

Pressure conversion table

	psi	atms.	"H ₂ O	mm H ₂ O	cm H ₂ O	oz/in ²	kg/cm ²	"Hg	mm Hg (Torr)	cm Hg	mbar	bar	Pa (N/m ²)	kPa	MPa
psi	1	0.0680	27.71	703.8	70.31	16	0.703	2.036	51.715	5.17	68.95	0.0689	6.894	6,895	0.0069
atms.	14.7	1	407.2	103.43	1033.23	235.1	1.033	29.92	760	76	1,013	1.013	101,325	101.3	0.1013
"H ₂ O	0.0361	0.00246	1	25.4	2.54	0.5775	0.00254	0.0735	1.866	0.187	2.488	0.00249	249.1	0.249	0.00025
mm H ₂ O	0.001421	0.000097	0.0394	1	0.1	0.0227	0.0001	0.00289	0.0735	0.00735	0.098	0.00098	9.8	0.0098	0.00001
cm H ₂ O	0.01422	0.000968	0.3937	10	1	0.227	0.001	0.0289	0.735	0.0735	0.98	0.00098	98	0.098	0.0001
oz/in ²	0.0625	0.00425	1.732	43.98	4.4	1	0.0044	0.1273	3.232	0.3232	4.31	0.00431	431	0.431	0.00043
kg/cm ²	14.22	0.968	394.1	10,010	1,000	227.6	1	28.96	735.6	73.56	980.7	0.981	98,067	98.07	0.0981
"Hg	0.4912	0.03342	13.61	345.7	34.57	7.858	0.0345	1	25.4	2.54	33.86	0.0339	3,386	3.386	0.00339
mm Hg (Torr)	0.01934	0.001316	0.536	13.61	1.36	0.31	0.00136	0.0394	1	0.1	1.333	0.001333	133.3	0.1333	0.000133
cm Hg	0.1934	0.01316	5.358	136.1	13.61	3.1	0.0136	0.394	10	1	13.33	0.01333	1,333	1.333	0.00133
mbar	0.0145	0.000987	0.4012	10.21	1.020	0.2321	0.00102	0.0295	0.75	0.075	1	0.001	100	0.1	0.0001
bar	14.504	0.987	401.9	10,210	1,020	232.1	1.02	29.53	750	75	1,000	1	100,000	100	0.1
Pa (N/m ²)	0.000145	0.00001	0.00402	0.102	0.0102	0.00232	0.00001	0.000295	0.0075	0.00075	0.01	0.00001	1	0.001	0.000001
kPa	0.14504	0.00987	4.019	102.07	10.207	2.321	0.0102	0.295	7.5	0.75	10	0.01	1,000	1	0.001
MPa	145.04	9.869	4,019	102,074	10,197	2,321	10.2	295.3	7,501	750	10,000	10	1,000,000	1,000	1



Process pressure, Hydrostatic, Differential pressure

Reliable and strong in service

As a responsible partner, VEGA delivers a comprehensive service: From the development of future-oriented technologies with one to one application consultation, through to support at setup and commissioning and cost-effective instrument operation. Even for the most challenging scenarios, VEGA can engineer the right solution to meet your application.

Services to save you money and time:

- Selection – expert, solution-oriented advice
- Delivery – fast order processing and supply
- Setup – simple installation and commissioning
- Operation – reliable level and pressure measurement
- Service – qualified support around the clock

