

ALL SS ELECTRIC CONTACT PRESSURE GAUGE

The label *Trafag Industrial Components* extends the Trafag brand name to instruments manufactured by qualified partner companies.

Trafag Industrial Components complement the genuine Trafag product range to offer customers a complete portfolio from one single source.

The TMP502 All Stainless Steel Pressure Gauge with bourdon tube sensing element offers a robust design with electric contact, High-version case.



Applications

- Pumps & motor controls
- Water treatment plants
- Hydraulic & pneumatics
- Chemical & petrochemicals
- Pharmaceutical industries
- Compressors & utilities

Features

- All SS measuring system
- Socket-case, direct welded
- CE marked contacts
- Liquid filled versions

Reference

- EN 837-1

Standard parameters	
Accuracy	CL 1.0
Ambient temperature	-40 ... + 65°C (without dampening liquid) -20 ... + 65°C (with dampening liquid)
Service temperature	200°C max
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value
Weld joint	TIG argon arc welding
Measuring range	-1 ... 0 bar, -600 ... 0 mbar to 0 ... 1600 bar

Ordering code

		TMP502 - XX - XXX - XX - XXX - XX - XXXX - XX - XXX - XX										
1. Dial size	100 mm / 4"			04								
	150 mm / 6"			06								
2. Range	Refer "Range Table"			XXX								
3. Mounting pattern	Direct, Bottom connection			B0								
	Wall/Surface/Projection mounting, Bottom connection			B1								
	2" Pipe/Yoke mounting, Bottom connection			B2								
	Lower, Back connection			L0								
	Panel/Front flange mounting, Lower Back connection			L1								
	Panel/bracket mounting, Lower Back connection			L2								
4. Process connection ¹	1/4" BSP (M)			12B								
	1/4" NPT (M)			12N								
	3/8" BSP (M)			13B								
	1/2" BSP (M)			14B								
	M20 X 1.5 mm (M)			14M								
	1/2" NPT (M)			14N								
5. Ingress protection	IP 65					ER						
6. Execution	Dry							EA				
	Dry but fillable, dielectric oil ²							EF				
	Dampening liquid, dielectric oil ²							EK				
7. Switch category	Precision contacts									RS		
8. Electric contact	Break contact (1NC)									CD1		
	Make contact (1NO)									CD2		
	2 x Break contact (2NC)									CD3		
	2 x Make contact (2NO)									CD4		
	1Break + 1 Make (1NC + 1NO)									CD5		
	1 Make + 1 Break (1NO + 1NC)									CD6		
	SPDT									CD7		
	DPDT									CD8		
9. Other options	Case & Ring in AISI 316 SS (B0)	BA	Dampened movement	GM	Tested to NACE standards	TN						
	Case & Ring in AISI 316 SS (B1)	BB	6 pin, M20x1.5 mm connector	G6	Certification for Oxygen service	TO						
	Case & Ring in AISI 316 SS (B2)	BC	Earth terminal	G7	SS tag plat, AISI 304 SS	XF						
	Case & Ring in AISI 316 SS (L0)	BK	Monel wetted parts	MN	SS tag plate, AISI 316 SS	XG						
	Case & Ring in AISI 316 SS (L1)	BL	Rubber parts, Viton	RA	Custom designed dial	XR						
	Case & Ring in AISI 316 SS (L2)	BM	Vent plug, ON-OFF type	RW	Dial tag marking	XT						
	Dampening screw, Monel	EM	5 - point calibration certificate	TA								
	Dampening screw, AISI 316 SS	EN	Material test certificate 3.1	TC								
	AISI 316 SS movement	GL	Material test certificate 2.2	TM								

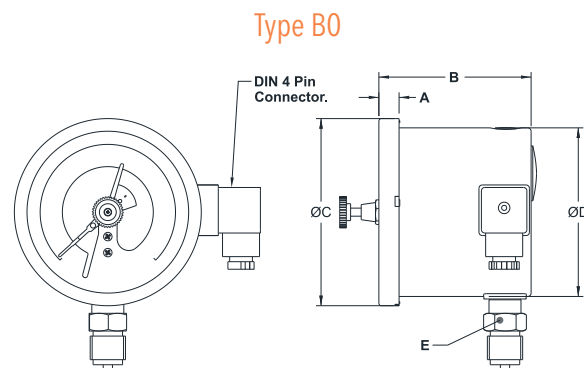
¹ For other connections, please contact factory.

