Honeywell

Installation Instructions for the TruStability® Board Mount Pressure Sensors

Issue F

50044171

HSC Series—High Accuracy, Compensated/Amplified

±1.6 mbar to ±10 bar | ±160 Pa to ±1 MPa | ±0.5 inH_2O to ±150 psi
Digital or Analog Output

SSC Series—Standard Accuracy, Compensated/Amplified

±1.6 mbar to ±10 bar | ±160 Pa to ±1 MPa | ±0.5 inH_2O to ±150 psi
Digital or Analog Output

GENERAL INFORMATION

Honeywell's TruStability® High Accuracy Silicon Ceramic (HSC) Series and Standard Accuracy Silicon Ceramic (SSC) Series are piezoresistive silicon pressure sensors offering a digital or analog output for reading pressure over the specified full scale pressure span and temperature range.

These sensors measure absolute, gage, or differential pressures. The absolute versions have an internal vacuum reference and an output value proportional to absolute pressure. Gage versions are referenced to atmospheric pressure and provide an output proportional to pressure variations from atmosphere. Differential versions allow measurement of pressure between the two pressure ports.

CAUTION

PRODUCT DAMAGE FOR SENSORS WITH LIQUID MEDIA OPTION (ONLY AVAILABLE 60 MBAR | 6 KPA | 1 PSI AND ABOVE)

- Ensure liquid media is applied to Port 1 only; Port 2 is not compatible with liquids.
- Ensure liquid media contains no particulates. All TruStability® sensors are dead-ended devices. Particulates can accumulate inside the sensor, causing damage or affecting sensor output.
- Recommend that the sensor be positioned with Port 1 facing downwards; any particulates in the system are less likely to enter and settle within the pressure sensor if it is in this position.
- Ensure liquid media does not create a residue when dried; build-up inside the sensor may affect sensor output. Rinsing of a dead-ended sensor is difficult and has limited effectiveness for removing residue.
- Ensure liquid media are compatible with wetted materials. Noncompatible liquid media will degrade sensor performance and may lead to sensor failure.

Failure to comply with these instructions may result in product damage.

The HSC Series is calibrated over the temperature range of 0 °C to 50 °C [32 °F to 122 °F] while the SSC Series is calibrated over the temperature range of -20 °C to 85 °C [-4 °F to 185 °F].

The TruStability® pressure sensors are intended for use with non-corrosive, non-ionic gases, such as air and other dry gases. An available option extends the performance of these sensors to non-corrosive, non-ionic liquids for pressure ranges above 40 mbar | 4 kPa | 20 inH_20.

CLEANING

CAUTION

IMPROPER CLEANING

Avoid cleaning the sensor; however, if it must be cleaned ensure cleaning fluids, such as appropriate alcohols or fluorinated solvents, are used based on the type of contaminants to be removed. Do not immerse the sensor. **Failure to comply with these instructions may result in product damage.**

Table 1. Absolute Maximum Ratings[1]

Characteristic	Min.	Max.	Unit
Supply voltage (V_{supply})[2]:	-3.0	6.0	Vdc
Storage temperature	-40 [-40]	85 [185]	°C [°F]
Soldering time and temperature:			
lead solder temperature (SIP, DIP)	4 s max. at 250 °C [482 °F]		
peak reflow temperature (SMT)	15 s max. at 250 °C [482 °F]		

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

[2] Incorrect application of supply voltage or ground to the wrong pin may cause electrical failure.

Table 2. Environmental Specifications

Characteristic	Parameter
Humidity: gases only (See "Options N and D" in Figures 5 and 6.) liquid media (See "Options T and V" in Figures 5 and 6.)	 0% to 95% RH, non-condensing 100% condensing or direct liquid media on Port 1
Vibration	MIL-STD-202G Method 204D, Condition B (15 g, 10 Hz to 2 Hz)
Shock	MIL-STD-202G, Method 213B, Condition C (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 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	ceramic, silicon, glass, solder	silicon, glass, gold

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

Table 4. HSC Series and SSC Series Analog 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	3.0	3.3	3.6	
5.0 Vdc	4.75	5.0	5.25	Vdc
pressure ranges ≤40 mbar | 4 kPa | 20 inH_2O:				
3.3 Vdc	3.27	3.3	3.33	
5.0 Vdc	4.95	5.0	5.05	
Supply current:				
3.3 Vdc	—	2.1	2.8	mA
5.0 Vdc	—	2.7	3.5	
Operating temperature range[4]:				
HSC	-20 [-4]	—	85 [185]	°C [°F]
SSC	-40 [-40]	—	85 [185]	
Compensated temperature range[5]:				
HSC	0 [-32]	—	50 [122]	°C [°F]
SSC	-20 [-4]	—	85 [185]	
Startup time (power up to data ready)	—	—	5	ms
Response time	—	1	—	ms
Clipping limit:				
upper	—	—	97.5	%Vsupply
lower	2.5	—	—	
Accuracy[6]	—	—	±0.25	%FSS BFSL[8]
Output resolution	0.03	—	—	%FSS
Orientation sensitivity (±1 g):[7, 9]				
pressure ranges ≤40 mbar | 4 kPa | 20 inH_2O:	—	±0.1	—	%FSS
pressure ranges ≤2.5 mbar | 250 Pa | 1 inH_2O:	—	±0.2	—	

[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.

[6]Accuracy: The maximum deviation in output from a Best Fit Straight Line (BFSL) fitted to the output measured over the pressure range at 25 °C [77 °F]. 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 Figures 5 and 6 for ranges.)

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

Table 5. HSC Series and SSC Series 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	3.0	3.3	3.6	
5.0 Vdc	4.75	5.0	5.25	Vdc
pressure ranges ≤40 mbar | 4 kPa | 20 inH_2O:				
3.3 Vdc	3.27	3.3	3.33	
5.0 Vdc	4.95	5.0	5.05	
Supply current:				
3.3 Vdc	—	3.1	3.9	mA
5.0 Vdc	—	3.7	4.6	
Operating temperature range[4]:				
HSC	-20 [-4]	—	85 [185]	°C [°F]
SSC	-40 [-40]	—	85 [185]	
Compensated temperature range[5]:				
HSC	0 [-32]	—	50 [122]	°C [°F]
SSC	-20 [-4]	—	85 [185]	
Startup time (power up to data ready)	—	—	3	ms
Response time	—	0.46	—	ms
SPI/I^2C voltage level:				
low	—	—	20	%Vsupply
high	80	—	—	
Pull up on SDA/MISO, SCL/SCLK, SS	1	—	—	kOhm
Accuracy[6]	—	—	±0.25	%FSS BFSL[8]
Output resolution	12	—	—	bits
Orientation sensitivity (±1 g):[7, 9]				
pressure ranges ≤40 mbar | 4 kPa | 20 inH_2O:	—	±0.1	—	%FSS
pressure ranges ≤2.5 mbar | 250 Pa | 1 inH_2O:	—	±0.2	—	

[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.

[6]Accuracy: The maximum deviation in output from a Best Fit Straight Line (BFSL) fitted to the output measured over the pressure range at 25 °C [77 °F]. 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.

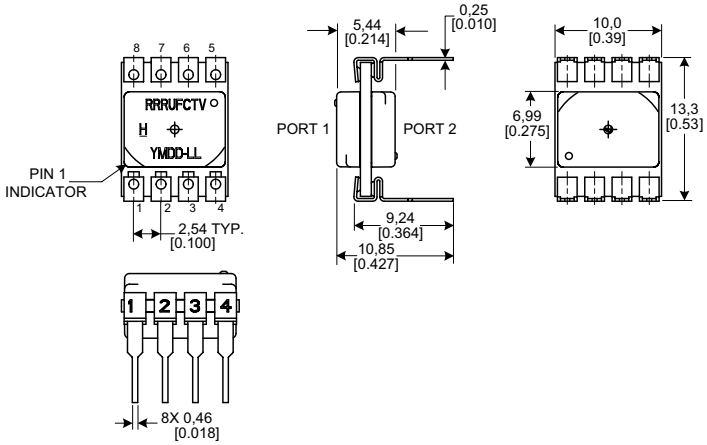
[8]Full Scale Span (FSS): The algebraic difference between the output signal measured at the maximum (Pmax.) and minimum (Pmin.) limits of the pressure range. (See Figures 5 and 6 for ranges.)

