

Pressure gauge

stainless steel liquid filled case
ATEX-design case dim 100 mm



E 02.09.04

Ed.24.01

Application	Pressure gauge in stainless steel version with liquid filled case. Suitable for aggressive media and environments. ATEX-design
Design	EN 837-1 ATEX
Series	2990
WIKA model	233.50.100 ATEX
Case size	Nominal size dim 100 mm
Accuracy	Class 1,0%
Case	Stainless steel 1.4301 with bayonet ring Option with case in stainless steel 316T1 Option with epoxy- or PTFE-coating
Filling	Filling glycerine 99,7% (86,5% pressure ranges $\leq 2,5$ bar) Compensating valve to vent case in pressure ranges ≤ 16 bar Option with silicone oil or glycerine for food applications
Window	Laminated safety glass. Option with polycarbonate
Pressure element	Stainless steel 316L
Movement	Stainless steel
Dial	Aluminium, white with black lettering
Pressure unit	Bar. Option with unit bar/Pa, bar/psi, kPa, MPa, psi
Pressure connection	G3/8", G1/2" or 1/2"NPT male. Option G1/4" or 1/4"NPT Option with mounted restrictor
Mounting	Lower or back mount, also with back flange, front flange or triangular bezel with clamp
Ex ATEX	Explosion protection ATEX Ex h Gas II 2G Ex h IIC T6-T1 Gb X Dust II 2D Ex h IIIC T85°C-T450°C Db X
Ingress protection	IP 65 acc.to EN 60529/IEC 529
Pressure limitation	Full scale value by steady pressure 90% of full scale value by fluctuating pressure By short time pressure 1,3 x of full scale value Option with overpressure safe 2 x full scale value
Permissible temperature	Medium temperature max +100°C Ambient temperature -20+60°C Option: Ambient temperature -40+60°C with filling silicone M50
Certificates	Certificate EN 10204 can be delivered as options Test report wetted parts EN 10204-2.2 Inspection certificate wetted parts EN 10204-3.1
Calibration	Option with accredited calibration with calibration certificate according to ISO/IEC 17025:2018 (SWEDAC)
Production options	Design acc.to NACE Sour Gas Service Design Degreased for oxygen services Silicone free design



2890
Lower mount



2891
Back mount



2895
Lower mount
back flange



2897
Back mount
front flange



2898
Back mount
bezel and clamp



2899
Lower mount
front flange

Pressure gauge

stainless steel liquid filled case
ATEX-design case dim 100 mm

E 02.09.04



Pressure range	Interval	Divisions
0-0,6 bar	0,01	60
0-1 bar	0,02	50
0-1,6 bar	0,05	32
0-2,5 bar	0,05	50
0-4 bar	0,1	40
0-6 bar	0,1	60
0-10 bar	0,2	50
0-16 bar	0,5	32
0-25 bar	0,5	50
0-40 bar	1,0	40
0-60 bar	1,0	60
0-100 bar	2,0	50
0-160 bar	5,0	32
0-250 bar	5,0	50
0-400 bar	10,0	40
0-600 bar	10,0	60
0-1000 bar	20,0	50
-1/0 bar	0,02	50
-1/+1,5 bar	0,05	50
-1/+3 bar	0,1	40
-1/+5 bar	0,1	60
-1/+9 bar	0,2	50
-1/+15 bar	0,5	50
-1/+24 bar	0,5	50

Accuracy

Max permissible error 1,0%

The accuracy is expressed as a percentage of full scale range. Permissible error 1,0% will cover 0% till 100% of scale range with a reference temperature of +20°C.

Ex. Pressure range 0-10 bar has an error of $\pm 0,1$ bar

Temperature effect

Temperature of the measuring system over or under the reference temperature +20°C will effect the accuracy with 0,4 percentage per +10°C. With a medium temperature of +40°C the accuracy will be $\pm 1,8\%$.