² Rubber parts shall be in Viton.

Specifications			
Material of construction	Sensing element	Bourdon Tube (<100 bar : C - type , >100 bar : Helical)	
	Case & Ring material	AISI 304 SS (Bayonet type)	
	Bourdon tube & Shank	AISI 316L SS (Shank welded directly to case)	
	Movement mechanism	AISI 304 SS	
	Dial	Aluminum, black graduation on white background	
	Pointer	Fixed, aluminum, black powder coated	
	Gaskets, Blow off disc & filling plug	Neoprene / NBR	
	Window	Shatterproof safety glass	
	Standard specifications	Dial size	DN100 / DN150
		Range	-1 ... 0 to 0 ... 1600 bar
		Mounting pattern	Direct, Bottom connection
		Process connection	½" NPT (M) / ½" BSP (M)
		Ingress protection	IP 65
		Execution	Dry
		Switch	1NO; Make contact
		Electrical termination	4 pin PG 13.5 connector
Standard specifications : dampening liquid filled, glycerin		Window	Shatterproof safety glass
		Dampening liquid	Dielectric oil
	Gaskets, Blow off disc & filling plug	Viton	
Temperature effect	When temperature of the measuring system deviates from reference temperature (+20°C) max error ±0.8% / 10K of true scale value.		

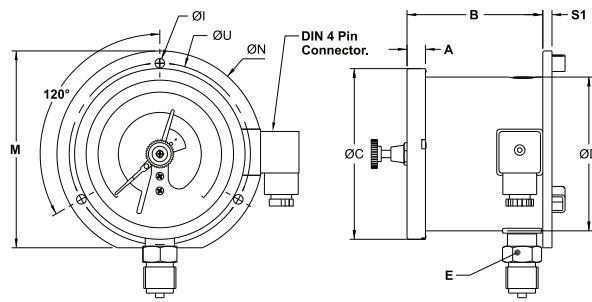
¹⁾ Gauge accuracy shall be CL 1.0. but switching accuracy shall be CL 5.0

Dimensions - All dimensions are in mm



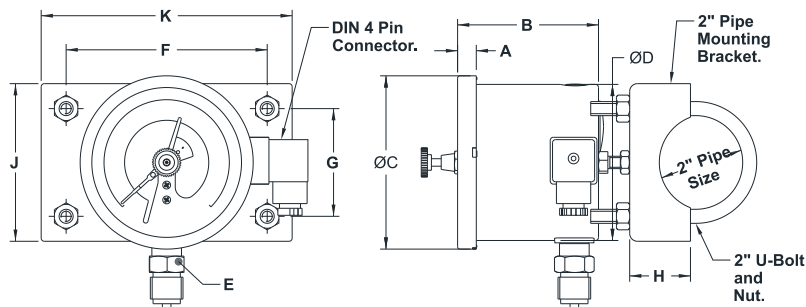
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	90	111	100	A/F-22	801
150	15	90	161	149	A/F-22	1195

Type B1



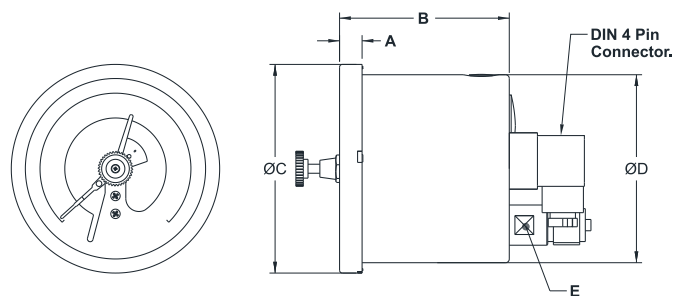
DN	A	B	ØC	ØD	E	ØI	M	ØN	S1	ØU	Weight (grams)
100	12	94	111	100	A/F22	6	128	134	6	118	908
150	15	94	161	149	A/F22	6	172,4	186	6	168	1375