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

Figure 1. DIP Package Dimensional Drawings (For reference only: mm [in])

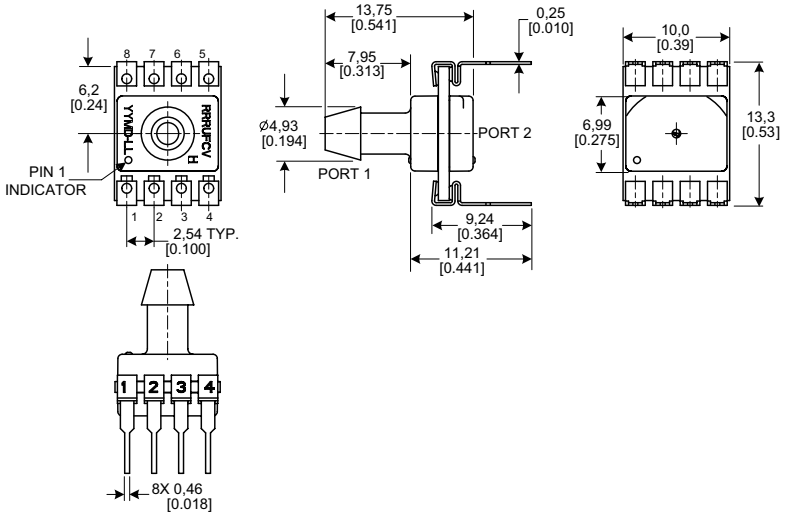
DIP NN: No ports





DIP AN: Single axial barbed port





DIP LN: Single axial barbless port



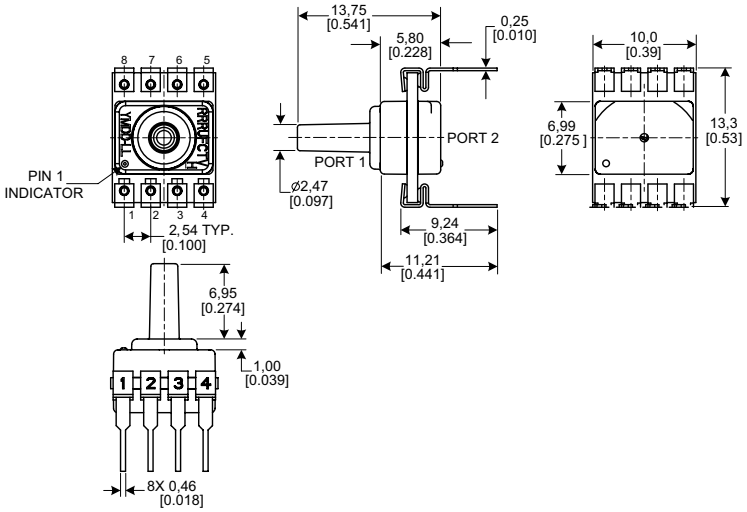
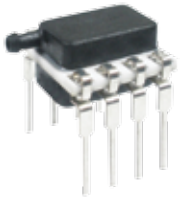
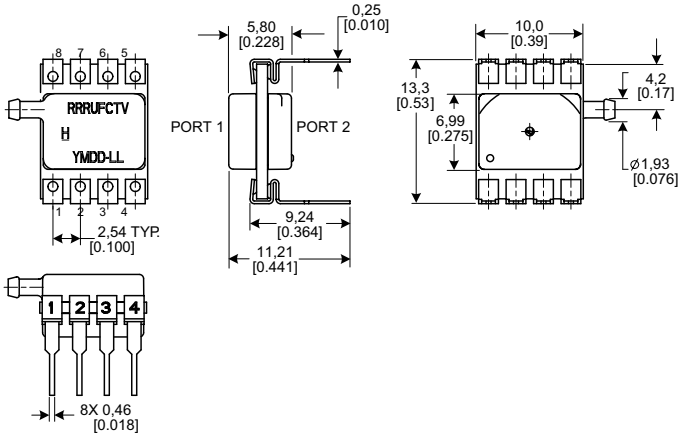


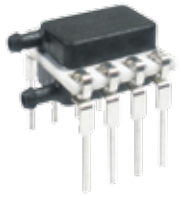
Figure 1. DIP Package Dimensional Drawings (continued)

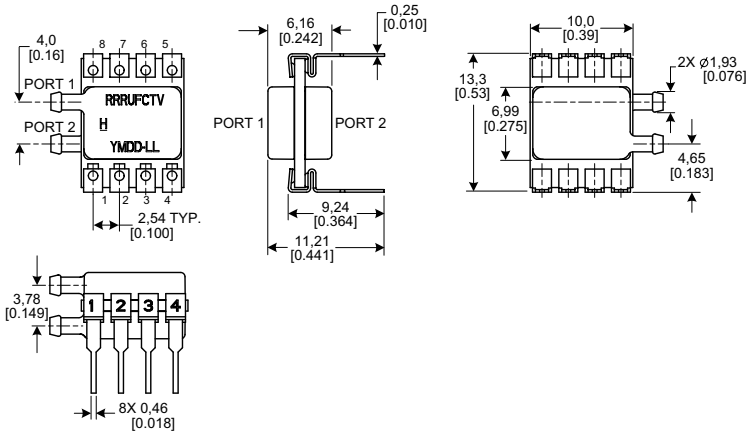
DIP RN: Single radial barbed port





DIP RR: Dual radial barbed ports, same side





DIP DR: Dual radial barbed ports, opposite sides



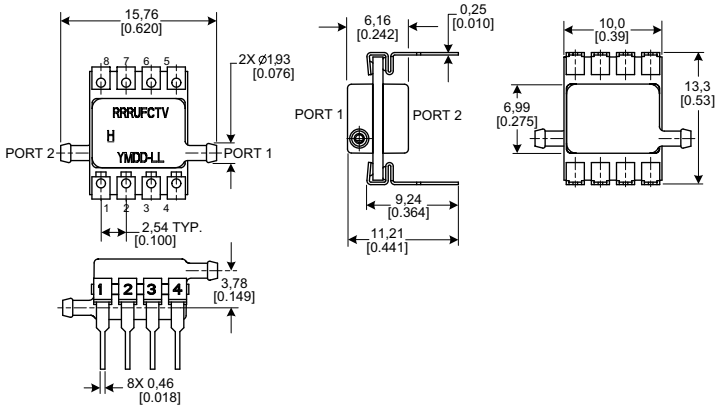
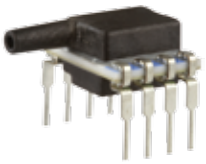
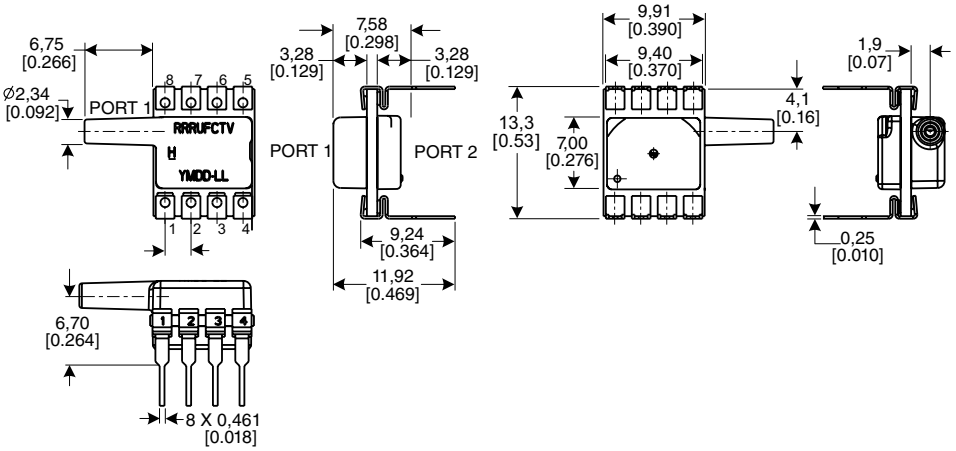


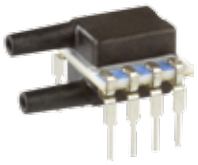
Figure 1. DIP Package Dimensional Drawings (continued)

