Installation Instructions for the

TruStability™ Board Mount Pressure Sensors

RSC Series—High Resolution, High Accuracy, Compensated
±1.6 mbar to ±10 bar | ±160 Pa to ±1 MPa | ±0.5 inH_2O to ±150 psi
24-bit Digital SPI-Compatible Output

Honeywell

32321347
Issue D

General Information
The RSC Series is a piezoresistive silicon pressure sensor offering a digital output for reading pressure over the specified full scale pressure span and temperature range. It is calibrated and temperature compensated for sensor offset, sensitivity, temperature effects, and non-linearity using a 24-bit analog-to-digital converter with integrated EEPROM. Pressure data may be acquired at rates between 20 and 2000 samples per second over an SPI interface. It is intended for use with non-corrosive, non-ionic gases, such as air and other dry gases, designed and manufactured according to ISO 9001 standards, and is REACH and RoHS compliant.

Table 1. Absolute Maximum Ratings[1]

Characteristic	Min.	Max.	Unit
Supply voltage (V_{supply})	2.7	6.0	Vdc
Voltage on any pin	-0.3	V_{supply} + 0.3	V
Digital interface clock frequency	—	5	MHz
ESD susceptibility (human body model)	—	2	kV
Storage temperature	-40 [-40]	85 [185]	°C [°F]
Soldering time and temperature: lead solder temperature (DIP) peak reflow temperature (SMT)	4 s max. at 250 °C [482 °F] 15 s max. at 250 °C [482 °F]		

[1]Absolute maximum ratings are the extreme limits the device will withstand without damage.

Table 2. Environmental Specifications

Characteristic	Parameter
Humidity (gases only)	0% to 95% RH, non-condensing
Vibration	15 g, 10 Hz to 2 Hz
Shock	100 g, 6 ms duration
Life[1]	1 million pressure cycles minimum
Solder reflow	J-STD-020-D.1 Moisture Sensitivity Level 1 (unlimited shelf life when stored at ≤30 °C/85 % RH)

[1]Life may vary depending on specific application in which the sensor is utilized.

Table 3. Wetted Materials[1]

Component	Port 1 (Pressure Port)	Port 2 (Reference Port)
Ports and covers	high temperature polyamide	high temperature polyamide
Substrate	alumina ceramic	alumina ceramic
Adhesives	epoxy, silicone	epoxy, silicone
Electronic components	plastic, silicon, glass, solder	silicon, glass, gold

[1]Contact Honeywell Customer Service for detailed material information.

Table 4. Sensor Pressure Types

Pressure Type	Description
Absolute	Output is proportional to the difference between applied pressure and a built-in vacuum reference.
Differential	Output is proportional to the difference between the pressures applied to each port (Port 1 – Port 2).
Gage	Output is proportional to the difference between applied pressure and atmospheric (ambient) pressure.

Table 5. Digital Operating Specifications

Characteristic	Min.	Typ.	Max.	Unit
Supply voltage (V_{supply}):[1, 2, 3] pressure ranges ≥60 mbar | 6 kPa | 1 psi: 3.3 Vdc 5.0 Vdc pressure ranges ≤40 mbar | 4 kPa | 20 inH_2O: 3.3 Vdc 5.0 Vdc	 3.0 4.75 3.27 4.95	 3.3 5.0 3.3 5.0	 3.6 5.25 3.33 5.05	Vdc
Supply current: 3.3 Vdc: standby mode active mode 5.0 Vdc: standby mode active mode	 — — — —	 1.3 1.7 2.1 2.6	 — — — —	mA
Operating temperature range[4]	-40 [-40]	—	85 [185]	°C [°F]
Compensated temperature range:[5] medical industrial extended	 0 [32] -20 [-4] -40 [-40]	 — — —	 50 [122] 85 [185] 85 [185]	°C [°F]
Startup time (power up to data ready)	—	—	0.3	ms
Data rate	20, 40, 45, 90, 175, 180, 330, 350, 600, 660, 1000, 1200, 2000			samples per second
SPI voltage level: low high	 — 80	 — —	 20 —	%Vsupply
Pull up on MISO, SCLK, CS_ADC, CS_EE, MOSI	1	—	—	kOhm
Accuracy[6]	—	—	0.1	%FSS BFSL[6]
Orientation sensitivity (±1 g):[7, 9] pressure ranges ≤40 mbar | 4 kPa | 20 inH_2O pressure ranges ≤2.5 mbar | 250 Pa | 1 inH_2O	 — —	 ±0.1 ±0.2	 — —	%FSS[8]

[1]Sensors are either 3.3 Vdc or 5.0 Vdc based on the catalog listing selected.

[2]Ratiometricity of the sensor (the ability of the device output to scale to the supply voltage) is achieved within the specified operating voltage.

[3]The sensor is not reverse polarity protected. Incorrect application of supply voltage or ground to the wrong pin may cause electrical failure.

[4]Operating temperature range: The temperature range over which the sensor will produce an output proportional to pressure.

[5]Compensated temperature range: The temperature range over which the sensor will produce an output proportional to pressure within the specified performance limits (Total Error Band).