Type B2



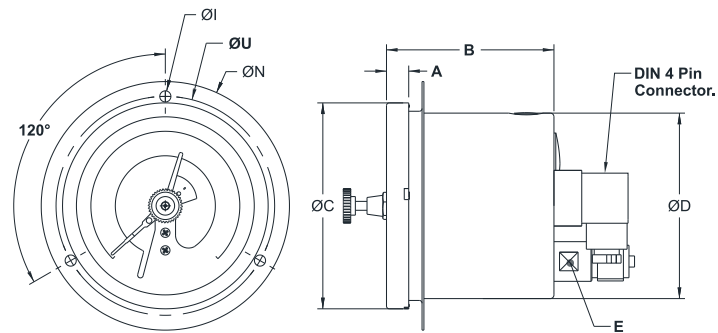
DN	A	B	ØC	ØD	E	F	G	H	J	K	Weight (grams)
100	12	90	111	100	A/F22	129	69	39	101	161	1875
150	15	90	161	149	A/F22	129	69	39	101	161	2269

Type L0



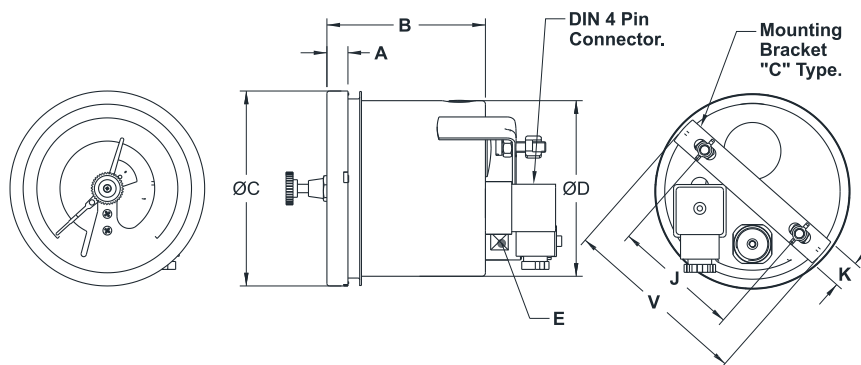
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	90	111	100	A/F17	801
150	15	90	161	149	A/F17	1195

Type L1



DN	A	B	ØC	ØD	E	ØI	ØN	ØU	Weight (grams)
100	12	90	111	100	A/F17	6	134	118	833
150	15	90	161	149	SQ.22	6	186	168	1269

Type L2



DN	A	B	ØC	ØD	E	J	K	V	Weight (grams)
100	12	90	111	100	A/F 17	72	16	108	813
150	15	90	161	149	A/F 17	106,5	16	158,5	1284