Overview of pressure instrumentation

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Process pressure and hydrostatic		Electronic differential pressure		Differential pressure	Hydrostatic			Process pressure	
The specialist for extreme temperatures Hot and chemically aggressive media are measured very reliably by the VEGABAR 81 model.	The all-rounder The all-rounder VEGABAR 82, enables measurement of pressures and levels even in the most difficult processes.	The specialist for high pressure VEGABAR 83 is the first choice for process pressure or level measurement in processes with high pressures.	Electronic differential pressure made easy An innovative software and hardware concept makes it possible to combine any pair of sensors from the VEGABAR 80 series into an electronic differential pressure system.	Three sensors in one instrument In addition to the differential pressure, VEGADIF 65 continuously measures the level or the density, e.g. in pressurized vessels.	Submersible pressure transmitter for universal use The robust hydrostatic transmitters VEGABAR 86, 87 and VEGAWELL 52 continuously measure the levels in basins, tanks or wells.			Pressure transmitter for simple measuring tasks The compact designed process pressure transmitters VEGABAR 14 and 17 offer especially cost-effective solutions for measurement of gases, vapours and liquids.	
Measuring range -1 ... +1,000 bar	-1 ... +100 bar	-1 ... +1,000 bar	+0.025 ... +1,000 bar	-10 ... +10 mbar to -40 ... +40 bar	0 ... +25 bar	0 ... +25 bar	0 ... +60 bar	-1 ... +60 bar	-1 ... +1,000 bar
Deviation 0.2 %	0.2 %; 0.1 %; 0.05 %	0.2 %; 0.1 %; 0.075 %	0.2 %; 0.1 %; 0.05 %	0.15 %; 0.075 %	0.1 %	0.1 %	0.2 %; 0.1 %	0.3 %	0.5 %
Temperature range -90 ... +400 °C	-40 ... +150 °C	-40 ... +200 °C	-40 ... +400 °C	-40 ... +120 °C (basic version) -40 ... +400 °C (with chem. seal)	-20 ... +100 °C	-12 ... +100 °C	-20 ... +80 °C	-40 ... +100 °C	-40 ... +150 °C
Output signal 4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA, 4 ... 20 mA/HART, Profibus PA, Foundation Fieldbus, Modbus	4 ... 20 mA, 4 ... 20 mA/HART + PT100	4 ... 20 mA	4 ... 20 mA
Approvals ATEX, IEC, CSA, FM, Ship, Overfill protection, GOST	ATEX, IEC, CSA, FM, Ship, Overfill protection, GOST	ATEX, IEC, CSA, FM, Ship, Overfill protection, GOST	ATEX, IEC, CSA, FM, Ship, Overfill protection, GOST	ATEX, IEC, CSA, Overfill protection, GOST	ATEX, IEC, CSA, FM, Ship, Overfill protection, GOST	ATEX, IEC, CSA, FM, Ship, Overfill protection, GOST	ATEX, IEC, CSA, FM, Ship, Overfill protection, Drinking water	Ship	ATEX, Ship
VEGABAR 81 Process pressure transmitter with chemical seal system	VEGABAR 82 Process pressure transmitter with ceramic measuring cell	VEGABAR 83 Process pressure transmitter with metallic measuring cell	VEGABAR series 80 Electronic differential pressure system	VEGADIF 65 Differential pressure transmitter with metallic measuring cell	VEGABAR 86 Submersible pressure transmitter with ceramic measuring cell	VEGABAR 87 Submersible pressure transmitter with metallic measuring cell	VEGAWELL 52 Submersible pressure transmitter with ceramic measuring cell	VEGABAR 14 Compact pressure transmitter with ceramic measuring cell	VEGABAR 17 Compact pressure transmitter with metallic measuring cell
Your advantage <ul style="list-style-type: none"> Simple adaptation to process, as sensor is extremely versatile and configurable Reliable measurement at temperatures up to +400 °C High safety and reliability through proven technology 	<ul style="list-style-type: none"> High plant availability through maximum overload and vacuum resistance of the ceramic measuring cell Measurement right down to the last drop thanks to very small measuring ranges with high accuracy Low costs for maintenance and servicing due to wear-free ceramic measuring cell 	<ul style="list-style-type: none"> Excellent accuracy, even with fluctuating process temperatures High measurement certainty through vacuum-resistant design 	<ul style="list-style-type: none"> Combinations from the VEGABAR 80 series Universally applicable Wear-free ceramic measuring cell 	<ul style="list-style-type: none"> Measurement of extremely low differential pressures through high-precision data acquisition High operational reliability through integrated overload diaphragm Many applications possible thanks to wide selection of measuring ranges and process fittings 	<ul style="list-style-type: none"> High plant availability through maximum overload and high vacuum resistance of the measuring cells Low costs for maintenance and servicing due to wear-free ceramic measuring cell Fast response times for detection of rapidly changing liquid levels 			<ul style="list-style-type: none"> Easy integration in limited spaces Setup time is eliminated because sensor is factory calibrated according to customer specifications 	