



Automotive Test Solutions

**-30 HG
to
5000 PSI**

PRESSURE



TRANSducers

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Automotive **Vacuum** and
Pressure Transducers

Pressure Transducer Voltage Range Charts



Automotive Test Solutions Inc.

www.AutomotiveTestSolutions.com

1-800-572-6112



ATS Pressure Transducer Chart 20" H₂O

Transducer	Typical Voltage Offset	Conversion Multiplier
20" H ₂ O (Tail Pipe Sensor)	2.25 V	pos values (H ₂ O x 0.1) + 2.25 = voltage neg values 2.25 - (H ₂ O x 0.1) = voltage

The 20" H₂O Pressure Transducer will convert physical pressure to a voltage reading. This voltage reading will need to be converted from voltage to pressure. The following chart converts the voltage reading into the actual pressure value.

Voltage must be set to 2.25 V for reading to be valid.

4.25 = 20" HG	2.85 = 6" HG	1.45 = -8" HG
4.15 = 19" HG	2.75 = 5" HG	1.35 = -9" HG
4.05 = 18" HG	2.65 = 4" HG	1.25 = -10" HG
3.95 = 17" HG	2.55 = 3" HG	1.15 = -11" HG
3.85 = 16" HG	2.45 = 2" HG	1.05 = -12" HG
3.75 = 15" HG	2.35 = 1" HG	0.95 = -13" HG
3.65 = 14" HG	2.25 = 0" HG	0.85 = -14" HG
3.55 = 13" HG	2.15 = -1" HG	0.75 = -15" HG
3.45 = 12" HG	2.05 = -2" HG	0.65 = -16" HG
3.35 = 11" HG	1.95 = -3" HG	0.55 = -17" HG
3.25 = 10" HG	1.85 = -4" HG	0.45 = -18" HG
3.15 = 9" HG	1.75 = -5" HG	0.35 = -19" HG
3.05 = 8" HG	1.65 = -6" HG	0.25 = -20" HG
2.95 = 7" HG	1.55 = -7" HG	

WARNING! This sensor's maximum limit is 20" H₂O. This limit should not be exceeded. Damage to the sensor will result. BODILY INJURY or DEATH could also result.



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ATS Pressure Transducer Chart **-30" HG** (Vacuum)

Transducer	Typical Voltage Offset	Conversion Multiplier
-30" HG	0.50 V	voltage x 7.5 = "HG

The -30" HG Pressure Transducer will convert physical pressure to a voltage reading. This voltage reading will need to be converted from voltage to pressure. The following chart converts the voltage reading into the actual pressure value.

Example: 1.3 volts x 7.5 = 9.75" HG

Zero button must be 'ON' for readings to be valid.

0.0 V = 0.00" HG	1.4 V = 10.50" HG	2.8 V = 21.00" HG
0.1 V = 0.75" HG	1.5 V = 11.25" HG	2.9 V = 21.75" HG
0.2 V = 1.50" HG	1.6 V = 12.00" HG	3.0 V = 22.50" HG
0.3 V = 2.25" HG	1.7 V = 12.75" HG	3.1 V = 23.25" HG
0.4 V = 3.00" HG	1.8 V = 13.50" HG	3.2 V = 24.00" HG
0.5 V = 3.75" HG	1.9 V = 14.25" HG	3.3 V = 24.75" HG
0.6 V = 4.50" HG	2.0 V = 15.00" HG	3.4 V = 25.50" HG
0.7 V = 5.25" HG	2.1 V = 15.75" HG	3.5 V = 26.25" HG
0.8 V = 6.00" HG	2.2 V = 16.50" HG	3.6 V = 27.00" HG
0.9 V = 6.75" HG	2.3 V = 17.25" HG	3.7 V = 27.75" HG
1.0 V = 7.50" HG	2.4 V = 18.00" HG	3.8 V = 28.50" HG
1.1 V = 8.25" HG	2.5 V = 18.75" HG	3.9 V = 29.25" HG
1.2 V = 9.00" HG	2.6 V = 19.50" HG	4.0 V = 30.00" HG
1.3 V = 9.75" HG	2.7 V = 20.25" HG	

WARNING! This sensor's maximum limit is -30" HG. This limit should not be exceeded. Damage to the sensor will result. BODILY INJURY or DEATH could also result.

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ATS Pressure Transducer Chart **300 PSI**

Transducer	Typical Voltage Offset	Conversion Multiplier
300 PSI	0.50 V	voltage x 75 = PSI

The 300 PSI Pressure Transducer will convert physical pressure to a voltage reading. This voltage reading will need to be converted from voltage to pressure. The following chart converts the voltage reading into the actual pressure value.

Example: 1.3 volts x 75 = 97.50 PSI

Zero button must be 'ON' for readings to be valid.