Standard Ranges				Standard Ranges		Standard Ranges		Standard Ranges		Standard Ranges	
RANGE	bar	Kg/cm ²	bar/psi	RANGE	psi	RANGE	kPa	RANGE	MPa	RANGE	mbar
0 ... 0.6	B01	K01	N01	0 ... 10	S01	0 ... 60	E01	-	-	-600 ... 0	B00
0 ... 1	B02	K02	N02	0 ... 15	S02	0 ... 100	E02	0 ... 0.1	M02	-	-
0 ... 1.6	B03	K03	N03	0 ... 25	S03	0 ... 160	E03	0 ... 0.16	M03	-	-
0 ... 2.5	B05	K05	N05	0 ... 35	S05	0 ... 250	E05	0 ... 0.25	M05	-	-
0 ... 4	B06	K06	N06	0 ... 60	S06	0 ... 600	E06	0 ... 0.4	M06	-	-
0 ... 6	B07	K07	N07	0 ... 90	S07	0 ... 600	E07	0 ... 0.6	M07	-	-
0 ... 7	B08	K08	N08	0 ... 100	S08	0 ... 700	E08	0 ... 0.7	M08	-	-
0 ... 10	B09	K09	N09	0 ... 150	S09	0 ... 1000	E09	0 ... 1	M09	-	-
0 ... 16	B11	K11	N11	0 ... 235	S11	0 ... 1600	E11	0 ... 1.6	M11	-	-
0 ... 25	B13	K13	N13	0 ... 365	S13	0 ... 2500	E13	0 ... 2.5	M13	-	-
0 ... 40	B16	K16	N16	0 ... 600	S16	0 ... 4000	E16	0 ... 4	M16	-	-
0 ... 60	B17	K17	N17	0 ... 870	S17	0 ... 6000	E17	0 ... 6	M17	-	-
0 ... 70	B18	K18	N18	0 ... 1000	S18	0 ... 7000	E18	0 ... 7	M18	-	-
0 ... 100	B19	K19	N19	0 ... 1500	S19	0 ... 10000	E19	0 ... 10	M19	-	-
0 ... 160	B21	K21	N21	0 ... 2300	S21	0 ... 16000	E21	0 ... 16	M21	-	-
0 ... 250	B24	K24	N24	0 ... 3600	S24	0 ... 25000	E24	0 ... 25	M24	-	-
0 ... 400	B27	K27	N27	0 ... 6000	S27	0 ... 40000	E27	0 ... 40	M27	-	-
0 ... 600	B29	K29	N29	0 ... 8700	S29	0 ... 60000	E29	0 ... 60	M29	-	-
0 ... 700	B30	K30	N30	0 ... 10000	S30	0 ... 70000	E30	0 ... 70	M30	-	-
0 ... 1000	B31	K31	N31	0 ... 15000	S31	-	-	0 ... 100	M31	-	-
0 ... 1600	B34	K34	N34	0 ... 23200	S34	-	-	0 ... 160	M34	-	-
-1 ... 0	B37	K37	N37	-30 ... 0 ¹	S37	-100 ... 0	E37	-0.1 ... 0	M37	-	-
-1 ... 0.6	B38	K38	N38	-30 ... 10 ¹	S38	-100 ... 60	E38	-0.1 ... 0.06	M38	-	-
-1 ... 1.5	B39	K39	N39	-30 ... 20 ¹	S39	-100 ... 150	E39	-0.1 ... 0.15	M39	-	-
-1 ... 3	B42	K42	N42	-30 ... 45 ¹	S42	-100 ... 300	E42	-0.1 ... 0.3	M42	-	-
-1 ... 5	B43	K43	N43	-30 ... 75 ¹	S42	-100 ... 500	E43	-0.1 ... 0.5	M43	-	-
-1 ... 9	B45	K45	N45	-30 ... 130 ¹	S45	-100 ... 900	E45	-0.1 ... 0.9	M45	-	-
-1...15	B47	K47	N47	-30 ... 220 ¹	S47	-100 ... 1500	E47	-0.1 ... 1.5	M47	-	-
-1...24	B49	K49	N49	-30 ... 350 ¹	S49	-100 ... 2400	E49	-0.1 ... 2.4	M49	-	-

General notes

- Other scales & measurement units are available.
- Equivalent scales available in kg/cm², psi, kPa, MPa, bar/psi, kPa/bar, kPa/psi or any other special scales.
- Primary scales shall be in "BLACK" and secondary scales shall be "RED".
- Special scales, custom dial designs, OEM/private logo printing is available, details contact our marketing team.
- Any other range codes which are not available in the list shall be confirmed by factory.

Technical note

- In compound ranges, negative pressures are marked in In Hg, hence for example for -1 to 1 bar the corresponding scale shall be -30" Hg to 15 psi.

Additional information			
Documents	Data sheet	H20010	www.trafag.com/H20010
	Instructions	H21001	www.trafag.com/H21001