Alternative design

Low pressure

Pressure range < 0-0,6 bar

Pressure range from 2,5 mbar to 400 mbar

Type 2860 datasheet E02.17.01

Test gauge

Pressure gauge for testing and calibration 0,6%

Type 332.50 enligt datablad PM 03.06

Safety version

Safety version EN 837-1 (S3) with

solid baffle wall behind the dial, blow out back

Type 233.30.100 datasheet E02.10.01

With electrical contact

One or two electrical contact mounted in the case

Max- and/or minfunction

Type PGS23.100 datasheet E02.53.01






Pressure gauge

stainless steel liquid filled case

ATEX-design case dim 100 mm

E 02.09.04



Code number case dim 100 mm unit Bar					
	2990	2990	2990	2995	2995
Mounting	Lower	Lower	Lower	Back flange	Back flange
Connection	G3/8"	G1/2"	1/2"NPT	G3/8"	G1/2"
0-0,6 bar	29904001	29904401	29905001	29954001	29954401
0-1 bar	29904002	29904402	29905002	29954002	29954402
0-1,6 bar	29904003	29904403	29905003	29954003	29954403
0-2,5 bar	29904004	29904404	29905004	29954004	29954404
0-4 bar	29904006	29904406	29905006	29954006	29954406
0-6 bar	29904007	29904407	29905007	29954007	29954407
0-10 bar	29904008	29904408	29905008	29954008	29954408
0-16 bar	29904011	29904411	29905011	29954011	29954411
0-25 bar	29904013	29904413	29905013	29954013	29954413
0-40 bar	29904015	29904415	29905015	29954015	29954415
0-60 bar	29904017	29904417	29905017	29954017	29954417
0-100 bar	29904019	29904419	29905019	29954019	29954419
0-160 bar	29904020	29904420	29905020	29954020	29954420
0-250 bar	29904022	29904422	29905022	29954022	29954422
0-400 bar	29904024	29904424	29905024	29954024	29954424
0-600 bar	29904025	29904425	29905025	29954025	29954425
-1/0 bar	29904040	29904440	29905040	29954040	29954440
-1/+1,5 bar	29904066	29904466	29905066	29954066	29954466
-1/+3 bar	29904067	29904467	29905067	29954067	29954467
-1/+5 bar	29904068	29904468	29905068	29954068	29954468
-1/+9 bar	29904069	29904469	29905069	29954069	29954469
-1/+15 bar	29904071	29904471	29905071	29954071	29954471
-1/+24 bar	29904072	29904472	29905072	29954072	29954472

Pressure gauge

stainless steel liquid filled case

ATEX-design case dim 100 mm




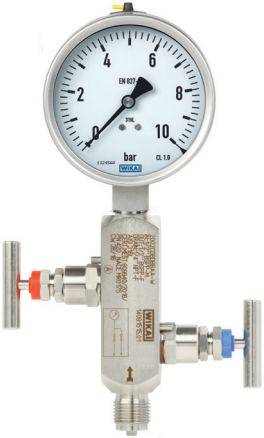


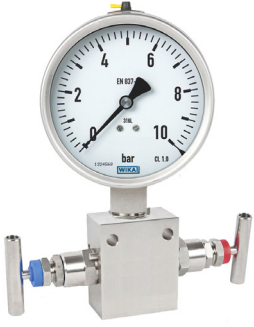



E 02.09.04

Pressure gauge with Instrument Needle valve and Block-and-bleed valve

Material body stainless steel 316L
With or without mounting bracket hole
Material packing PTFE or Graphite
Nominal pressure 6000 psi / 420 bar

With or without vent connection
NACE Sour Gas Service
Inspection certificate 3.1 EN 10204
all wetted parts material