DIP JN: Single radial barbless port





DIP JJ: Dual radial radial barbless ports, same side



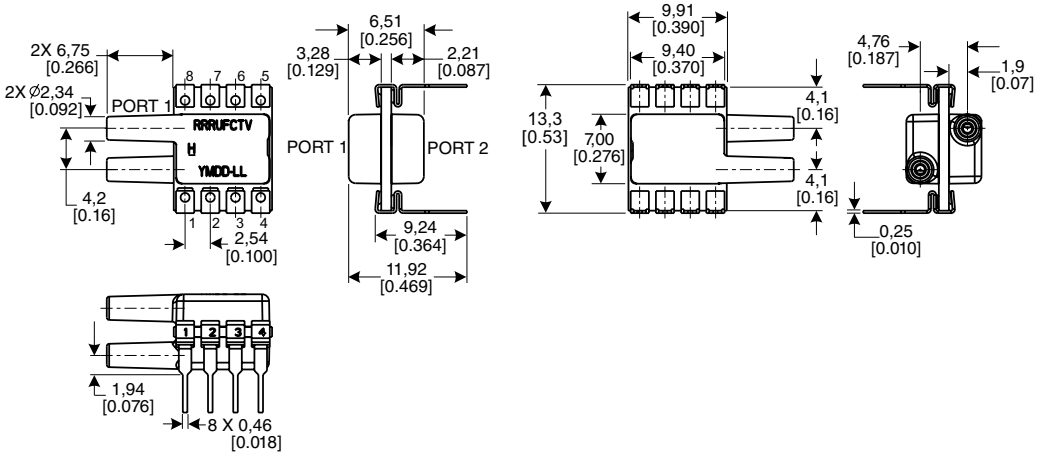


Figure 2. SMT Package Dimensional Drawings (For reference only: mm [in])

SMT NN: No ports



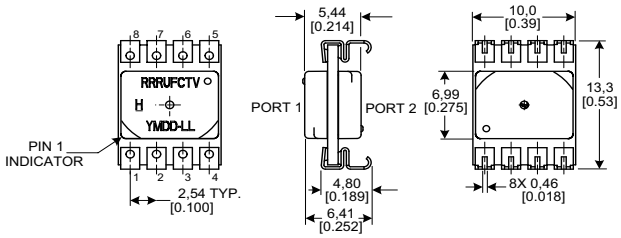
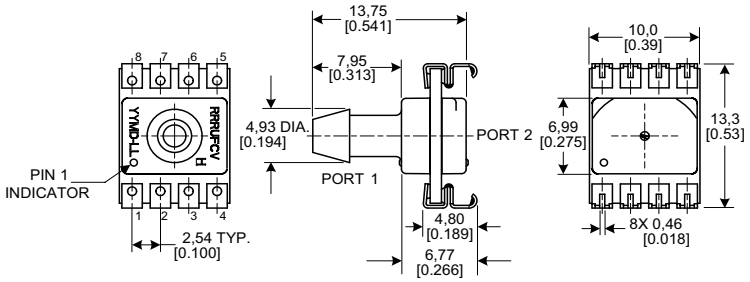


Figure 2. SMT Package Dimensional Drawings (continued)

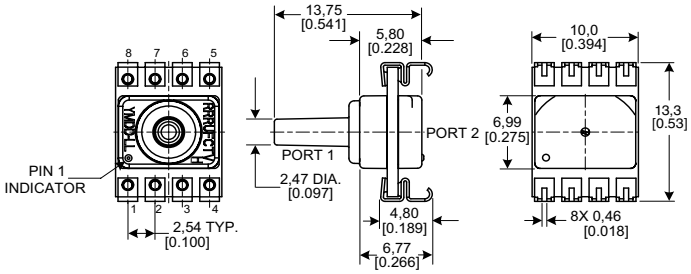
SMT AN: Single axial barbed port





SMT LN: Single axial barbless port





SMT RN: Single radial barbed port



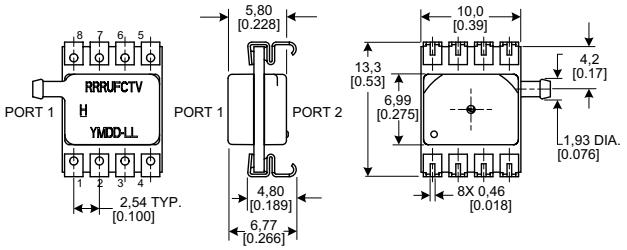


Figure 2. SMT Package Dimensional Drawings (continued)

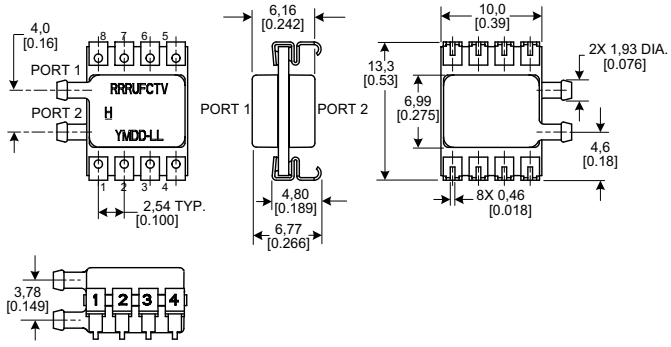
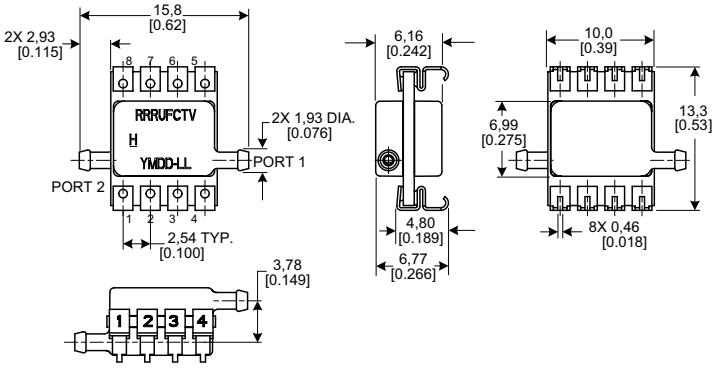
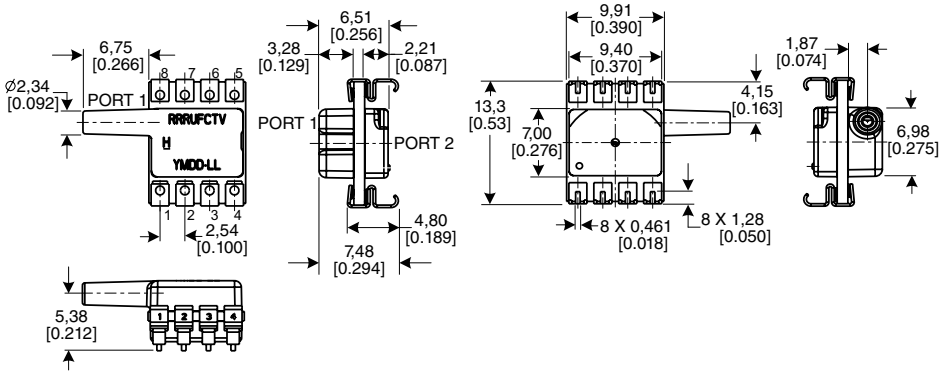
SMT RR: Dual radial barbed ports, same side 	
SMT DR: Dual radial barbed ports, opposite sides 	
SMT JN: Single radial barbless port 	

Figure 2. SMT Package Dimensional Drawings (continued)

SMT JJ: Dual radial barbless ports, same side



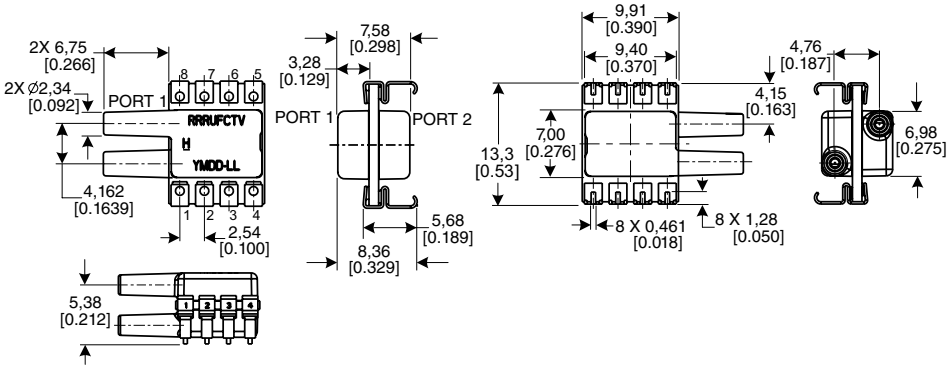
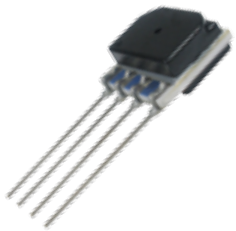
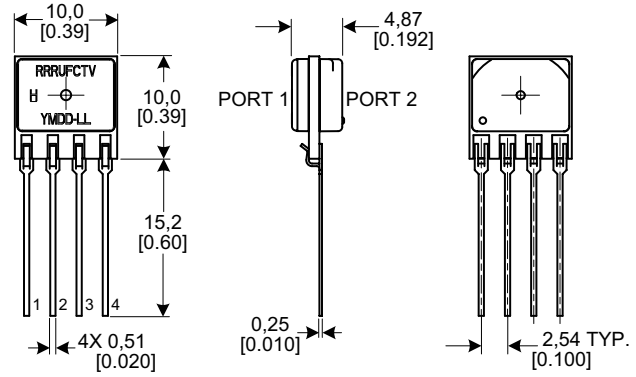


Figure 3. SIP Package Dimensional Drawings (For reference only: mm [in].)