[6]Accuracy: The maximum deviation in output from a Best Fit Straight Line (BFSL) fitted to the output measured over the pressure range. Includes all errors due to pressure non-linearity, pressure hysteresis, and non-repeatability.

[7]Orientation sensitivity: The maximum change in offset of the sensor due to a change in position or orientation relative to Earth's gravitational field.

[8]Full Scale Span (FSS): The algebraic difference between the output signal measured at the maximum (Pmax.) and minimum (Pmin.) limits of the pressure range. (See Figure 1 for ranges.)

[9]Insignificant for pressure ranges above 40 mbar | 4 kPa | 20 inH_2O.

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Table 6. Pressure Range Specifications for ±1.6 mbar to ±10 bar

Pressure Range (see Figure 2)	Pressure Range Pmin.	Pressure Range Pmax.	Unit	Working Pressure[1]	Over Pressure[2]	Burst Pressure[3]	Common Mode Pressure[4]	Total Error Band[5] (%FSS)	Total Error Band after Auto-Zero[6] (%FSS)	Long-term Stability 1000 hr, 25°C (%FSS)	Effective Number of Bits (ENOB) at 20 SPS[7]
Absolute											
001BA	0	1	bar	—	2	4	—	±0.75	±0.25	±0.25	16
1.6BA	0	1.6	bar	—	4	8	—	±0.75	±0.25	±0.25	16
2.5BA	0	2.5	bar	—	6	8	—	±0.75	±0.25	±0.25	16
004BA	0	4	bar	—	8	16	—	±0.75	±0.25	±0.25	16
006BA	0	6	bar	—	17	17	—	±0.75	±0.25	±0.25	15
010BA	0	10	bar	—	17	17	—	±0.75	±0.25	±0.25	16
Differential											
1.6MD	-1.6	1.6	mbar	335	675	1000	3450	±3	±0.5	±0.5	16
2.5MD	-2.5	2.5	mbar	335	675	1000	3450	±2	±0.5	±0.35	14
004MD	-4	4	mbar	335	675	1000	3450	±2	±0.5	±0.35	15
006MD	-6	6	mbar	335	675	1000	3450	±2	±0.5	±0.35	16
010MD	-10	10	mbar	375	750	1250	5450	±0.75	±0.25	±0.25	16
016MD	-16	16	mbar	375	750	1250	5450	±1	±0.25	±0.25	17
025MD	-25	25	mbar	435	850	1350	10450	±1	±0.25	±0.25	18
040MD	-40	40	mbar	435	850	1350	10450	±0.75	±0.25	±0.25	15
060MD	-60	60	mbar	—	850	1000	10000	±0.75	±0.25	±0.25	15
100MD	-100	100	mbar	—	1400	2500	10000	±0.75	±0.25	±0.25	15
160MD	-160	160	mbar	—	1400	2500	10000	±0.75	±0.25	±0.25	16
250MD	-250	250	mbar	—	1400	2500	10000	±0.75	±0.25	±0.25	16
400MD	-400	400	mbar	—	2000	4000	10000	±0.75	±0.25	±0.25	15
600MD	-600	600	mbar	—	2000	4000	10000	±0.75	±0.25	±0.25	16
001BD	-1	1	bar	—	4	8	10	±0.75	±0.25	±0.25	16
1.6BD	-1.6	1.6	bar	—	8	16	10	±0.75	±0.25	±0.25	16
2.5BD	-2.5	2.5	bar	—	8	16	10	±0.75	±0.25	±0.25	16
004BD	-4.0	4.0	bar	—	16	17	10	±0.75	±0.25	±0.25	16
006BD	-6	6	bar	—	17	17	17	±0.75	±0.25	±0.25	16
010BD	-10	10	bar	—	17	17	17	±0.75	±0.25	±0.25	17
Gage											
2.5MG	0	2.5	mbar	335	675	1000	3450	±3	±0.5	±0.5	15
004MG	0	4	mbar	335	675	1000	3450	±3	±0.5	±0.5	16
006MG	0	6	mbar	335	675	1000	3450	±2	±0.5	±0.35	15
010MG	0	10	mbar	335	675	1000	3450	±0.75	±0.25	±0.35	15
016MG	0	16	mbar	335	675	1000	3450	±0.75	±0.25	±0.25	16
025MG	0	25	mbar	375	750	1250	5450	±1	±0.25	±0.25	17
040MG	0	40	mbar	375	750	1250	5450	±0.75	±0.25	±0.25	15
060MG	0	60	mbar	—	850	1000	5450	±0.75	±0.25	±0.25	14
100MG	0	100	mbar	—	850	1000	10000	±0.75	±0.25	±0.25	15
160MG	0	160	mbar	—	850	1000	10000	±0.75	±0.25	±0.25	16
250MG	0	250	mbar	—	1400	2500	10000	±0.75	±0.25	±0.25	15
400MG	0	400	mbar	—	2000	4000	10000	±0.75	±0.25	±0.25	14
600MG	0	600	mbar	—	2000	4000	10000	±0.75	±0.25	±0.25	15
001BG	0	1	bar	—	2	4	10	±0.75	±0.25	±0.25	16
1.6BG	0	1.6	bar	—	4	8	10	±0.75	±0.25	±0.25	16
2.5BG	0	2.5	bar	—	8	16	10	±0.75	±0.25	±0.25	15
004BG	0	4	bar	—	8	16	16	±0.75	±0.25	±0.25	16
006BG	0	6	bar	—	17	17	17	±0.75	±0.25	±0.25	15
010BG	0	10	bar	—	17	17	17	±0.75	±0.25	±0.25	16

[1]Working Pressure: The maximum pressure that may be applied to any port of the sensor in continuous use. This pressure may be outside the operating pressure range limits (Pmin. to Pmax.) in which case the sensor may not provide a valid output until presssure is returned to within the operating pressure range. Tested to 1 million cycles, minimum.

