

## Board Level Pressure Sensors Digital Output

### 14-Bit, Pressure Sensors

| Product  | Pressure Range                          | Op. Temp. [°C] | Accuracy [%FS] | Total Error [%FS] | Size [mm]    | Typical Application                           |
|--|---|----------------|----------------|-------------------|--------------|---|
| <b>Differential/Gage Pressure, barbed pressure ports, 3.3V or 5V, 3mA, 1.5ms conversion time, I<sup>2</sup>C+SPI interface</b> |   |                |                |                   |              |   |
| MS4515DO   | 2, 4, 5, 10, 20, 30 in H <sub>2</sub> O | -10 to +85     | ±0.25          | ±1.0              | 12.45 x 9.90 | Blocked Filter Detection, Medical Instruments |
| MS4525DO   | 1, 5, 15, 30, 50, 100, 150psi           | -25 to +105    | ±0.25          | ±1.0              | 12.45 x 9.90 | Factory Automation, Medical Instruments       |



### 16-Bit, Ultra Low Power Pressure Sensors

| Product  | Pressure Range    | Op. Temp. [°C] | Resolution [mbar] | Error [mbar] | Size [mm]   | Typical Application                         |
|--|-------------------|----------------|-------------------|--------------|-------------|---|
| <b>Absolute Pressure, 2.2 to 3.6V, 5uA, 35ms conversion time, SPI compatible interface</b> |                   |                |                   |              |             |   |
| MS5534CP   | 10 to 1100mbar    | -40 to +125    | 0.1               | ±1.5         | 9 x 9       | Indoor Barometer/Altimeter                  |
| MS5534CM   | 10 to 1100mbar    | -40 to +125    | 0.1               | ±1.5         | 9 x 9       | Outdoor Barometer/Altimeter                 |
| MS5535C  | 14bar             | -40 to +125    | 1.2               | ±25          | 9 x 9       | Diving Computer 130m                        |
| MS5535-30C   | 30bar             | -40 to +125    | 1.2               | ±25          | 9 x 9       | Diving Computer 300m                        |
| MS5540CM   | 10 to 1100mbar    | -40 to +85     | 0.1               | ±1.5         | 6.2 x 6.4   | Altimeter Watch, Bike Computer              |
| MS5541CM   | 14bar             | -40 to +85     | 1.2               | ±25          | 6.2 x 6.4   | Diving Watch 130m                           |
| MS5561BM   | 1bar              | -40 to +85     | 0.1               | ±1.5         | 4.25 x 4.75 | GPS Altimeter                               |
| <b>Differential/Gage Pressure</b>  |                   |                |                   |              |             |   |
| MS5536-60  | 60mbar            | -40 to +85     | 0.05              | ±1.0         | 10 x 13     | Airspeed Measurement                        |
| MS5536-CPJU  | -400 to +1000mbar | -40 to +85     | 0.1               | ±2.5         | 10 x 13     | CPAP, Sleep Apnea, Airspeed, Blood Pressure |
| MS5536-CNJU  | -1000 to +400mbar | -40 to +85     | 0.1               | ±2.5         | 10 x 13     | CPAP, Sleep Apnea, Airspeed, Blood Pressure |



