ALLUNITCONVERSIONS · PRINTABLE REFERENCE

Pressure Conversion Chart

psi, kPa, bar, atm, Pa, MPa, mbar and Torr

For: Engineers, HVAC technicians, mechanics and cyclists

allunitconversions.com/pressure-conversion-chart
By Miguel Coelho · Edition 2.0
9 November 2026

EXACT DEFINITION	FORMULA	REVERSE	WORKED EXAMPLE
1 bar = 100 kPa; 1 atm = 101.325 kPa; 1 psi = 6.894 757 kPa	kPa = psi × 6.894 757	psi = kPa ÷ 6.894 757; psi = bar × 14.503 77	32 psi × 6.894757 = 220.6 kPa = 2.206 bar

Matrix values use 6 significant figures; tables are rounded as shown.

Factor matrix — 1 unit in every other unit

1 unit =	Pa	kPa	MPa	bar	mbar	atm	psi	Torr
1 Pa	1	0.001	1×10^{-6}	1×10^{-5}	0.01	9.86923×10^{-6}	1.45038×10^{-4}	0.00750062
1 kPa	1,000	1	0.001	0.01	10	0.00986923	0.145038	7.50062
1 MPa	1×10^{6}	1,000	1	10	10,000	9.86923	145.038	7,500.62
1 bar	100,000	100	0.1	1	1,000	0.986923	14.5038	750.062
1 mbar	100	0.1	1×10^{-4}	0.001	1	9.86923×10^{-4}	0.0145038	0.750062
1 atm	101,325	101.325	0.101325	1.01325	1,013.25	1	14.6959	760
1 psi	6,894.76	6.89476	0.00689476	0.0689476	68.9476	0.068046	1	51.7149
1 Torr	133.322	0.133322	1.33322×10^{-4}	0.00133322	1.33322	0.00131579	0.0193368	1

psi to kPa and bar (tyres, HVAC, hydraulics)

psi (psi)	Kilopascals (kPa)	Bar (bar)	psi (psi)	Kilopascals (kPa)	Bar (bar)	psi (psi)	Kilopascals (kPa)	Bar (bar)
1	6.9	0.069	**19**	131.0	1.310	**65**	448.2	4.482
2	13.8	0.138	**20**	137.9	1.379	**70**	482.6	4.826
3	20.7	0.207	**21**	144.8	1.448	**75**	517.1	5.171
4	27.6	0.276	**22**	151.7	1.517	**80**	551.6	5.516
5	34.5	0.345	**23**	158.6	1.586	**85**	586.1	5.861
6	41.4	0.414	**24**	165.5	1.655	**90**	620.5	6.205
7	48.3	0.483	**25**	172.4	1.724	**95**	655.0	6.550
8	55.2	0.552	**26**	179.3	1.793	**100**	689.5	6.895
9	62.1	0.621	**27**	186.2	1.862	**105**	723.9	7.239
10	68.9	0.689	**28**	193.1	1.931	**110**	758.4	7.584
11	75.8	0.758	**29**	199.9	1.999	**115**	792.9	7.929
12	82.7	0.827	**30**	206.8	2.068	**120**	827.4	8.274
13	89.6	0.896	**35**	241.3	2.413	**125**	861.8	8.618
14	96.5	0.965	**40**	275.8	2.758	**130**	896.3	8.963
15	103.4	1.034	**45**	310.3	3.103	**135**	930.8	9.308
16	110.3	1.103	**50**	344.7	3.447	**140**	965.3	9.653
17	117.2	1.172	**55**	379.2	3.792	**145**	999.7	9.997
18	124.1	1.241	**60**	413.7	4.137	**150**	1,034.2	10.342

bar to psi and kPa

Bar (bar)	psi (psi)	Kilopascals (kPa)	Bar (bar)	psi (psi)	Kilopascals (kPa)
0.5	7.25	50	**10.5**	152.29	1,050
1.0	14.50	100	**11.0**	159.54	1,100

Bar (bar)	psi (psi)	Kilopascals (kPa)
1.5	21.76	150
2.0	29.01	200
2.5	36.26	250
3.0	43.51	300
3.5	50.76	350
4.0	58.02	400
4.5	65.27	450
5.0	72.52	500
5.5	79.77	550
6.0	87.02	600
6.5	94.27	650
7.0	101.53	700
7.5	108.78	750
8.0	116.03	800
8.5	123.28	850
9.0	130.53	900
9.5	137.79	950
10.0	145.04	1,000

Bar (bar)	psi (psi)	Kilopascals (kPa)
11.5	166.79	1,150
12.0	174.05	1,200
12.5	181.30	1,250
13.0	188.55	1,300
13.5	195.80	1,350
14.0	203.05	1,400
14.5	210.30	1,450
15.0	217.56	1,500
15.5	224.81	1,550
16.0	232.06	1,600
16.5	239.31	1,650
17.0	246.56	1,700
17.5	253.82	1,750
18.0	261.07	1,800
18.5	268.32	1,850
19.0	275.57	1,900
19.5	282.82	1,950
20.0	290.08	2,000

Sources and method

- **BIPM SI Brochure, 9th edition** — Definitions of the SI units, including the kelvin (www.bipm.org/en/publications/si-brochure)
- **NIST Special Publication 811** — Guide for the Use of the International System of Units (www.nist.gov/pml/special-publication-811)

Every value on this sheet is generated by the AllUnitConversions conversion library and automatically checked against the exact definitions above before the PDF is produced. Interactive version, corrections and more charts: **allunitconversions.com/pressure-conversion-chart**