[2]Overpressure: The maximum pressure which may safely be applied to the product for it to remain in specification once pressure is returned to the operating pressure range. Exposure to higher pressures may cause permanent damage to the product. Unless otherwise specified this applies to all available pressure ports at any temperature with the operating temperature range.

[3]Burst Pressure: The maximum pressure that may be applied to any port of the product without causing escape of pressure media. Product should not be expected to function after exposure to any pressure beyond the burst pressure.

[4]Common Mode Pressure: The maximum pressure that can be applied simultaneously to both ports of a differential pressure sensor without causing changes in specified performance.

[5]Total Error Band: The maximum deviation from the ideal transfer function over the entire compensated temperature and pressure range. Includes all errors due to offset, full scale span, pressure non-linearity, pressure hysteresis, repeatability, thermal effect on offset, thermal effect on span, and thermal hysteresis (see Figure 1).

[6]Total Error Band after Auto-Zero: The maximum deviation from the ideal transfer function over the entire compensated pressure range for a minimum of 24 hours after an auto-zero operation. Includes all errors due to full scale span, pressure non-linearity, pressure hysteresis, and thermal effect on span.

[7]Effective Number of Bits (ENOB: A measure of the dynamic performance of an analog-to-digital converter (ADC) and its related circuitry. ENOB is defined for the RSC Series per the following equation: ENOB = $\log_2$ (Full Scale Span/Noise).

Table 7. Pressure Range Specifications for ±160 Pa to ±1 MPa

Pressure Range (see Figure 2)	Pressure Range Pmin.	Pressure Range Pmax.	Unit	Working Pressure[1]	Over Pressure[2]	Burst Pressure[3]	Common Mode Pressure[4]	Total Error Band[5] (%FSS)	Total Error Band after Auto-Zero[6] (%FSS)	Long-term Stability 1000 hr, 25°C (%FSS)	Effective Number of Bits (ENOB) at 20 SPS[7]
Absolute											
100KA	0	100	kPa	—	200	400	—	±0.75	±0.25	±0.25	16
160KA	0	160	kPa	—	400	800	—	±0.75	±0.25	±0.25	16
250KA	0	250	kPa	—	600	800	—	±0.75	±0.25	±0.25	16
400KA	0	400	kPa	—	800	1600	—	±0.75	±0.25	±0.25	16
600KA	0	600	kPa	—	1700	1700	—	±0.75	±0.25	±0.25	15
001GA	0	1	MPa	—	1700	1700	—	±0.75	±0.25	±0.25	16
Differential											
160LD	-160	160	Pa	33500	67500	100000	345000	±3	±0.5	±0.5	16
250LD	-250	250	Pa	33500	67500	100000	345000	±2	±0.5	±0.35	14
400LD	-400	400	Pa	33500	67500	100000	345000	±2	±0.5	±0.35	15
600LD	-600	600	Pa	33500	67500	100000	345000	±2	±0.5	±0.35	16
001KD	-1	1	kPa	37.5	75	125	545	±0.75	±0.25	±0.25	16
1.6KD	-1.6	1.6	kPa	37.5	75	125	545	±1	±0.25	±0.25	17
2.5KD	-2.5	2.5	kPa	43.5	85	135	1045	±1	±0.25	±0.25	18
004KD	-4	4	kPa	43.5	85	135	1045	±0.75	±0.25	±0.25	15
006KD	-6	6	kPa	—	85	100	1000	±0.75	±0.25	±0.25	15
010KD	-10	10	kPa	—	140	250	1000	±0.75	±0.25	±0.25	16
016KD	-16	16	kPa	—	140	250	1000	±0.75	±0.25	±0.25	17
025KD	-25	25	kPa	—	140	250	1000	±0.75	±0.25	±0.25	16
040KD	-40	40	kPa	—	200	400	1000	±0.75	±0.25	±0.25	17
060KD	-60	60	kPa	—	200	400	1000	±0.75	±0.25	±0.25	16
100KD	-100	100	kPa	—	400	800	1000	±0.75	±0.25	±0.25	16
160KD	-160	160	kPa	—	800	1600	1000	±0.75	±0.25	±0.25	16
250KD	-250	250	kPa	—	800	1600	1000	±0.75	±0.25	±0.25	16
400KD	-400	400	kPa	—	1600	1700	1000	±0.75	±0.25	±0.25	16
600KD	-600	600	kPa	—	1700	1700	1700	±0.75	±0.25	±0.25	16
001GD	-1	1	MPa	—	1.7	1.7	1.7	±0.75	±0.25	±0.25	17
Gage											
250LG	0	250	Pa	33500	67500	100000	345000	±3	±0.5	±0.5	15
400LG	0	400	Pa	33500	67500	100000	345000	±3	±0.5	±0.5	16
600LG	0	600	Pa	33500	67500	100000	345000	±2	±0.5	±0.35	15
001KG	0	1	kPa	33.5	67.5	100	345	±0.75	±0.25	±0.35	15
1.6KG	0	1.6	kPa	33.5	67.5	100	345	±0.75	±0.25	±0.25	16
2.5KG	0	2.5	kPa	37.5	75	125	545	±1	±0.25	±0.25	17
004KG	0	4	kPa	37.5	75	125	545	±0.75	±0.25	±0.25	15
006KG	0	6	kPa	—	85	100	545	±0.75	±0.25	±0.25	14
010KG	0	10	kPa	—	85	100	1000	±0.75	±0.25	±0.25	15
016KG	0	16	kPa	—	85	100	1000	±0.75	±0.25	±0.25	16
025KG	0	25	kPa	—	140	250	1000	±0.75	±0.25	±0.25	15
040KG	0	40	kPa	—	200	400	1000	±0.75	±0.25	±0.25	14
060KG	0	60	kPa	—	200	400	1000	±0.75	±0.25	±0.25	15
100KG	0	100	kPa	—	200	400	1000	±0.75	±0.25	±0.25	16
160KG	0	160	kPa	—	400	800	1000	±0.75	±0.25	±0.25	16
250KG	0	250	kPa	—	800	1600	1000	±0.75	±0.25	±0.25	15
400KG	0	400	kPa	—	800	1600	1600	±0.75	±0.25	±0.25	16
600KG	0	600	kPa	—	1700	1700	1700	±0.75	±0.25	±0.25	15
001GG	0	1	MPa	—	1.7	1.7	1.7	±0.75	±0.25	±0.25	16