SIP NN: No ports





SIP AA: Dual axial barbed ports, opposite sides



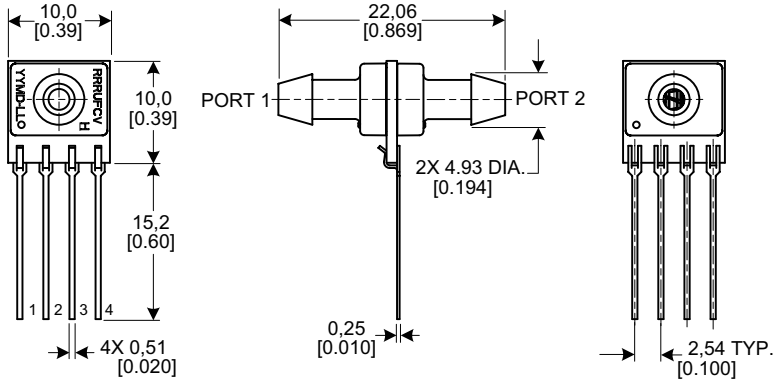
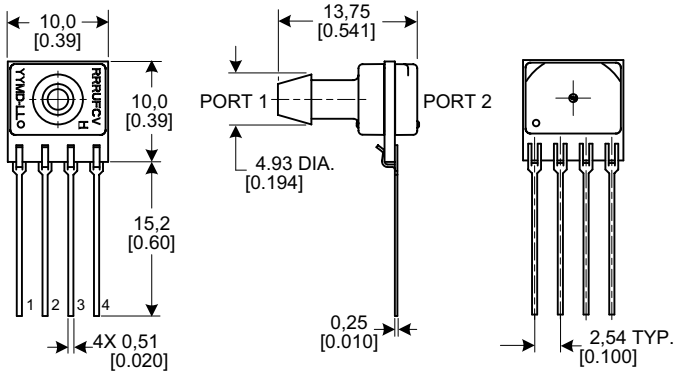


Figure 3. SIP Package Dimensional Drawings (continued)

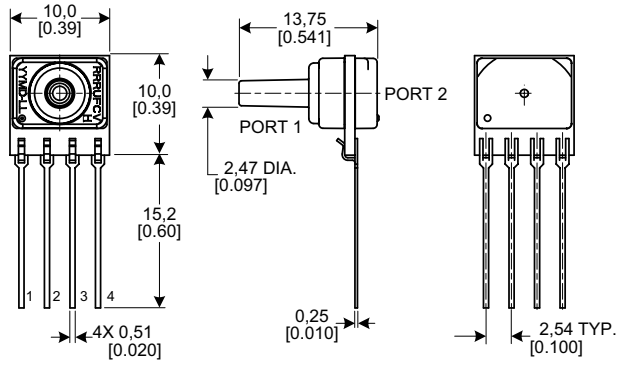
SIP AN: Single axial barbed port





SIP LN: Single axial barbless port





SIP FF: Fastener mount, dual axial barbed ports, opposite sides



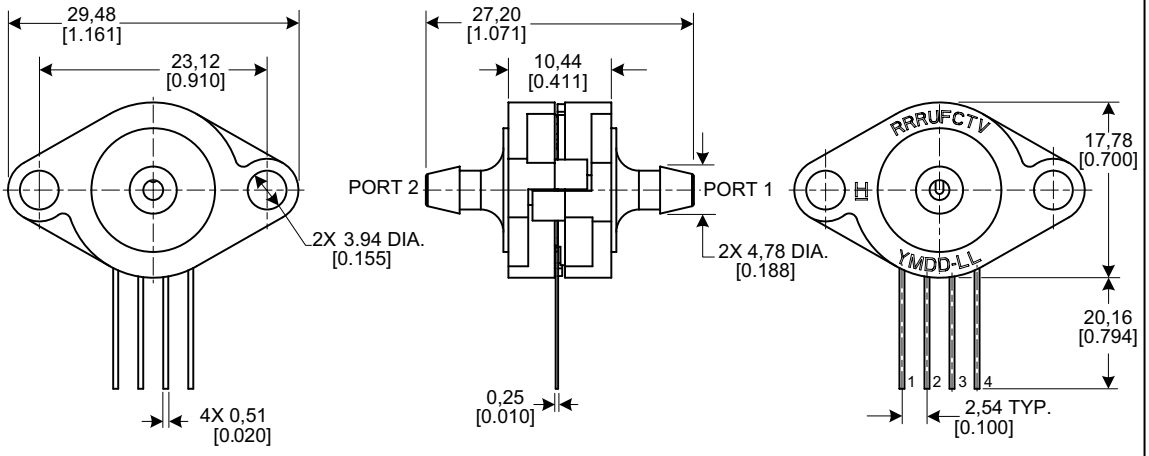
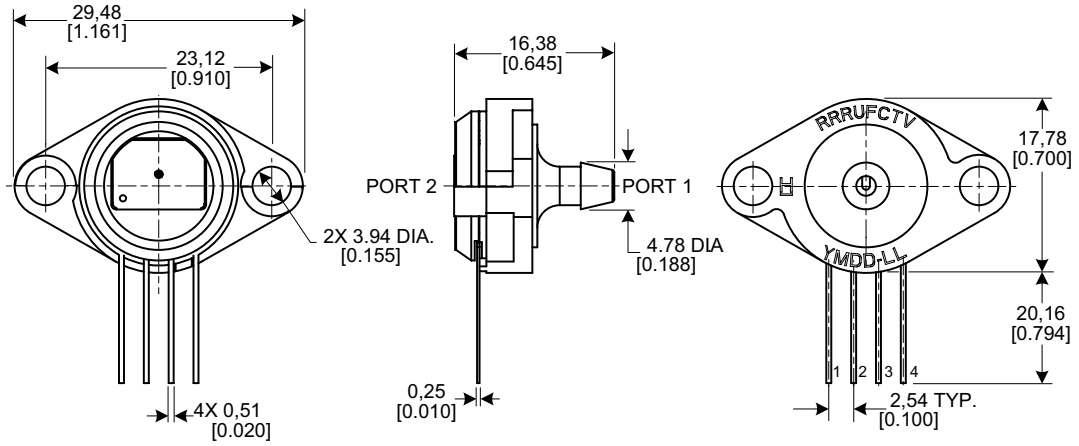


Figure 3. SIP Package Dimensional Drawings (continued)

