

Stainless steel differential pressure gauge

Model F5503

Max. static pressure 100 bar

Nominal size 100 mm or 160 mm

Accuracy: Class 1,6 (EN), optional 1 %



Features

- Stainless steel case and wetted parts
- Static pressure 100 bar, one side load permitted
- Protection IP65, optional IP66
- Chamber purge and bleed connection
- High corrosive resistance
- Dry or liquid filled
- Dual diaphragm, safety design as solid front

Ranges

0 ... 40 mbar up to 0 ... 40 bar

Applications

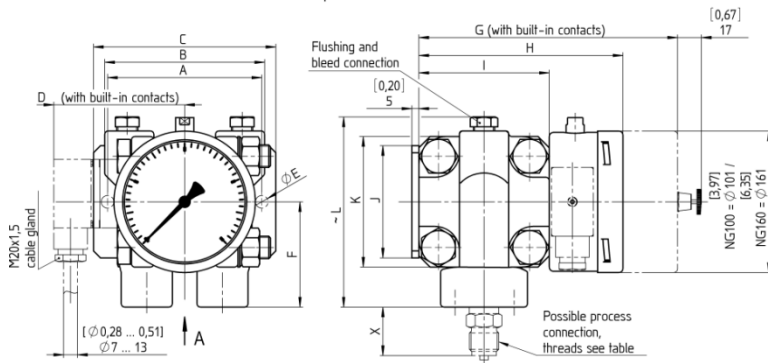
Chemical and petrochemical industry
Machine and apparatus construction
Food and beverage industry
Pulp and paper industry



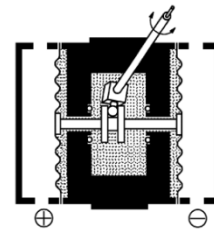
Technical specification	F5503	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Externally, at the top of the case	
Measuring principle	Dual diaphragm (principle see back side), safety design similar to solid front	
Range in mbar	40 60 100 160 250 400	
in bar	0,6 1 1,6 2,5 4 6 10 16 25 40	
Max. static pressure	100 bar	
Overload capability	Static pressure is also maximum pressure allowed on one side	
Pressure type	Differential	
Process connection	Flange for direct mounted manifolds similar to DIN EN 61518 with G ½ female G ¼ B male, G ¼ female, G ½ B male, ¼ NPT male, ¼ NPT female, ½ NPT male, ½ NPT female, others on request	
Purge and bleed connection	On top of both pressure chambers, G ½ female with plug	
Connection location	Lower	
Material	Pressure connection: Stainless steel 316L (1.4404), optional Hastelloy C-276 Pressure chamber: Stainless steel 316L (1.4404), optional Hastelloy C-276, Viton O-ring, Teflon on request Measuring diaphragm: ≤ 400 mbar stainless steel 316Ti (1.4571), optional Hastelloy C276 > 400 mbar Duratherm 2.4781 (NiCrCo alloy), 40 bar Inconel 718 (2.4668), optional Hastelloy C 276 (ranges ≥ 4 bar with Hastelloy foil, not suitable for vacuum, only with accuracy class 1.6 (EN)) or Monel Case/bayonet ring: Stainless steel 304 (1.4301), optional 316L (1.4404) Window: Laminated safety glass Dial: Aluminum, black markings on white background Pointer: Aluminum, black, optional red set hand or maximum pointer	
Accuracy	Class 1,6 (1,6 % F.S.), optional 1 % or 0,5 % according to ASME B40.1 unidirectional	
Permissible	Ambient temperature: -20 ... 80 °C Medium temperature: Max. 85 °C Storage temperature: -40 ... 60 °C Effect: Max. 0,3 % / 10 K	
Conformity according to RL 2014/34/EU appendix X for mechanical equipment in potential hazardous areas	Optional, Marking $\text{CE} \text{ (Ex)} \text{ II 2 GD c 95 }^{\circ}\text{C IP65}$ (Ta -20 °C ... +60 °C) File no. 35106158 at notified body 0044, TUV NORD CERT	
Protection according EN 60 529/IEC 529	IP65, optional IP66 / NEMA 4X (only for option LJ or liquid filled cases)	
Filling liquids	Glycerin, silicone, others on request	
Mounting	Direct, optional wall or 2" pipe mounting (not for ranges ≤ 400 mbar), others on request	
Weight dry/filled in kg	≤ 400 mbar: 9/9,5 ≥ 600 mbar: 4/4,5	9,4/10 4,5/5
Accessories, options	3 or 5 way remote or direct mounted manifolds, gauges with contacts (see data sheet G1.K55/E), diaphragm seals, NACE/ISO 15156	

