

# HIGH SAFETY 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 TMP201 High Safety Pressure Gauge is equipped with a solid front with full blow-out back.



## Applications

- Oil & Gas applications
- High pressure applications
- Corrosive & Hazardous environments

### Features

- Safety pattern type
- All stainless steel system
- Dry / liquid filled
- CE marking

### Reference

- EN 837-1
- PED 97/23/EC
- ATEX 2014/34/UE

Standard parameters	
Accuracy	CL 1.0
Ambient temperature	-40 ... + 65°C (without dampening liquid) -20 ... + 65°C (with dampening liquid)
Service temperature	300°C max
Pressure limits	Steady pressure up to FS value Fluctuating pressure up to 90% of FS value Short time 1.3 x FS value for range up to 100 bar Short time 1.15 x FS value for range above 100 bar
Measuring range	-1 ... 0 bar, -600 ... 0 mbar to 0 ... 1600 bar
Weld joints	TIG argon arc welding

## Ordering code

		TMP201 - XX - XXX - XX - XXX - XX - XX - 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			
	Panel/Front flange mounting, Lower Back connection				L1			
4. Process connection <sup>1</sup>	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
	IP 66							ES
	IP 67							ET
6. Execution	Dry							EA
	Dry but fillable							EB
	Dampening liquid filled, glycerine							EG
	Dampening liquid filled, silicon oil							EH
7. Other options	Case & Ring in AISI 316 SS (B0)	BA	Knife edge pointer	GX	Helium leak testing			TL
	Case & Ring in AISI 316 SS (B1)	BB	Monel wetted parts	MN	Material test certificate 2.2			TM
	Case & Ring in AISI 316 SS (B2)	BC	Overrange protection 1.5xFS	OP	Tested to NACE standards			TN
	Case & Ring in AISI 316 SS (L1)	BL	High overpressure protection <sup>5</sup>	OS	Certification for Oxygen service			TO
	Dampening screw, Monel	EM	Epoxy coating (Case & Ring)	P8	Performance test			TP
	Dampening screw, AISI 316 SS	EN	Receiver gauge <sup>3</sup>	R9	C.C. with NABL traceability <sup>4</sup>			TT
	Internal overload stop	EX	Rubber parts, NBR	RN	Accuracy CL 0.5 / CL 0.6 of FS			XA
	Internal vacuum stop	EY	Vent plug, ON-OFF type	RW	SS tag plate, AISI 304 SS			XF
	Pointer stop on dial	EZ	5 - point calibration certificate	TA	SS tag plate, AISI 316 SS			XG
	AISI 316 SS movement	GL	Material test certificate 3.1	TC	Custom designed dial			XR
	Dampened movement	GM	CE certificate	TE	Dial tag marking			XT
	Maximum Reading pointer <sup>2</sup>	GW	IBR certification	TI	ATEX Version <sup>6</sup>			AX

<sup>1</sup> For other connections, please contact factory.

<sup>2</sup> Available in dry version only with accuracy CL 1.0 or above.

<sup>3</sup> Please specify the second scale required.

<sup>4</sup> C.C. = Calibration Certificate

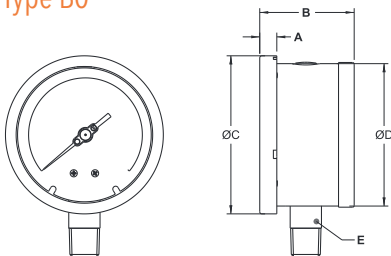
<sup>5</sup> Refer Range V/s Overpressure table.

<sup>6</sup>  II 2 G Ex h IIC T6...T3 Gb X  
II 2 D Ex h IIIC T85°C...T200°C Db X

Specifications		
<b>Material of construction</b>	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	Micro-zero adjustable, aluminum, black powder coated
	Gaskets, Blow off disc & filling plug	Neoprene / NBR
	Window	Shatterproof safety glass
	Blow off disc	AISI 304 SS
	Diaphragm	NBR
<b>Standard specifications</b>	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 but fillable
	Window	Shatterproof safety glass
<b>Standard specifications : dampening liquid filled, glycerin</b>	Dampening liquid	Glycerin 99.7% [Service temperature up to 65°C]
	<b>Temperature effect</b>	When temperature of the measuring system deviates from reference temperature (+20°C) max error ±0.4% / 10K of true scale value.