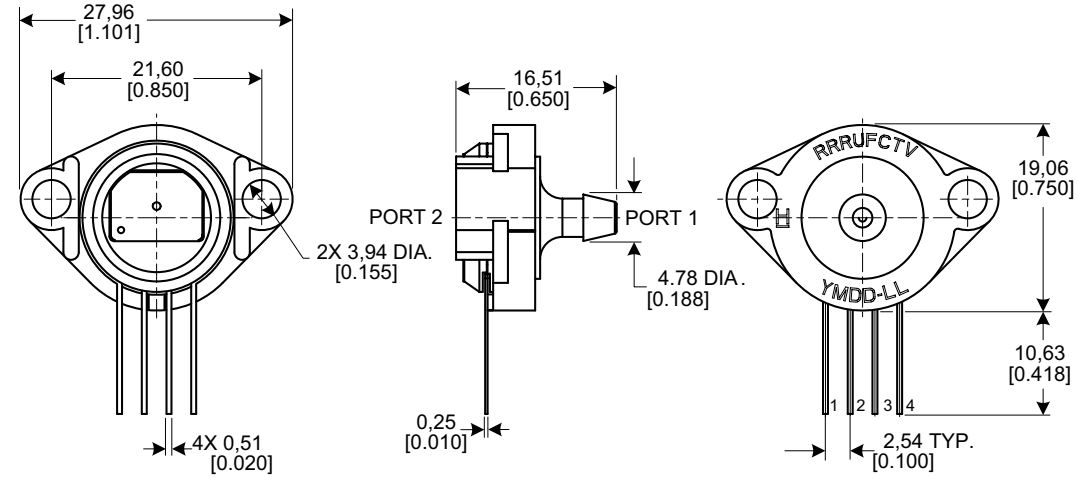
SIP FN: Fastener mount, single axial barbed port





SIP GN: Ribbed fastener mount, single axial barbed port





SIP NB: Fastener mount, dual axial ports, same side



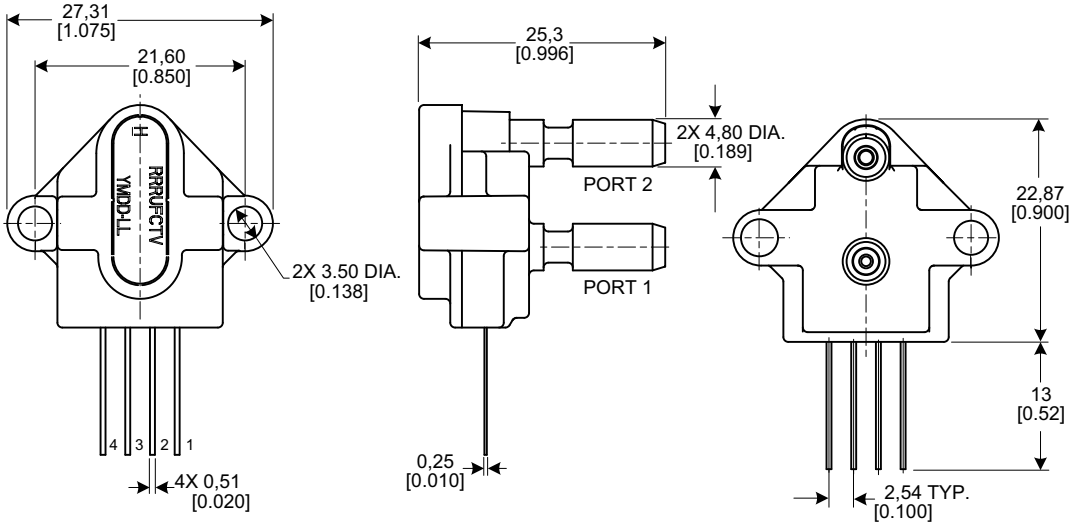
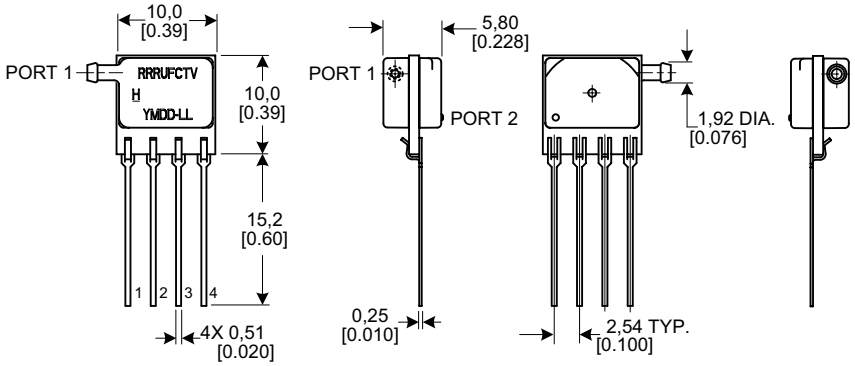


Figure 3. SIP Package Dimensional Drawings (continued)

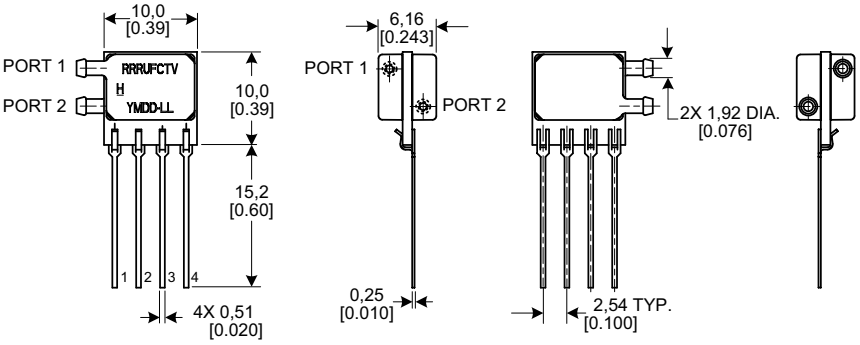
SIP RN: Single radial barbed port





SIP RR: Dual radial barbed ports, same side





SIP DR: Dual radial barbed ports, opposite sides



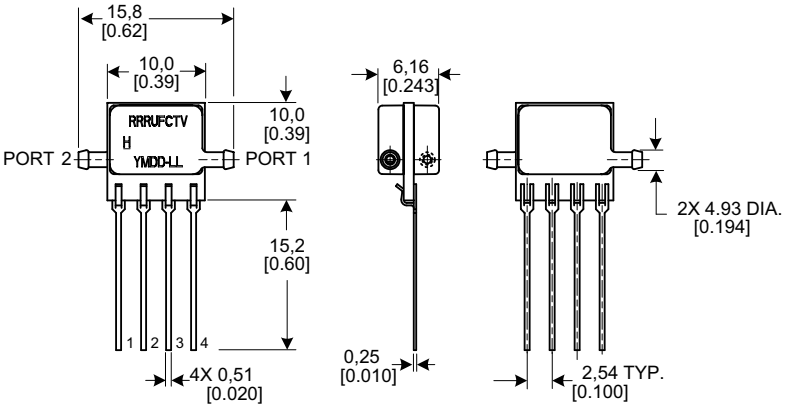
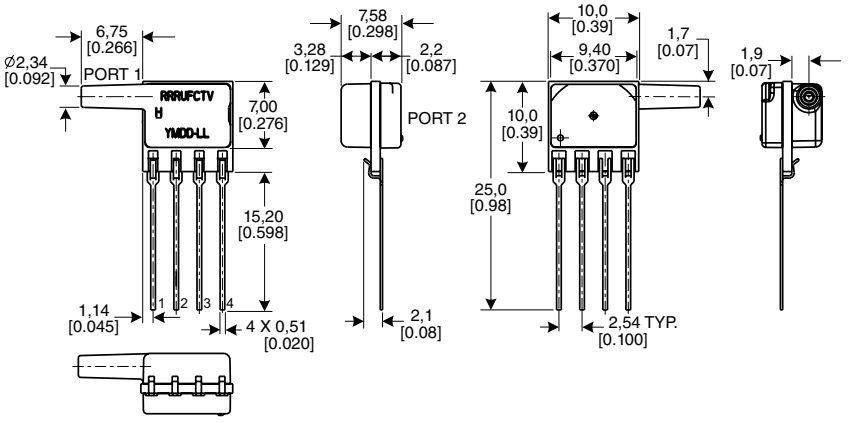


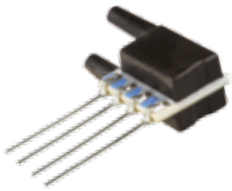
Figure 3. SIP Package Dimensional Drawings (continued)