[1]Working Pressure: The maximum pressure that may be applied to any port of the sensor in continuous use. This pressure may be outside the operating pressure range limits (Pmin. to Pmax.) in which case the sensor may not provide a valid output until presssure is returned to within the operating pressure range. Tested to 1 million cycles, minimum.

[2]Overpressure: The maximum pressure which may safely be applied to the product for it to remain in specification once pressure is returned to the operating pressure range. Exposure to higher pressures may cause permanent damage to the product. Unless otherwise specified this applies to all available pressure ports at any temperature with the operating temperature range.

[3]Burst Pressure: The maximum pressure that may be applied to any port of the product without causing escape of pressure media. Product should not be expected to function after exposure to any pressure beyond the burst pressure.

[4]Common Mode Pressure: The maximum pressure that can be applied simultaneously to both ports of a differential pressure sensor without causing changes in specified performance.

[5]Total Error Band: The maximum deviation from the ideal transfer function over the entire compensated temperature and pressure range. Includes all errors due to offset, full scale span, pressure non-linearity, pressure hysteresis, repeatability, thermal effect on offset, thermal effect on span, and thermal hysteresis (see Figure 1).

[6]Total Error Band after Auto-Zero: The maximum deviation from the ideal transfer function over the entire compensated pressure range for a minimum of 24 hours after an auto-zero operation. Includes all errors due to full scale span, pressure non-linearity, pressure hysteresis, and thermal effect on span.

[7]Effective Number of Bits (ENOB): A measure of the dynamic performance of an analog-to-digital converter (ADC) and its related circuitry. ENOB is defined for the RSC Series per the following equation: ENOB = $\log_2$ (Full Scale Span/Noise).

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Table 8. Pressure Range Specifications for ±0.5 inH_2O to ±150 psi

