

Honeywell

THE POWER OF **CONNECTED**



MicroPressure Board Mount Pressure Sensors

Micropower, Higher Accuracy, Compensated

MicroPressure Board Mount Pressure Sensors, MPR Series

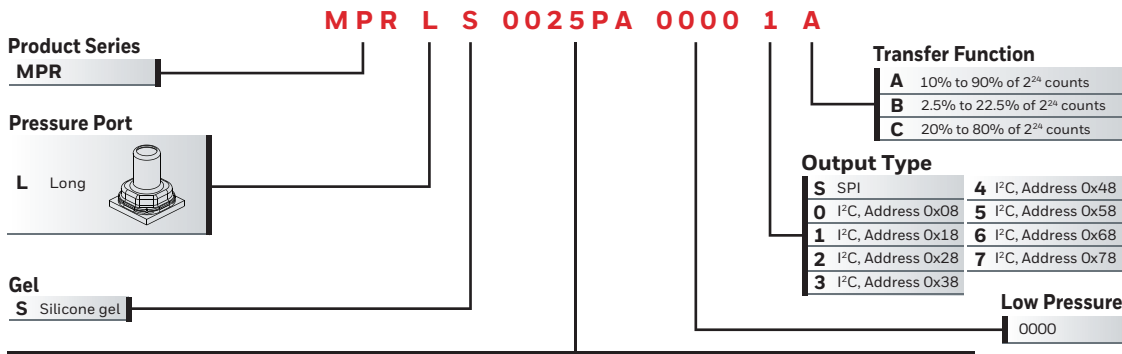
The MicroPressure MPR Series sensors from Honeywell show that big things can come in small packages. Although only 5 mm x 5 mm, the MPR offers multiple options and features that could fit a variety of applications. Available in an assortment of pressure ranges and output types, the calibrated and compensated MPR also features a digital output. This means that you get a system that is not only more reliable but also one that drives down costs by eliminating conversion of analog signals. Often suitable for small, portable applications, the MPR offers different configurations to let you choose the right sensor, with the right performance, at the right price, for your application needs.

SPECIFICATIONS	
Characteristic	Parameter
Supply current, active mode	1.7 mA
Operating temperature range	-40°C to 85°C [-40°F to 185°F]
Compensated temperature range	0°C to 50°C [32°F to 122°F]
Startup time (power up to data ready)	3 ms
Power consumption	<10 mW typ.
Data rate	200 SPS min.
Pull up on MISO, SCLK, CS_ADC, CS_EE, MOSI	1 kOhm
Total Error Band (after autozero)	±1.25 %FSS BFSL
Accuracy	±0.50 %FSS BFSL
Resolution	13.5 bits
Vibration	15 g, 10 Hz to 2 Hz
Shock	100 g, 6 ms duration

Features

- ±40 mbar to ±2.5 bar | ±4 kPa to ±250 kPa | ±0.6 psi to ±30 psi
- 5 mm x 5 mm [0.20 in x 0.20 in] package footprint
- Calibrated and compensated
- IoT (Internet of Things) ready interface
- Low power consumption (<10 mW typ.), energy efficient
- Stainless steel port
- Gel option
- Media compatibility
- Meets IPC/JEDEC J-STD-020D.1 Moisture Sensitivity Level 1
- REACH & RoHS

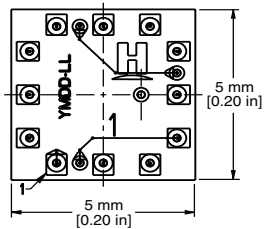
FIGURE 1. PRODUCT NOMENCLATURE FOR APPLICATIONS ABOVE 250,000 UNITS PER YEAR



Applications

- Fluid/liquid media system management
- Gas/air pressure measurement
- Liquid level sensing
- Filter monitors

FIGURE 2. PAD FUNCTIONS



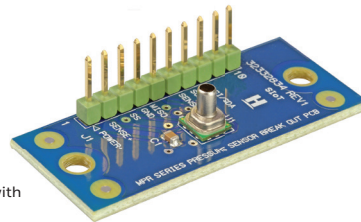
PAD	FUNCTION
1	SS
2	MOSI/SDA
3	SCL/SCLK
4	VO+
5	NC
6	VO-
7	MISO
8	EOC
9	RES
10	VSS
11	NC
12	VD

Pressure Range, Unit and Reference

Absolute			
0001BA	0 bar to 1 bar	0015PA	0 psi to 15 psi
01.6BA	0 bar to 1.6 bar	0025PA	0 psi to 25 psi
02.5BA	0 bar to 2.5 bar	0030PA	0 psi to 30 psi
Gage			
0060MG	0 mbar to 60 mbar	0001PG	0 psi to 1 psi
0100MG	0 mbar to 100 mbar	0005PG	0 psi to 5 psi
0160MG	0 mbar to 160 mbar	0015PG	0 psi to 15 psi
0250MG	0 mbar to 250 mbar	0030PG	0 psi to 30 psi
0400MG	0 bar to 400 mbar		
0600MG	0 bar to 600 mbar		
0001BG	0 bar to 1 bar		
01.6BG	0 bar to 1.6 bar		
02.5BG	0 bar to 2.5 bar		
0100KA	0 kPa to 100 kPa		
0160KA	0 kPa to 160 kPa		
0250KA	0 kPa to 250 kPa		
0040KG	0 kPa to 40 kPa		
0060KG	0 kPa to 60 kPa		
0100KG	0 kPa to 100 kPa		
0160KG	0 kPa to 160 kPa		
0250KG	0 kPa to 250 kPa		
		N	inH ₂ O
		G	MPa
		H	HPa
		C	cmH ₂ O

Other calibration units may be specified.

Gage
0300YG 0 mmHg to 300 mmHg



MPR Series Sensor Mounted on a Breakout Board

Breakout boards, designed for use with the Honeywell SEK002 Sensor Evaluation Kit, are available with the sensor already mounted. Order using the catalog listings in the table below.

Catalog Listing	Description
MPRLS0025PA00001AB	Breakout board with 0 psi to 25 psi absolute sensor, long port, with gel, I ² C = 0x18, transfer function A
MPRLS0015PA0000SAB	Breakout board with 0 psi to 15 psi absolute sensor, long port, with gel, SPI, transfer function A
MPRLS0001PG0000SAB	Breakout board with 0 psi to 1 psi gage sensor, long port, with gel, SPI, transfer function A
MPRLS0300YG00001BB	Breakout board with 0 mmHg to 300 mmHg gage sensor, long port, with gel, I ² C = 0x18, transfer function B

WARNING

PERSONAL INJURY

DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

Failure to comply with these instructions could result in death or serious injury.

WARNING

MISUSE OF DOCUMENTATION

- The information presented in this document is for reference only. Do not use this document as a product installation guide.
- Complete installation, operation, and maintenance information is provided in the instructions supplied with each product.

Failure to comply with these instructions could result in death or serious injury.

Honeywell Sensing and Internet of Things

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