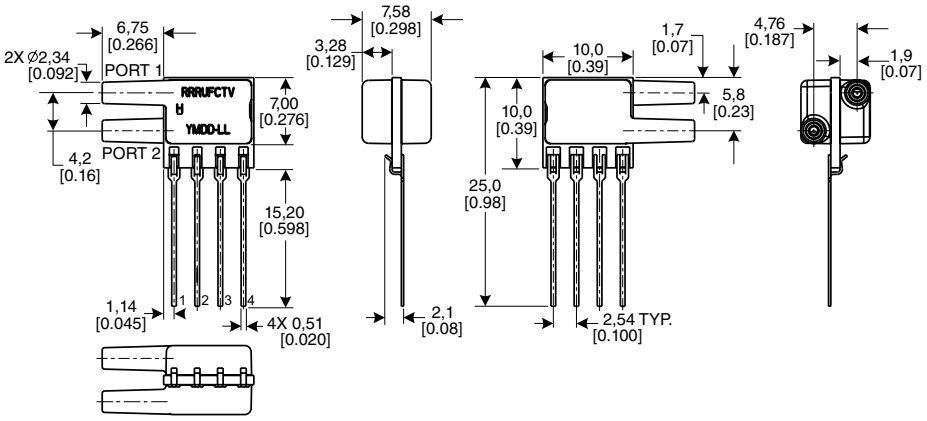
SIP JN: Single radial barbless port





SIP JJ: Dual radial barbless ports, same side





SIP HH: Fastener mount dual radial barbed ports, same side



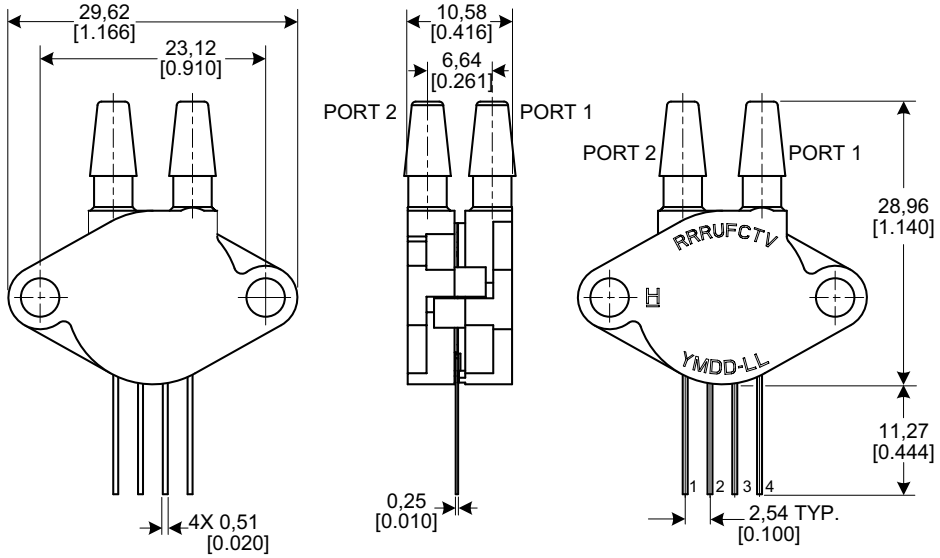
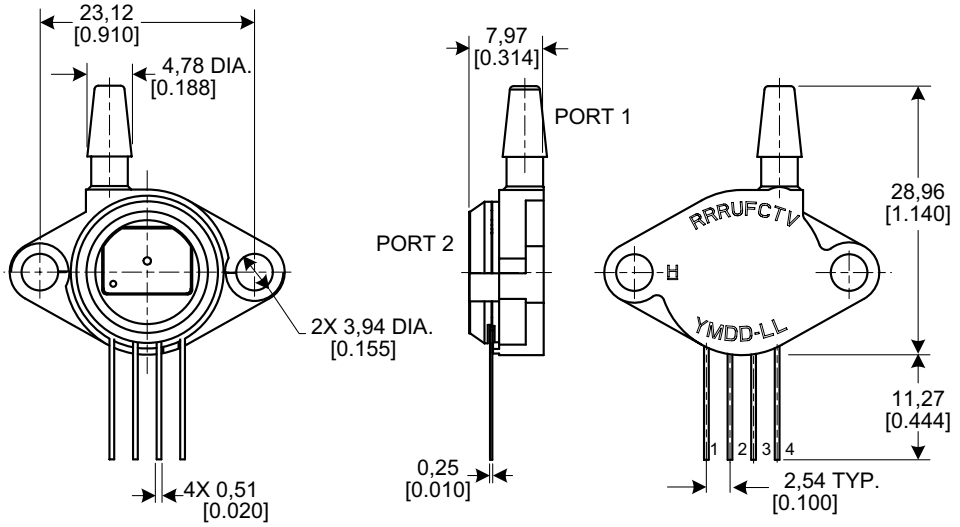


Figure 3. SIP Package Dimensional Drawings (continued)

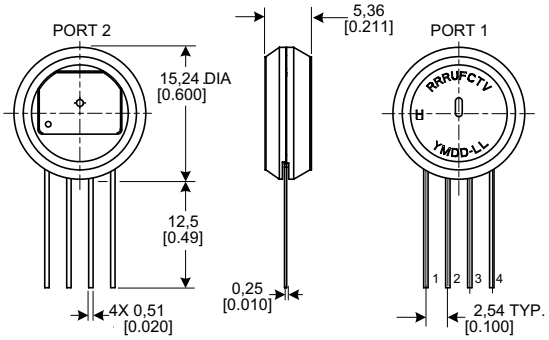
SIP HN: Fastener mount single radial barbed port





SIP MN: Manifold mount, outer diameter seal





SIP SN: Manifold mount, inner diameter seal



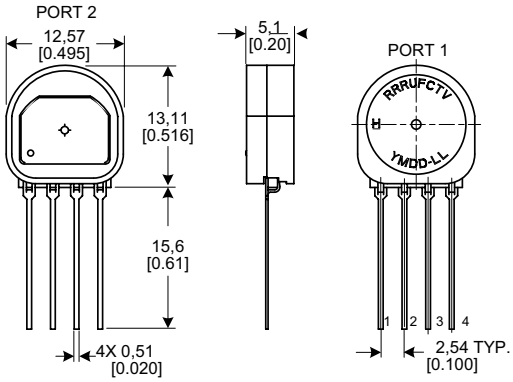


Table 6. Pinouts for DIP and SMT Packages

Output Type	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
I^2C	GND	Vsupply	SDA	SCL	NC	NC	NC	NC
SPI	GND	Vsupply	MISO	SCLK	SS	NC	NC	NC
Analog	NC	Vsupply	Vout	GND	NC	NC	NC	NC

Table 7. Pinouts for SIP Packages

Output Type	Pin 1	Pin 2	Pin 3	Pin 4
I^2C	GND	Vsupply	SDA	SCL
Analog	NC	Vsupply	Vout	GND

Figure 4. Recommended PCB Pad Layouts

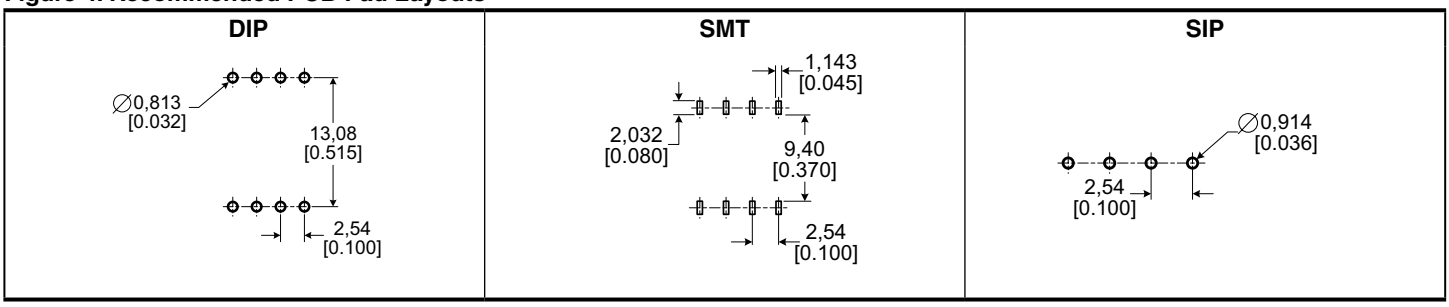


Figure 5. HSC Series Nomenclature and Order Guide

For example, **HSCDNNN150PGAA3** defines an HSC Series TruStability® Pressure Sensor, DIP package, NN pressure port, no special options,150 psi gage pressure range, analog output type, 10% to 90% of Vsupply transfer function, 3.3 Vdc supply voltage.