Pressure Range (see Figure 2)	Pressure Range Pmin.	Pressure Range Pmax.	Unit	Working Pressure[1]	Over Pressure[2]	Burst Pressure[3]	Common Mode Pressure[4]	Total Error Band[5] (%FSS)	Total Error Band after Auto-Zero[6] (%FSS)	Long-term Stability 1000 hr, 25°C (%FSS)	Effective Number of Bits (ENOB) at 20 SPS[7]
Absolute											
015PA	0	15	psi	—	30	60	—	±0.75	±0.25	±0.25	16
030PA	0	30	psi	—	60	120	—	±0.75	±0.25	±0.25	16
060PA	0	60	psi	—	120	240	—	±0.75	±0.25	±0.25	16
100PA	0	100	psi	—	250	250	—	±0.75	±0.25	±0.25	16
150PA	0	150	psi	—	250	250	—	±0.75	±0.25	±0.25	16
Differential											
0.5ND	-0.5	0.5	inH_2O	135	270	415	1400	±3	±0.5	±0.5	16
001ND	-1	1	inH_2O	135	270	415	1400	±2	±0.5	±0.35	15
002ND	-2	2	inH_2O	135	270	415	1400	±2	±0.5	±0.35	16
004ND	-4	4	inH_2O	150	300	500	2200	±0.75	±0.25	±0.25	17
005ND	-5	5	inH_2O	150	300	500	2200	±1	±0.5	±0.25	19
010ND	-10	10	inH_2O	175	350	550	4200	±1	±0.25	±0.25	19
020ND	-20	20	inH_2O	175	350	550	4200	±0.75	±0.25	±0.25	16
030ND	-30	30	inH_2O	175	350	550	4200	±0.75	±0.25	±0.25	16
001PD	-1	1	psi	—	10	15	150	±0.75	±0.25	±0.25	15
005PD	-5	5	psi	—	30	40	150	±0.75	±0.25	±0.25	17
015PD	-15	15	psi	—	60	120	150	±0.75	±0.25	±0.25	17
030PD	-30	30	psi	—	120	240	150	±0.75	±0.25	±0.25	17
060PD	-60	60	psi	—	250	250	250	±0.75	±0.25	±0.25	17
100PD	-100	100	psi	—	250	250	250	±0.75	±0.25	±0.25	17
150PD	-150	150	psi	—	250	250	250	±0.75	±0.25	±0.25	17
Gage											
001NG	0	1	inH_2O	135	270	415	1400	±3	±0.5	±0.5	16
002NG	0	2	inH_2O	135	270	415	1400	±2	±0.5	±0.35	15
004NG	0	4	inH_2O	135	270	415	1400	±0.75	±0.25	±0.35	16
005NG	0	5	inH_2O	135	270	415	1400	±0.75	±0.25	±0.25	16
010NG	0	10	inH_2O	150	300	500	2200	±1	±0.25	±0.25	18
020NG	0	20	inH_2O	175	350	550	4200	±0.75	±0.25	±0.25	15
030NG	0	30	inH_2O	175	350	550	4200	±0.75	±0.25	±0.25	15
001PG	0	1	psi	—	10	15	150	±0.75	±0.25	±0.25	14
005PG	0	5	psi	—	30	40	150	±0.75	±0.25	±0.25	16
015PG	0	15	psi	—	30	60	150	±0.75	±0.25	±0.25	16
030PG	0	30	psi	—	60	120	150	±0.75	±0.25	±0.25	16
060PG	0	60	psi	—	120	240	250	±0.75	±0.25	±0.25	16
100PG	0	100	psi	—	250	250	250	±0.75	±0.25	±0.25	16
150PG	0	150	psi	—	250	250	250	±0.75	±0.25	±0.25	16

[1]Working Pressure: The maximum pressure that may be applied to any port of the sensor in continuous use. This pressure may be outside the operating pressure range limits (Pmin. to Pmax.) in which case the sensor may not provide a valid output until presssure is returned to within the operating pressure range. Tested to 1 million cycles, minimum.

[2]Overpressure: The maximum pressure which may safely be applied to the product for it to remain in specification once pressure is returned to the operating pressure range. Exposure to higher pressures may cause permanent damage to the product. Unless otherwise specified this applies to all available pressure ports at any temperature with the operating temperature range.

[3]Burst Pressure: The maximum pressure that may be applied to any port of the product without causing escape of pressure media. Product should not be expected to function after exposure to any pressure beyond the burst pressure.

[4]Common Mode Pressure: The maximum pressure that can be applied simultaneously to both ports of a differential pressure sensor without causing changes in specified performance.

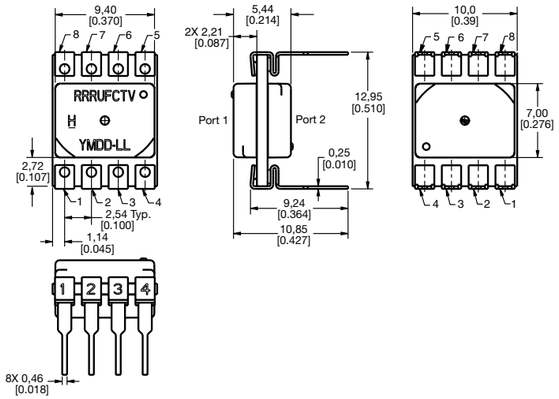
[5]Total Error Band: The maximum deviation from the ideal transfer function over the entire compensated temperature and pressure range. Includes all errors due to offset, full scale span, pressure non-linearity, pressure hysteresis, repeatability, thermal effect on offset, thermal effect on span, and thermal hysteresis (see Figure 1).

[6]Total Error Band after Auto-Zero: The maximum deviation from the ideal transfer function over the entire compensated pressure range for a minimum of 24 hours after an auto-zero operation. Includes all errors due to full scale span, pressure non-linearity, pressure hysteresis, and thermal effect on span.

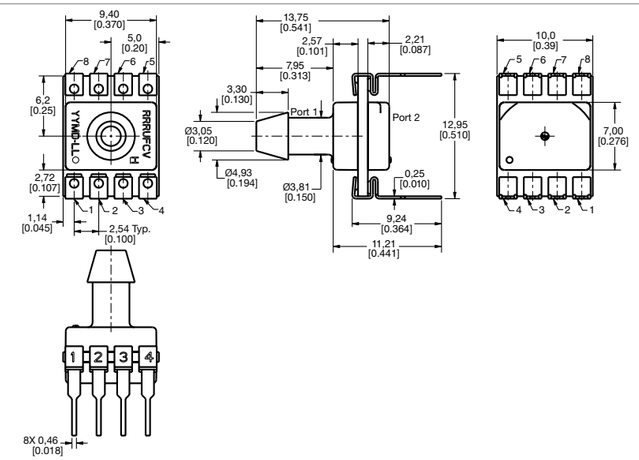
[7]Effective Number of Bits (ENOB): A measure of the dynamic performance of an analog-to-digital converter (ADC) and its related circuitry. ENOB is defined for the RSC Series per the following equation: ENOB = $\log_2$ (Full Scale Span/Noise).

