

Pressure gauge

stainless steel, liquid filled series 2940

case dim 160 mm

E 02.09.03

Ed.23.02

Application	Pressure gauge in stainless steel with liquid filling Suitable for aggressive media and environments where pulsation and vibration exist
Design	EN 837-1
Series	2940
WIKA model	233.50
Case size	Nominal size dim 160 mm
Accuracy	Class 1,0%
Case	Stainless steel 1.4301 with bayonet ring Option with case in stainless steel 316Ti 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
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	Explosion protection ATEX Ex h Design acc.to NACE Sour Gas Service Pressure element in monel (type 263.50) Silicone free design Dial with colored sectors or with customer logo



2940
Lower mount



2941
Back mount



2945
Lower mount
back flange



2947*
Back mount
front flange



2948
Back mount
bezel and clamp



2949
Lower mount
front flange

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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 ambient temperature

Special design for ambient temperature down to -70°C

Filling Silicone oil

Type PG23LT datasheet PM 02.22

Low pressure

Pressure range < 0-0,6 bar

Pressure range from 2,5 mbar to 400 mbar

Type 2960 datasheet E02.17.01

High pressure

Pressure range > 0-1000 bar

Pressure range 0-1600 bar or 0-2500 bar

Type 2950 HP1 datasheet E02.11.01

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 233.30.160 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

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Code number dim 160 mm scale Bar						
	2940	2940	2945	2945	2949	2949
Mounting	Lower	Lower	Back flange	Back flange	Front flange	Front flange
Connection	G3/8"	G1/2"	G3/8"	G1/2"	G3/8"	G1/2"
0-0,6 bar	29406001	29405601	29456001	29455601	29496001	29495601
0-1 bar	29406002	29405602	29456002	29455602	29496002	29495602
0-1,6 bar	29406003	29405603	29456003	29455603	29496003	29495603
0-2,5 bar	29406004	29405604	29456004	29455604	29496004	29495604
0-4 bar	29406006	29405606	29456006	29455606	29496006	29495606
0-6 bar	29406007	29405607	29456007	29455607	29496007	29495607
0-10 bar	29406008	29405608	29456008	29455608	29496008	29495608
0-16 bar	29406011	29405611	29456011	29455611	29496011	29495611
0-25 bar	29406013	29405613	29456013	29455613	29496013	29495613
0-40 bar	29406015	29405615	29456015	29455615	29496015	29495615
0-60 bar	29406017	29405617	29456017	29455617	29496017	29495617
0-100 bar	29406019	29405619	29456019	29455619	29496019	29495619
0-160 bar	29406020	29405620	29456020	29455620	29496020	29495620
0-250 bar	29406022	29405622	29456022	29455622	29496022	29495622
0-400 bar	29406024	29405624	29456024	29455624	29496024	29495624
0-600 bar	29406025	29405625	29456025	29455625	29496025	29495625
0-1000 bar	29406026	29405626	29456026	29455626	29496026	29495626
-1/0 bar	29406040	29405640	29456040	29455640	29496040	29495640
-1/+1,5 bar	29406066	29405666	29456066	29455666	29496066	29495666
-1/+3 bar	29406067	29405667	29456067	29455667	29496067	29495667
-1/+5 bar	29406068	29405668	29456068	29455668	29496068	29495668
-1/+9 bar	29406069	29405669	29456069	29455669	29496069	29495669
-1/+15 bar	29406071	29405671	29456071	29455671	29496071	29495671
-1/+24 bar	29406072	29405672	29456072	29455672	29496072	29495672

Pressure gauge




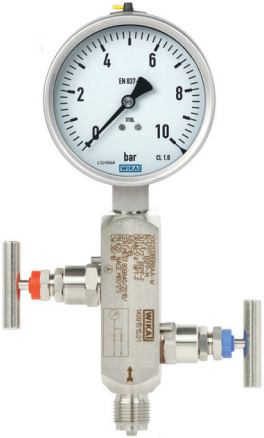
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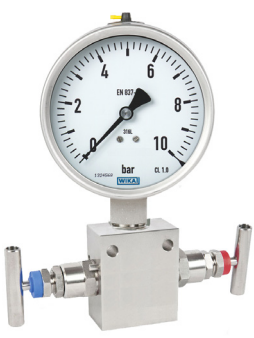



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Pressure gauge with Instrument Needle valve and Block-and-bleed valve