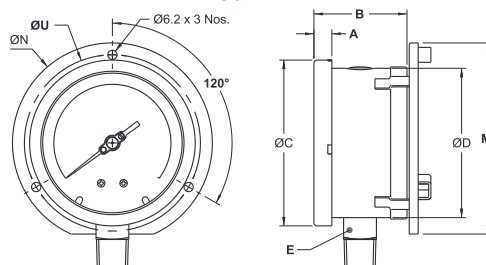
## Dimensions - All dimensions are in mm

### Type B0



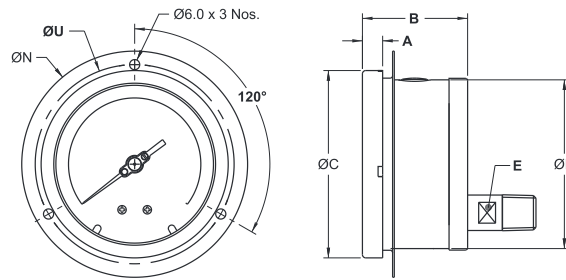
DN	A	B	ØC	ØD	E	Weight (grams)
100	12	66,5	111	100	SQ.22	830
150	17	58,5	161	149	SQ.22	1638

### Type B1



DN	A	B	ØC	ØD	E	M	ØN	ØU	Weight (grams)
100	12	66,5	111	100	SQ.22	128	134	118	909
150	17	68,5	161	149	SQ.22	172	186	168	1746

## Type L1



DN	A	B	ØC	ØD	E	ØN	ØU	Weight (grams)
100	12	66,5	111	100	A/F-17	134	118	906
150	17	68,5	161	149	A/F-17	186	168	1754

### Range v/s over range in bar

RANGE	OVER RANGE
0 ... 1	4
0 ... 1.6	6
0 ... 2.5	10
0 ... 4	16
0 ... 6	25
0 ... 10	40
0 ... 16	48
0 ... 25	75
0 ... 40	80
0 ... 60	120
0 ... 100	200
0 ... 160	320
0 ... 250	500
0 ... 400	800
0 ... 600	1200

Standard Ranges				Standard Ranges		Standard Ranges		Standard Ranges		Standard Ranges	
RANGE	bar	Kg/cm <sup>2</sup>	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 <sup>1</sup>	S37	-100 ... 0	E37	-0.1 ... 0	M37	-	-
-1 ... 0.6	B38	K38	N38	-30 ... 10 <sup>1</sup>	S38	-100 ... 60	E38	-0.1 ... 0.06	M38	-	-
-1 ... 1.5	B39	K39	N39	-30 ... 20 <sup>1</sup>	S39	-100 ... 150	E39	-0.1 ... 0.15	M39	-	-
-1 ... 3	B42	K42	N42	-30 ... 45 <sup>1</sup>	S42	-100 ... 300	E42	-0.1 ... 0.3	M42	-	-
-1 ... 5	B43	K43	N43	-30 ... 75 <sup>1</sup>	S42	-100 ... 500	E43	-0.1 ... 0.5	M43	-	-
-1 ... 9	B45	K45	N45	-30 ... 130 <sup>1</sup>	S45	-100 ... 900	E45	-0.1 ... 0.9	M45	-	-
-1...15	B47	K47	N47	-30 ... 220 <sup>1</sup>	S47	-100 ... 1500	E47	-0.1 ... 1.5	M47	-	-
-1...24	B49	K49	N49	-30 ... 350 <sup>1</sup>	S49	-100 ... 2400	E49	-0.1 ... 2.4	M49	-	-

### General notes

- Other scales & measurement units are available.
- Equivalent scales available in kg/cm<sup>2</sup>, 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	H20005	<a href="http://www.trafag.com/H20005">www.trafag.com/H20005</a>
	Instructions	H21001	<a href="http://www.trafag.com/H21001">www.trafag.com/H21001</a>