Figure 3. DIP Package Dimensional Drawings (For reference only: mm [in].)

DIP NN: No ports



DIP AN: SIngle axial barbed port



DIP LN: Single axial barbless port

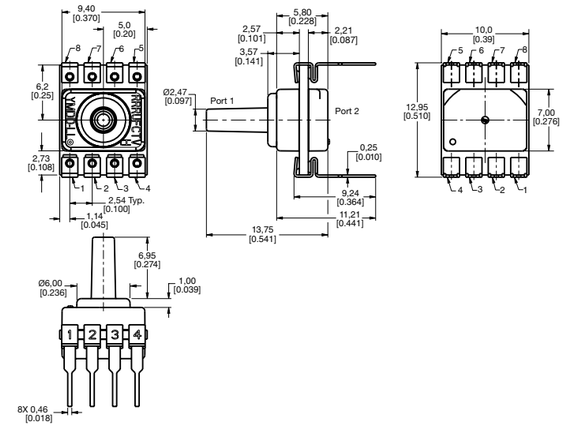
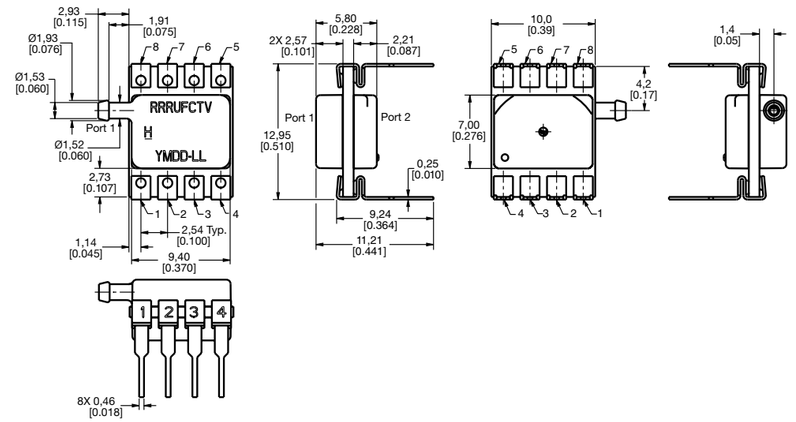
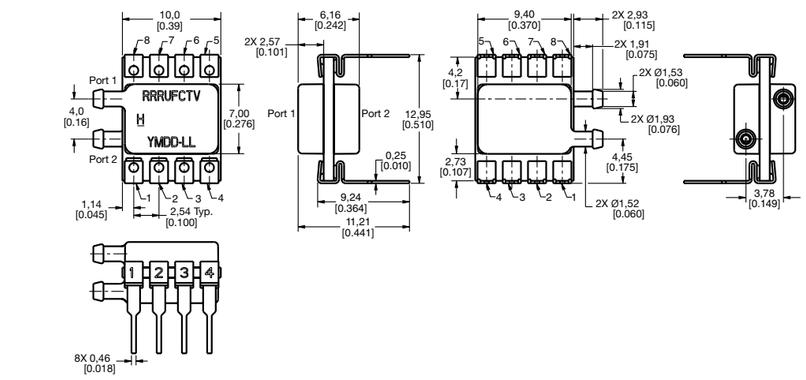


Figure 3. DIP Package Dimensional Drawings (continued)

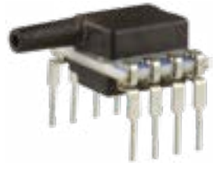
DIP RN: Single radial barbed port



DIP RR: Dual radial barbed ports, same side



DIP JN: Single radial barbless port



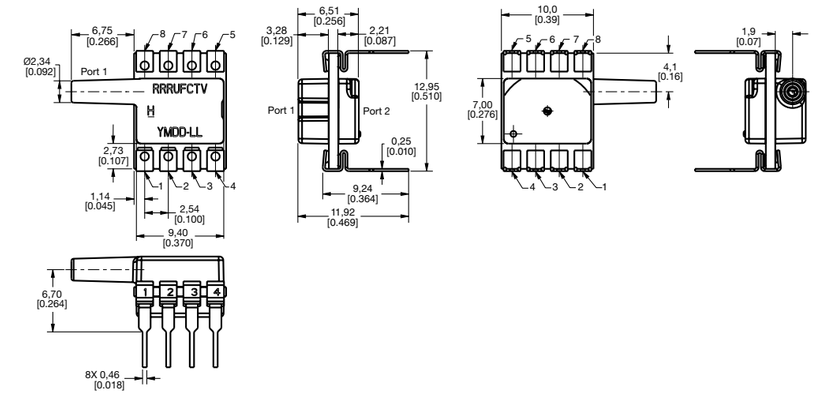


Figure 3. DIP Package Dimensional Drawings (continued)