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

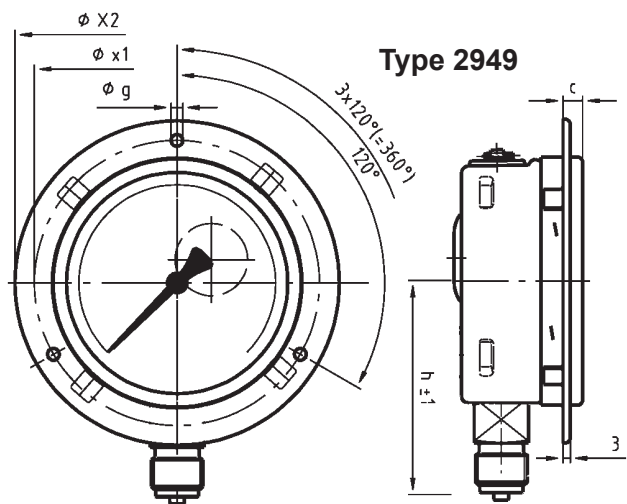
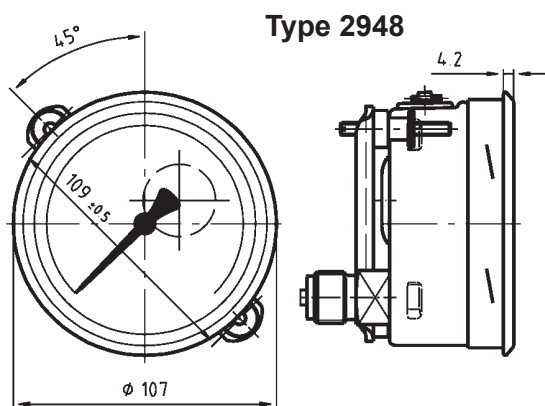
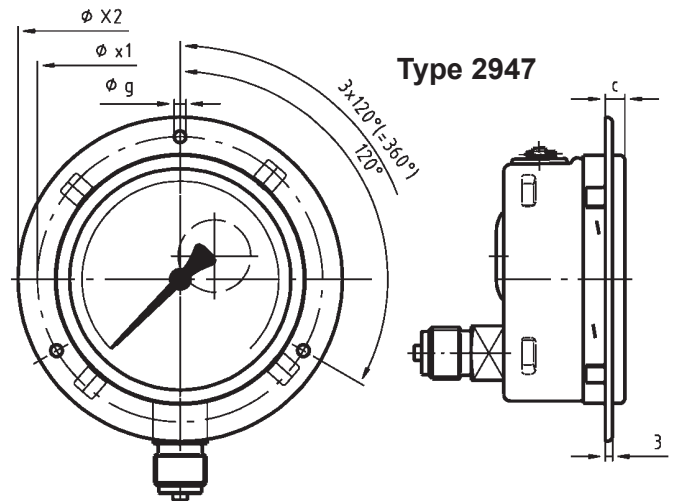
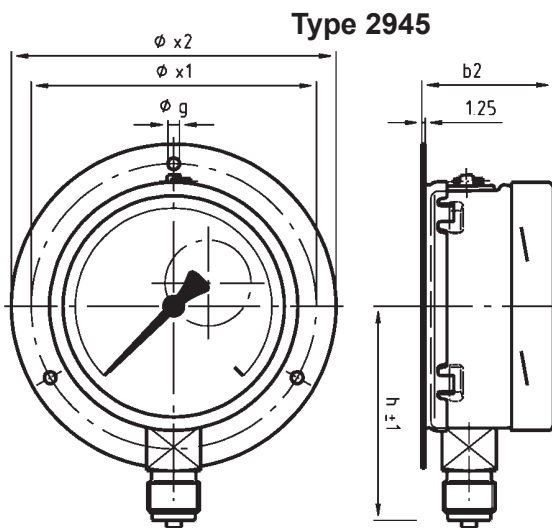
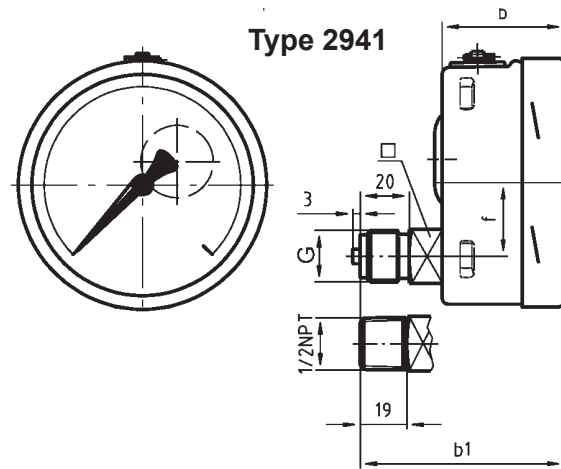
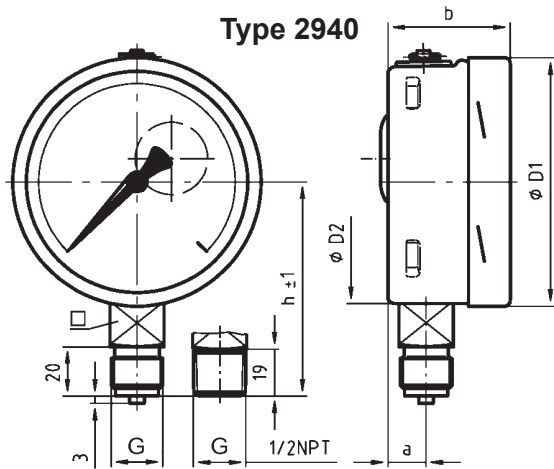
IV10	IV11	IV201	IV202
Needle valve	Needle valve	Block-and-bleed valve	Block-and-bleed valve
Standard	Multiport	Square form angled	Square form in-line
Female x female/male	Female x female/male	Female x female/male	Female x female/male
			

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
			

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Dim Ø	a	b	b ₁	b ₂	D ₁	D ₂	x1	x2	g	h±1	f	c	kg	G
160	15,5	49,5*	83*	53,5	161	159	178	196	5,8	188	50	10	1,1	G3/8-G1/2

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