### 24-Bit, Ultra Low Power Pressure Sensors

| Product   | Pressure Range  | Op. Temp. [°C] | Resolution [mbar] | Error [mbar] | Size [mm]    | Typical Application                           |
|---|---|----------------|-------------------|--------------|--------------|---|
| <b>Absolute Pressure, <u>no gel</u>, 1.8 to 3.6V, 1uA, 0.5 to 8.2ms conversion time, I<sup>2</sup>C+SPI interface, internal clock</b> |   |                |                   |              |              |   |
| MS5607-02BA   | 10 to 1200mbar  | -40 to +85     | 0.024             | ±1.5         | 5 x 3 x 1    | GPS Altimeters, Mobile Phones                 |
| MS5611-01BA   | like MS5607-BP but with double resolution of 0.012mbar, for variometers |                |                   |              |              |   |
| <b>Absolute Pressure, <u>gel-filled</u>, for outdoor products</b>   |   |                |                   |              |              |   |
| MS5803-01BA   | 10 to 1300mbar  |                | 0.012             | ±1.5         |              | Altimeter Watch, Bike Computer                |
| MS5803-02BA   | 10 to 2000mbar  |                | 0.024             | ±3.0         |              | Altimeter Watch, Bike Computer                |
| MS5803-05BA   | 5bar  | -40 to +85     | 0.036             | ±4.5         | 6.2 x 6.4    | Dual Range Altimeter/Diving                   |
| MS5803-14BA   | 14bar   |                | 0.15              | ±20          |              | Diving Watch 130m                             |
| MS5803-30BA   | 30bar   |                | 0.36              | ±50          |              | Diving Watch 300m                             |
| MS5805-02BA   | 10 to 2000mbar  | -40 to +85     | 0.024             | ±3.0         | 4.5 x 4.5    | Miniature Altimeter Watch                     |
| <b>Absolute/Differential Pressure, high resolution</b>  |   |                |                   |              |              |   |
| MS4515HRD   | 2, 4, 5, 10, 20, 30 in H <sub>2</sub> O                                 | -10 to +85     | 0.001 to 0.005    | ±0.1 to ±0.5 | 12.45 x 9.90 | Blocked Filter Detection, Medical Instruments |
| MS4525HRD   | 1, 5, 15, 30, 50, 100, 150psi   | -25 to +105    | 0.005 to 0.15     | ±0.25        | 12.45 x 9.90 | High Precision Medical Instruments            |



## Board Level Pressure Sensors Analog Output

### Amplified & Compensated Output

| Product  | Pressure Range                          | Op. Temp. [°C] | Accuracy [%FS] | Total Error [%FS] | Size [mm]    | Typical Application                           |
|--|---|----------------|----------------|-------------------|--------------|---|
| <b>Differential/Gage Pressure, barbed pressure ports, 3.3V or 5V, 3mA, ratiometric analog output voltage</b> |   |                |                |                   |              |   |
| MS4515   | 2, 4, 5, 10, 20, 30 in H <sub>2</sub> O | -10 to +85     | ±0.25          | ±1.0              | 12.45 x 9.90 | Blocked Filter Detection, Medical Instruments |
| MS4525   | 1, 5, 15, 30, 50, 100, 150psi           | -25 to +105    | ±0.25          | ±1.0              | 12.45 x 9.90 | Factory Automation, Medical Instruments       |



### mV Output

| Product                  | Pressure Range                  | Op. Temp. [°C] | Span [mV/5V]      | Linearity [%FS]        | Size [mm]   | Feature   |
|--------------------------|---------------------------------|----------------|-------------------|------------------------|-------------|---|
| <b>SMD Uncompensated</b> |                                 |                |                   |                        |             |   |
| 1451                     | 5, 15, 30, 50, 100, 250, 500psi | -40 to +125    | 60                | ±0.25                  | 7.6 x 7.6   | Tube, Narrow Hole, Wide Hole                    |
| MS52XX                   | 1, 12bar                        | -40 to +125    | 150<br>240        | ± 0.05<br>± 0.15       | 7.6 x 7.6   | High Linearity, High Sensitivity Option         |
| MS54XX                   | 1, 7, 12bar                     | -40 to +125    | 150<br>240<br>392 | ±0.05<br>±0.15<br>±0.3 | 6.2 x 6.4   | Gel-filled, Waterproof, for Sealing with O-Ring |
| <b>SMD compensated</b>   |                                 |                |                   |                        |             |   |
| 1471                     | 5, 15, 30, 50, 100, 250, 500psi | -40 to +125    | 65                | ±0.25                  | 7.6 x 7.6   | Tube, Narrow Hole, Wide Hole                    |
| <b>DIL compensated</b>   |                                 |                |                   |                        |             |   |
| 1210                     | 5, 10 in H <sub>2</sub> O       | -40 to +125    | 50mV & 100mV      | ±0.1                   | 15.2 x 20.3 | Temperature Compensated                         |
| 1220                     |                                 |                |                   |                        |             | Ultra Stable (1230/40)                          |
| 1230                     |                                 |                |                   |                        |             | Current Ex. (1210/30)                           |
| 1240                     |                                 |                |                   |                        |             | Voltage Ex. (1220/40)                           |



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