 12 20 corresponds to 0.5V (@ 0 psi) to 4.5V (@ 5 psi) for gage applications only
 Part number 36A 005 G 52 20 corresponds to 0.5V (@ 0 psi) to 4.5V (@ 5 psi) for gage or single ended differential applications

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