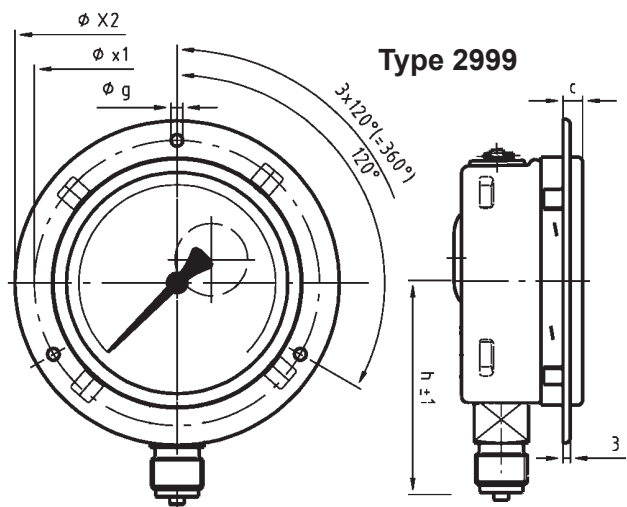
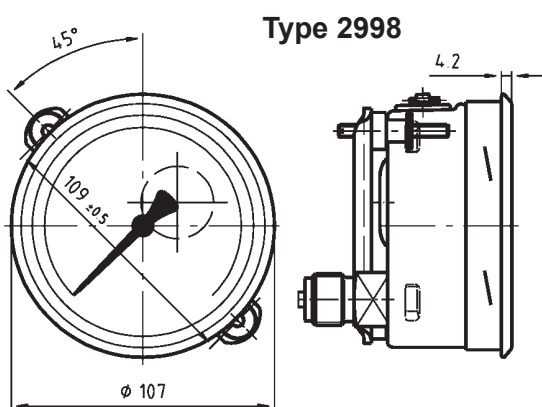
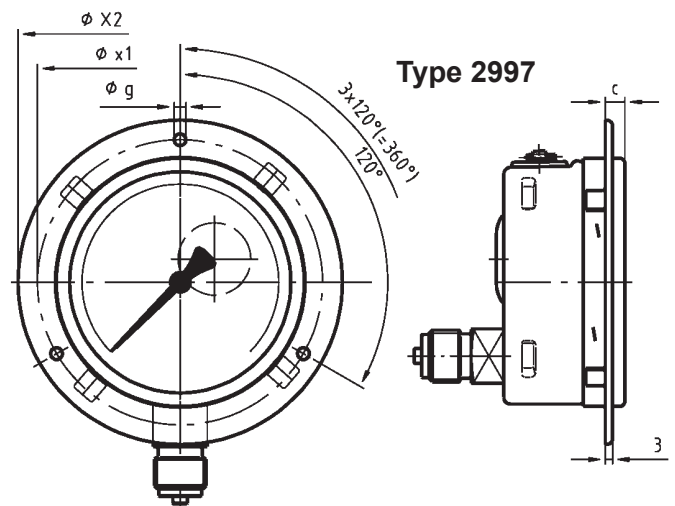
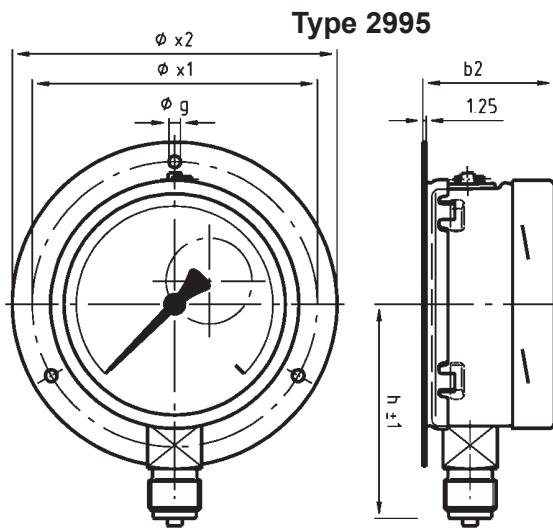
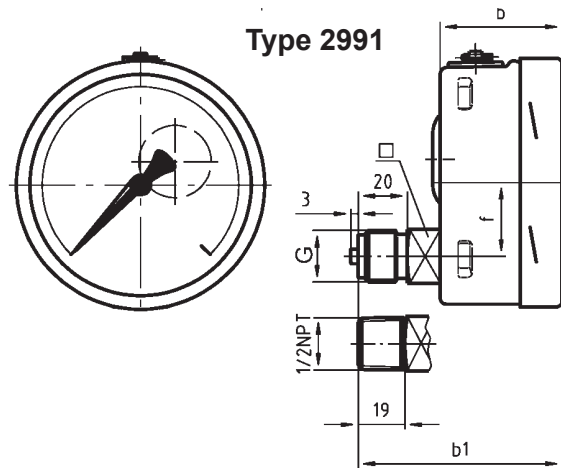
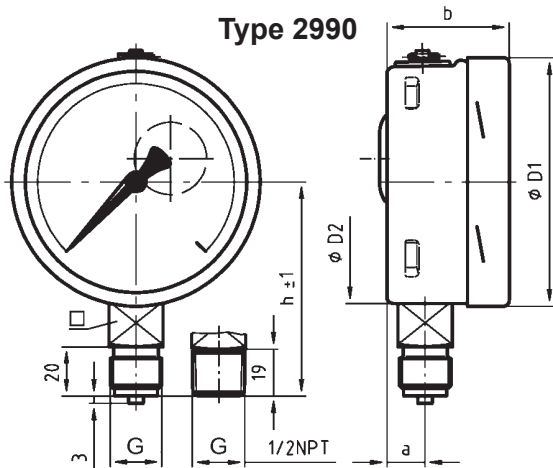
IV10	IV11	IV201	IV202
Needle valve	Needle valve	Block-and-bleed valve	Block-and-bleed valve
Standard	Multiport	Square form angled	Square form in-line
Female x female/male	Female x female/male	Female x female/male	Female x female/male
			

IV212	IV211	IVM2	IBF1
Block-and-bleed valve	Block-and-bleed valve	Monoflange	Monoblock
Flat form in-line	Flat form angled	Flange connection	Flange connection
Female x female	Female x female	Different versions	Different versions
			

Pressure gauge

stainless steel liquid filled case
ATEX-design case dim 100 mm

E 02.09.04



Dim Ø	a	b	b ₁	b ₂	D ₁	D ₂	x1	x2	g	h±1	f	c	kg	G
100	15,5	49,5	83	53,5	101	99	116	132	4,8	87	30	8	0,6	G3/8-G1/2-1/2NPT
160	15,5	49,5 ¹⁾	83 ¹⁾	53,5	161	159	178	196	5,8	118	50	10	1,1	G3/8-G1/2-1/2NPT

¹⁾ From 100 bar b = 65,5 mm and b₁ = 99 mm