DIP JJ: Dual radial barbless ports, same side

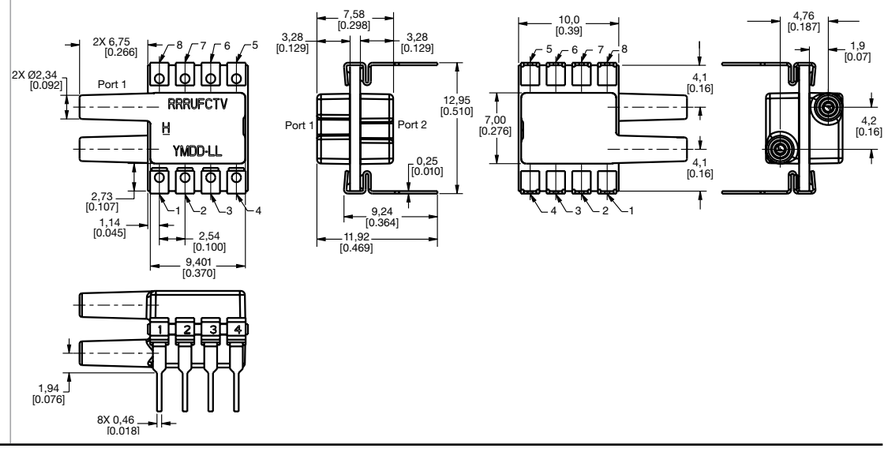
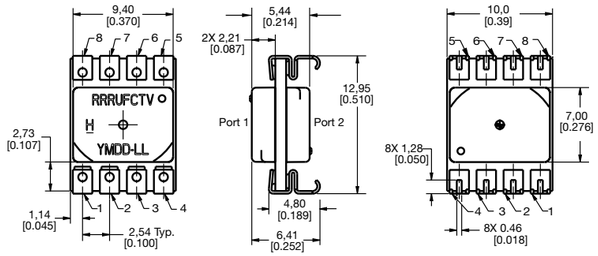


Figure 4. SMT Package Dimensional Drawings (For reference only: mm [in].)

SMT NN: No ports



SMT AN: Single axial barbed port

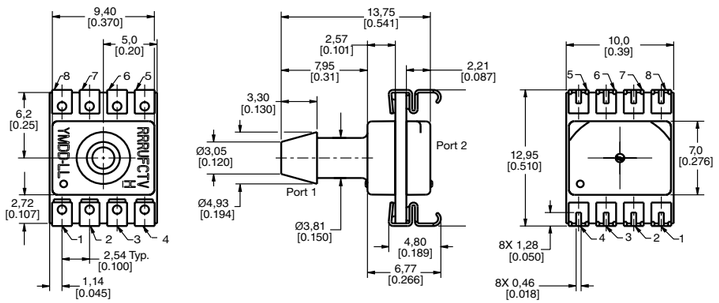
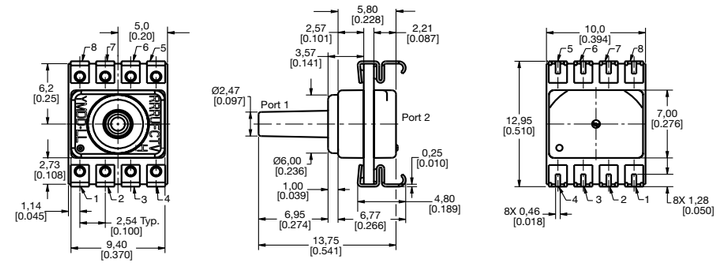
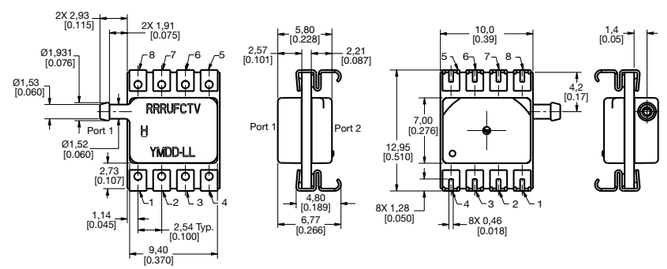


Figure 4. SMT Package Dimensional Drawings (continued)