H S C D N N N 1 5 0 P G A A 3

Product Series

HSC	High Accuracy, Compensated/Amplified

Package

D	DIP (Dual Inline Pin)
M	SMT (Surface Mount Technology)
S	SIP (Single Inline Pin)

Pressure Port

DIP	SMT	SIP
NN No ports	**NN** No ports	**NN** No ports
—	—	**AA** Dual axial barbed ports, opposite sides
AN Single axial barbed port	**AN** Single axial barbed port	**AN** Single axial barbed port
LN Single axial barbless port	**LN** Single axial barbless port	**LN** Single axial barbless port
—	—	**FF** Fastener mount, dual axial barbed ports, opposite sides
—	—	**FN** Fastener mount, single axial barbed port
—	—	**GN** Ribbed fastener mount, single axial barbed port
—	—	**NB** Fastener mount, dual axial ports, same side
RN Single radial barbed port	**RN** Single radial barbed port	**RN** Single radial barbed port
RR Dual radial barbed ports, same side	**RR** Dual radial barbed ports, same side	**RR** Dual radial barbed ports, same side
DR Dual radial barbed ports, opposite sides	**DR** Dual radial barbed ports, opposite sides	**DR** Dual radial barbed ports, opposite sides
JN Single radial barbless port	**JN** Single radial barbless port	**JN** Single radial barbless port
JJ Dual radial barbless ports, same side	**JJ** Dual radial barbless ports, same side	**JJ** Dual radial barbless ports, same side
—	—	**HH** Fastener mount, dual radial barbed ports, same side
—	—	**HN** Fastener mount, single radial barbed port
—	—	**MN** Manifold mount, outer diameter seal
—	—	**SN** Manifold mount, inner diameter seal

Options[5, 6]

N	Dry gases only, no diagnostics
D	Dry gases only, diagnostics on
T	Liquid media on Port 1, no diagnostics
V	Liquid media on Port 1, diagnostics on

Supply Voltage

3	3.3 Vdc
5	5.0 Vdc

Transfer Function[1]

A	10% to 90% of Vsupply (analog), 2^{14} counts (digital)
B	5% to 95% of Vsupply (analog), 2^{14} counts (digital)
C	5% to 85% of Vsupply (analog), 2^{14} counts (digital)
F	4% to 94% of Vsupply (analog), 2^{14} counts (digital)

Output Type[2]

A	Analog	**4**	I²C, Address 0x48
S	SPI	**5**	I²C, Address 0x58
2	I²C, Address 0x28	**6**	I²C, Address 0x68
3	I²C, Address 0x38	**7**	I²C, Address 0x78

Pressure Range[3, 4]

±1.6 mbar to ±10 bar	±160 Pa to ±1 MPa	±0.5 inH_2O to ±150 psi
Absolute	*Absolute*	*Absolute*
001BA 0 bar to 1 bar	**100KA** 0 kPa to 100 kPa	**015PA** 0 psi to 15 psi
1.6BA 0 bar to 1.6 bar	**160KA** 0 kPa to 160 kPa	**030PA** 0 psi to 30 psi
2.5BA 0 bar to 2.5 bar	**250KA** 0 kPa to 250 kPa	**060PA** 0 psi to 60 psi
004BA 0 bar to 4 bar	**400KA** 0 kPa to 400 kPa	**100PA** 0 psi to 100 psi
006BA 0 bar to 6 bar	**600KA** 0 kPa to 600 kPa	**150PA** 0 psi to 150 psi
010BA 0 bar to 10 bar	**001GA** 0 kPa to 1 MPa	
Differential	*Differential*	*Differential*
1.6MD ±1.6 mbar	**160LD** ±160 Pa	**0.5ND** ±0.5 inH_2O
2.5MD ±2.5 mbar	**250LD** ±250 Pa	**001ND** ±1 inH_2O
004MD ±4 mbar	**400LD** ±400 Pa	**002ND** ±2 inH_2O
006MD ±6 mbar	**600LD** ±600 Pa	**004ND** ±4 inH_2O
010MD ±10 mbar	**001KD** ±1 kPa	**005ND** ±5 inH_2O
016MD ±16 mbar	**1.6KD** ±1.6 kPa	**010ND** ±10 inH_2O
025MD ±25 mbar	**2.5KD** ±2.5 kPa	**020ND** ±20 inH_2O
040MD ±40 mbar	**004KD** ±4 kPa	**030ND** ±30 inH_2O
060MD ±60 mbar	**006KD** ±6 kPa	**001PD** ±1 psi
100MD ±100 mbar	**010KD** ±10 kPa	**005PD** ±5 psi
160MD ±160 mbar	**016KD** ±16 kPa	**015PD** ±15 psi
250MD ±250 mbar	**025KD** ±25 kPa	**030PD** ±30 psi
400MD ±400 mbar	**040KD** ±40 kPa	**060PD** ±60 psi
600MD ±600 mbar	**060KD** ±60 kPa	
001BD ±1 bar	**100KD** ±100 kPa	
1.6BD ±1.6 bar	**160KD** ±160 kPa	
2.5BD ±2.5 bar	**250KD** ±250 kPa	
004BD ±4 bar	**400KD** ±400 kPa	
Gage	*Gage*	*Gage*
2.5MG 0 mbar to 2.5 mbar	**250LG** 0 Pa to 250 Pa	**001NG** 0 inH_2O to 1 inH_2O
004MG 0 mbar to 4 mbar	**400LG** 0 Pa to 400 Pa	**002NG** 0 inH_2O to 2 inH_2O
006MG 0 mbar to 6 mbar	**600LG** 0 Pa to 600 Pa	**004NG** 0 inH_2O to 4 inH_2O
010MG 0 mbar to 10 mbar	**001KG** 0 kPa to 1 kPa	**005NG** 0 inH_2O to 5 inH_2O
016MG 0 mbar to 16 mbar	**1.6KG** 0 kPa to 1.6 kPa	**010NG** 0 inH_2O to 10 inH_2O
025MG 0 mbar to 25 mbar	**2.5KG** 0 kPa to 2.5 kPa	**020NG** 0 inH_2O to 20 inH_2O
040MG 0 mbar to 40 mbar	**004KG** 0 kPa to 4 kPa	**030NG** 0 inH_2O to 30 inH_2O
060MG 0 mbar to 60 mbar	**006KG** 0 kPa to 6 kPa	**001PG** 0 psi to 1 psi
100MG 0 mbar to 100 mbar	**010KG** 0 kPa to 10 kPa	**005PG** 0 psi to 5 psi
160MG 0 mbar to 160 mbar	**016KG** 0 kPa to 16 kPa	**015PG** 0 psi to 15 psi
250MG 0 mbar to 250 mbar	**025KG** 0 kPa to 25 kPa	**030PG** 0 psi to 30 psi
400MG 0 bar to 400 mbar	**040KG** 0 kPa to 40 kPa	**060PG** 0 psi to 60 psi
600MG 0 bar to 600 mbar	**060KG** 0 kPa to 60 kPa	**100PG** 0 psi to 100 psi
001BG 0 bar to 1 bar	**100KG** 0 kPa to 100 kPa	**150PG** 0 psi to 150 psi
1.6BG 0 bar to 1.6 bar	**160KG** 0 kPa to 160 kPa	
2.5BG 0 bar to 2.5 bar	**250KG** 0 kPa to 250 kPa	
004BG 0 bar to 4 bar	**400KG** 0 kPa to 400 kPa	
006BG 0 bar to 6 bar	**600KG** 0 kPa to 600 kPa	
010BG 0 bar to 10 bar	**001GG** 0 kPa to 1 MPa	

[1]The transfer function limits define the output of the sensor at a given pressure input. By specifying Pmin. and Pmax., the output at Pmin. and Pmax., the complete transfer function of the sensor is defined. See the graphical representations of the transfer function in the product datasheet, Figure 2. For other available transfer functions contact Honeywell Customer Service.
[2]SPI output function is not available in SIP package.
[3]Custom pressure ranges are available. Contact Honeywell Customer Service for more information.
[4]See the explanation of sensor pressure types in the product datasheet, Table 4.
[5]See the CAUTION in this document.
[6]Options T and V are only available on pressure ranges ±60 mbar to ±10 bar | ±6 kPa to ±1 MPa | ±1 psi to ±150 psi.

Figure 6. SSC Series Nomenclature and Order Guide

For example, **SSCDNNN150PGAA3** defines an SSC Series TruStability® Pressure Sensor, DIP package, NN pressure port, no special options,150 psi gage pressure range, analog output type, 10% to 90% of Vsupply transfer function, 3.3 Vdc supply voltage.