0.0 V = 0.00 PSI	1.4 V = 105.00 PSI	2.8 V = 210.00 PSI
0.1 V = 7.50 PSI	1.5 V = 112.50 PSI	2.9 V = 217.50 PSI
0.2 V = 15.00 PSI	1.6 V = 120.00 PSI	3.0 V = 225.00 PSI
0.3 V = 22.50 PSI	1.7 V = 127.50 PSI	3.1 V = 232.50 PSI
0.4 V = 30.00 PSI	1.8 V = 135.00 PSI	3.2 V = 240.00 PSI
0.5 V = 37.50 PSI	1.9 V = 142.50 PSI	3.3 V = 247.50 PSI
0.6 V = 45.00 PSI	2.0 V = 150.00 PSI	3.4 V = 255.00 PSI
0.7 V = 52.50 PSI	2.1 V = 157.50 PSI	3.5 V = 262.50 PSI
0.8 V = 60.00 PSI	2.2 V = 165.00 PSI	3.6 V = 270.00 PSI
0.9 V = 67.50 PSI	2.3 V = 172.50 PSI	3.7 V = 277.50 PSI
1.0 V = 75.00 PSI	2.4 V = 180.00 PSI	3.8 V = 285.00 PSI
1.1 V = 82.50 PSI	2.5 V = 187.50 PSI	3.9 V = 292.50 PSI
1.2 V = 90.00 PSI	2.6 V = 195.00 PSI	4.0 V = 300.00 PSI
1.3 V = 97.50 PSI	2.7 V = 202.50 PSI	

WARNING! This sensor's maximum limit is 300 PSI. This limit should not be exceeded. Damage to the sensor will result. BODILY INJURY or DEATH could also result.



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ATS Pressure Transducer Chart **500 PSI**

Transducer	Typical Voltage Offset	Conversion Multiplier
500 PSI	0.50 V	voltage x 125 = PSI

The 500 PSI Pressure Transducer will convert physical pressure to a voltage reading. This voltage reading will need to be converted from voltage to pressure. The following chart converts the voltage reading into the actual pressure value.

Example: 1.3 volts x 125 = 162.50 PSI

Zero button must be 'ON' for readings to be valid.

0.0 V = 0.00 PSI	1.4 V = 175.00 PSI	2.8 V = 350.00 PSI
0.1 V = 12.50 PSI	1.5 V = 187.50 PSI	2.9 V = 362.50 PSI
0.2 V = 25.00 PSI	1.6 V = 200.00 PSI	3.0 V = 375.00 PSI
0.3 V = 37.50 PSI	1.7 V = 212.50 PSI	3.1 V = 387.50 PSI
0.4 V = 50.00 PSI	1.8 V = 225.00 PSI	3.2 V = 400.00 PSI
0.5 V = 62.50 PSI	1.9 V = 237.50 PSI	3.3 V = 412.50 PSI
0.6 V = 75.00 PSI	2.0 V = 250.00 PSI	3.4 V = 425.00 PSI
0.7 V = 87.50 PSI	2.1 V = 262.50 PSI	3.5 V = 437.50 PSI
0.8 V = 100.00 PSI	2.2 V = 275.00 PSI	3.6 V = 450.00 PSI
0.9 V = 112.50 PSI	2.3 V = 287.50 PSI	3.7 V = 462.50 PSI
1.0 V = 125.00 PSI	2.4 V = 300.00 PSI	3.8 V = 475.00 PSI
1.1 V = 137.50 PSI	2.5 V = 312.50 PSI	3.9 V = 487.50 PSI
1.2 V = 150.00 PSI	2.6 V = 325.00 PSI	4.0 V = 500.00 PSI
1.3 V = 162.50 PSI	2.7 V = 337.50 PSI	

WARNING! This sensor's maximum limit is 500 PSI. This limit should not be exceeded. Damage to the sensor will result. BODILY INJURY or DEATH could also result.



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ATS Pressure Transducer Chart **5000 PSI**

Transducer	Typical Voltage Offset	Conversion Multiplier
5000 PSI	0.50 V	voltage x 1250 = PSI

The 5000 PSI Pressure Transducer will convert physical pressure to a voltage reading. This voltage reading will need to be converted from voltage to pressure. The following chart converts the voltage reading into the actual pressure value.

Example: 1.3 volts x 1250 = 1625.00 PSI

Zero button must be 'ON' for readings to be valid.

0.0 V = 0.00 PSI	1.4 V = 1750.00 PSI	2.8 V = 3500.00 PSI
0.1 V = 125.00 PSI	1.5 V = 1875.00 PSI	2.9 V = 3625.00 PSI
0.2 V = 250.00 PSI	1.6 V = 2000.00 PSI	3.0 V = 3750.00 PSI
0.3 V = 375.00 PSI	1.7 V = 2125.00 PSI	3.1 V = 3875.00 PSI
0.4 V = 500.00 PSI	1.8 V = 2250.00 PSI	3.2 V = 4000.00 PSI
0.5 V = 625.00 PSI	1.9 V = 2375.00 PSI	3.3 V = 4125.00 PSI
0.6 V = 750.00 PSI	2.0 V = 2500.00 PSI	3.4 V = 4250.00 PSI
0.7 V = 875.00 PSI	2.1 V = 2625.00 PSI	3.5 V = 4375.00 PSI
0.8 V = 1000.00 PSI	2.2 V = 2750.00 PSI	3.6 V = 4500.00 PSI
0.9 V = 1125.00 PSI	2.3 V = 2875.00 PSI	3.7 V = 4625.00 PSI
1.0 V = 1250.00 PSI	2.4 V = 3000.00 PSI	3.8 V = 4750.00 PSI
1.1 V = 1375.00 PSI	2.5 V = 3125.00 PSI	3.9 V = 4875.00 PSI
1.2 V = 1500.00 PSI	2.6 V = 3250.00 PSI	4.0 V = 5000.00 PSI
1.3 V = 1625.00 PSI	2.7 V = 3375.00 PSI	

WARNING! This sensor's maximum limit is 5000 PSI. This limit should not be exceeded. Damage to the sensor will result. BODILY INJURY or DEATH could also result.