SMT LN: Single axial barbless port



SMT RN: Single radial barbed port



SMT RR: Dual radial barbed ports, same side

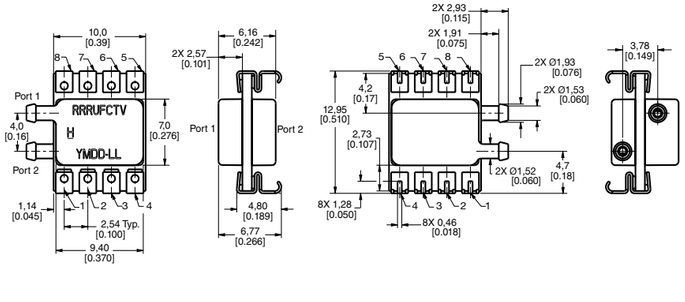
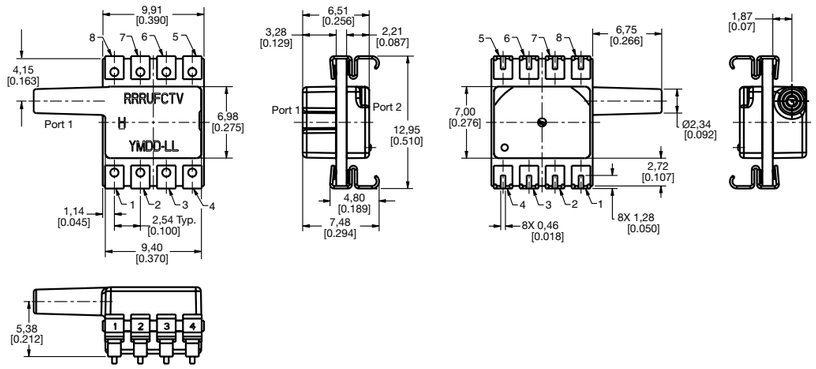


Figure 4. SMT Package Dimensional Drawings (continued)

SMT JN: Single radial barbless port



SMT JJ: Dual radial barbless ports, same side

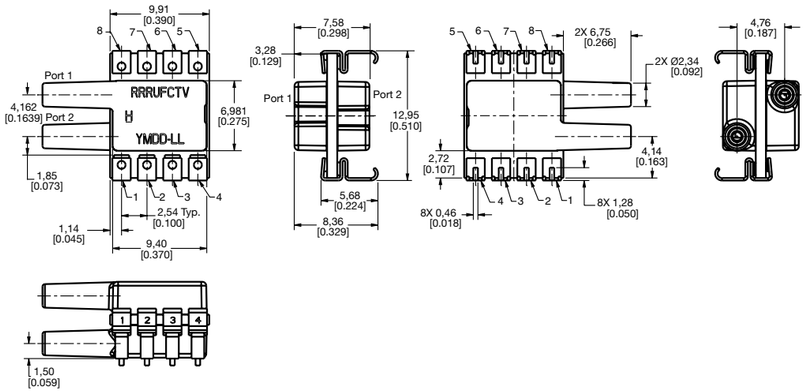
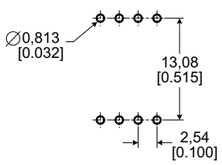
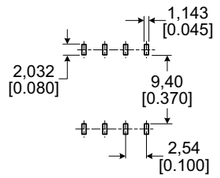


Figure 5. Recommended PCB Pad Layouts

DIP	SMT
	

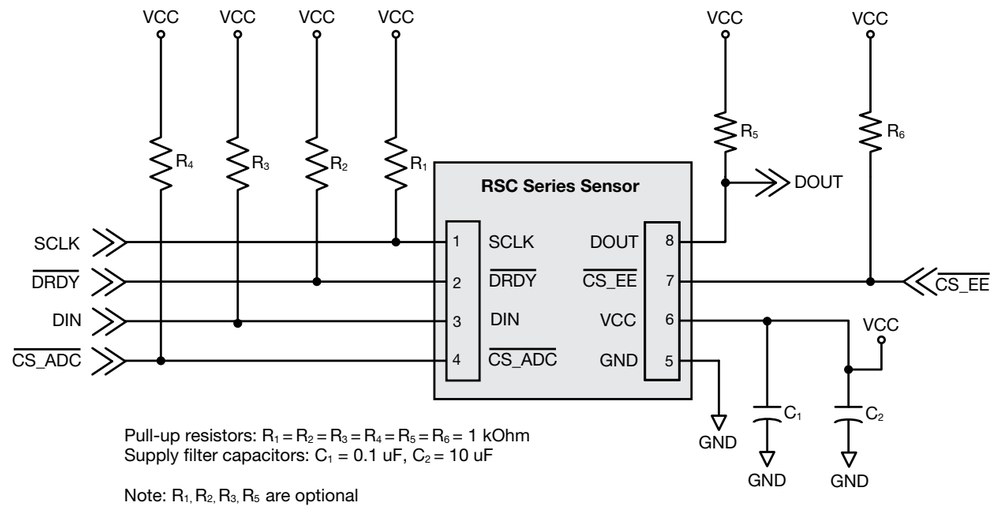
TruStability™ Board Mount Pressure Sensors
RSC Series

Issue D
32321347

Table 9. Pinout

Pin	Name	Description
1	SCLK	External Clock Source
2	$\overline{\text{DRDY}}$	Data Ready: Active Low
3	DIN	Serial Data Input
4	$\overline{\text{CS\_ADC}}$	ADC Chip Select: Active Low
5	GND	Ground
6	VCC	Positive Supply Voltage
7	$\overline{\text{CS\_EE}}$	EEPROM Chip Select: Active Low
8	DOUT	Serial Data Output

Figure 6. Recommended Circuit



Pull-up resistors: $R_1 = R_2 = R_3 = R_4 = R_5 = R_6 = 1$ kOhm
Supply filter capacitors: $C_1 = 0.1$ uF, $C_2 = 10$ uF

Note: R_1, R_2, R_3, R_5 are optional

⚠ 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.

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