S S C D N N N 1 5 0 P G A A 3

Product Series

SSC	Standard Accuracy, Compensated/Amplified

Package

D	DIP (Dual Inline Pin)
M	SMT (Surface Mount Technology)
S	SIP (Single Inline Pin)

Pressure Port

DIP		SMT		SIP	
NN	No ports	**NN**	No ports	**NN**	No ports
—		—		**AA**	Dual axial barbed ports, opposite sides
AN	Single axial barbed port	**AN**	Single axial barbed port	**AN**	Single axial barbed port
LN	Single axial barbless port	**LN**	Single axial barbless port	**LN**	Single axial barbless port
—		—		**FF**	Fastener mount, dual axial barbed ports, opposite sides
—		—		**FN**	Fastener mount, single axial barbed port
—		—		**GN**	Ribbed fastener mount, single axial barbed port
—		—		**NB**	Fastener mount, dual axial ports, same side
RN	Single radial barbed port	**RN**	Single radial barbed port	**RN**	Single radial barbed port
RR	Dual radial barbed ports, same side	**RR**	Dual radial barbed ports, same side	**RR**	Dual radial barbed ports, same side
DR	Dual radial barbed ports, opposite sides	**DR**	Dual radial barbed ports, opposite sides	**DR**	Dual radial barbed ports, opposite sides
JN	Single radial barbless port	**JN**	Single radial barbless port	**JN**	Single radial barbless port
JJ	Dual radial barbless ports, same side	**JJ**	Dual radial barbless ports, same side	**JJ**	Dual radial barbless ports, same side
—		—		**HH**	Fastener mount, dual radial barbed ports, same side
—		—		**HN**	Fastener mount, single radial barbed port
—		—		**MN**	Manifold mount, outer diameter seal
—		—		**SN**	Manifold mount, inner diameter seal

Options[5, 6]

N	Dry gases only, no diagnostics
D	Dry gases only, diagnostics on
T	Liquid media on Port 1, no diagnostics
V	Liquid media on Port 1, diagnostics on

Supply Voltage

3	3.3 Vdc
5	5.0 Vdc

Transfer Function[1]

A	10% to 90% of Vsupply (analog), 2^{14} counts (digital)
B	5% to 95% of Vsupply (analog), 2^{14} counts (digital)
C	5% to 85% of Vsupply (analog), 2^{14} counts (digital)
F	4% to 94% of Vsupply (analog), 2^{14} counts (digital)

Output Type[2]

A	Analog	**4**	I²C, Address 0x48
S	SPI	**5**	I²C, Address 0x58
2	I²C, Address 0x28	**6**	I²C, Address 0x68
3	I²C, Address 0x38	**7**	I²C, Address 0x78

Pressure Range[3, 4]

±1.6 mbar to ±10 bar	±160 Pa to ±1 MPa	±0.5 inH_2O to ±150 psi
Absolute	*Absolute*	*Absolute*
001BA 0 bar to 1 bar	**100KA** 0 kPa to 100 kPa	**015PA** 0 psi to 15 psi
1.6BA 0 bar to 1.6 bar	**160KA** 0 kPa to 160 kPa	**030PA** 0 psi to 30 psi
2.5BA 0 bar to 2.5 bar	**250KA** 0 kPa to 250 kPa	**060PA** 0 psi to 60 psi
004BA 0 bar to 4 bar	**400KA** 0 kPa to 400 kPa	**100PA** 0 psi to 100 psi
006BA 0 bar to 6 bar	**600KA** 0 kPa to 600 kPa	**150PA** 0 psi to 150 psi
010BA 0 bar to 10 bar	**001GA** 0 kPa to 1 MPa	
Differential	*Differential*	*Differential*
1.6MD ±1.6 mbar	**160LD** ±160 Pa	**0.5ND** ±0.5 inH_2O
2.5MD ±2.5 mbar	**250LD** ±250 Pa	**001ND** ±1 inH_2O
004MD ±4 mbar	**400LD** ±400 Pa	**002ND** ±2 inH_2O
006MD ±6 mbar	**600LD** ±600 Pa	**004ND** ±4 inH_2O
010MD ±10 mbar	**001KD** ±1 kPa	**005ND** ±5 inH_2O
016MD ±16 mbar	**1.6KD** ±1.6 kPa	**010ND** ±10 inH_2O
025MD ±25 mbar	**2.5KD** ±2.5 kPa	**020ND** ±20 inH_2O
040MD ±40 mbar	**004KD** ±4 kPa	**030ND** ±30 inH_2O
060MD ±60 mbar	**006KD** ±6 kPa	**001PD** ±1 psi
100MD ±100 mbar	**010KD** ±10 kPa	**005PD** ±5 psi
160MD ±160 mbar	**016KD** ±16 kPa	**015PD** ±15 psi
250MD ±250 mbar	**025KD** ±25 kPa	**030PD** ±30 psi
400MD ±400 mbar	**040KD** ±40 kPa	**060PD** ±60 psi
600MD ±600 mbar	**060KD** ±60 kPa	
001BD ±1 bar	**100KD** ±100 kPa	
1.6BD ±1.6 bar	**160KD** ±160 kPa	
2.5BD ±2.5 bar	**250KD** ±250 kPa	
004BD ±4 bar	**400KD** ±400 kPa	
Gage	*Gage*	*Gage*
2.5MG 0 mbar to 2.5 mbar	**250LG** 0 Pa to 250 Pa	**001NG** 0 inH_2O to 1 inH_2O
004MG 0 mbar to 4 mbar	**400LG** 0 Pa to 400 Pa	**002NG** 0 inH_2O to 2 inH_2O
006MG 0 mbar to 6 mbar	**600LG** 0 Pa to 600 Pa	**004NG** 0 inH_2O to 4 inH_2O
010MG 0 mbar to 10 mbar	**001KG** 0 kPa to 1 kPa	**005NG** 0 inH_2O to 5 inH_2O
016MG 0 mbar to 16 mbar	**1.6KG** 0 kPa to 1.6 kPa	**010NG** 0 inH_2O to 10 inH_2O
025MG 0 mbar to 25 mbar	**2.5KG** 0 kPa to 2.5 kPa	**020NG** 0 inH_2O to 20 inH_2O
040MG 0 mbar to 40 mbar	**004KG** 0 kPa to 4 kPa	**030NG** 0 inH_2O to 30 inH_2O
060MG 0 mbar to 60 mbar	**006KG** 0 kPa to 6 kPa	**001PG** 0 psi to 1 psi
100MG 0 mbar to 100 mbar	**010KG** 0 kPa to 10 kPa	**005PG** 0 psi to 5 psi
160MG 0 mbar to 160 mbar	**016KG** 0 kPa to 16 kPa	**015PG** 0 psi to 15 psi
250MG 0 mbar to 250 mbar	**025KG** 0 kPa to 25 kPa	**030PG** 0 psi to 30 psi
400MG 0 bar to 400 mbar	**040KG** 0 kPa to 40 kPa	**060PG** 0 psi to 60 psi
600MG 0 bar to 600 mbar	**060KG** 0 kPa to 60 kPa	**100PG** 0 psi to 100 psi
001BG 0 bar to 1 bar	**100KG** 0 kPa to 100 kPa	**150PG** 0 psi to 150 psi
1.6BG 0 bar to 1.6 bar	**160KG** 0 kPa to 160 kPa	
2.5BG 0 bar to 2.5 bar	**250KG** 0 kPa to 250 kPa	
004BG 0 bar to 4 bar	**400KG** 0 kPa to 400 kPa	
006BG 0 bar to 6 bar	**600KG** 0 kPa to 600 kPa	
010BG 0 bar to 10 bar	**001GG** 0 kPa to 1 MPa	

[1]The transfer function limits define the output of the sensor at a given pressure input. By specifying Pmin. and Pmax., the output at Pmin. and Pmax., the complete transfer function Of the sensor is defined. See the graphical representations of the transfer function in the product datasheet, FIgure 2. For other available transfer functions contact Honeywell Customer Service.
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[6]Options T and V are only available on pressure ranges ±60 mbar to ±10 bar I ±6 kPa to ±1 MPa I ±1 psi to ±150 psi.

HSC Series—High Accuracy, Compensated/Amplified
SSC Series—Standard Accuracy, Compensated/Amplified

Issue F

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⚠ 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.

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	+44 (0) 1698 481676 Fax
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	+1-305-883-8257 Fax
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	+1-815-235-6847
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