General dimensions in mm

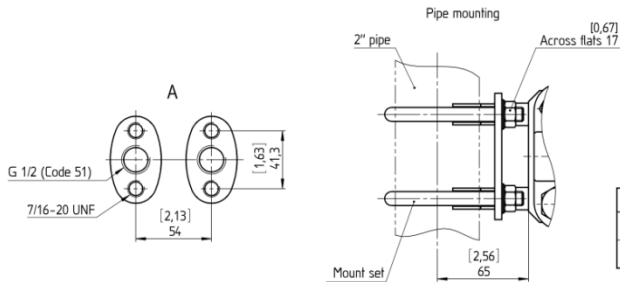
Max. static pressure PN100



Measuring principle



Threads	Code	Material S	Material HH
1/4-18 NPT male; DIN EN 837	02	33 [1,30]	33 [1,30]
1/2-14 NPT male; DIN EN 837	04	36 [1,42]	36 [1,42]
G 1/4 B male; DIN EN 837	13	25 [0,98]	25 [0,98]
G 1/2 B male; DIN EN 837	15	32 [1,26]	32 [1,26]
M20x1,5 male; DIN 3852 part 1	16	32 [1,26]	32 [1,26]
1/4-18 NPT female	25	25 [0,98]	25 [0,98]
G 1/4 female; DIN EN 837	27	15 [0,59]	15 [0,59]
1/2-14 NPT female	50	0	25 [0,98]



	A	B	C	D	E	F	G	H	I	J	K	~L	M	(N)
40 + 400 mbar	[5,20] 132	[4,25] 108	[5,98] 152	[4,72] 120	[0,35] 4 x ∅ 9	[3,94] 100	[9,43] 239,5	[7,62] 193,5	[5,55] 141	[3,15] 80	[5,55] 141	[7,11] 181	[2,36] 60	[2,78] 70,5
0,6 + 40 bar	[4,33] 110	[4,49] 114	[5,12] 130	[3,54] 90	[0,35] 2 x ∅ 9	[2,95] 75	[7,26] 184,5	[5,73] 145,5	[3,66] 93	[3,15] 80	[3,66] 93	[5,33] 136	-	[1,83] 46,5

Order information

Size	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling and contacts	Options	
(100) 100 mm	(S) Pressure chamber 316L (1.4404) Diaphragm ≤ 400 mbar 316Ti (1.4571), > 400 mbar Duratherm, 40 bar Inconel (SH) Pressure chamber 316L (1.4404) Diaphragm Hastelloy C276 (HH) Pressure chamber and diaphragm Hastelloy C276 (SM) Pressure chamber 316L (1.4404) Diaphragm Monel (only ranges ≥ 0,6 bar)	(=) Dry case	(27) G ¼ female	(L) Lower	0/ 40 0/ 60 0/100 0/160 0/250 0/400	(MBAR)	(=) Standard no filling	(NH) Tagging wired	
(160) 160 mm		(L) Liquid filled	(02) ¼ NPT male (04) ½ NPT male (13) G ¼ B male (15) G ½ B male (25) ¼ NPT female (50) ½ NPT female (51) G ½ female and flange for direct mounted valves		0/ 0,6 0/ 1 0/ 1,6 0/ 2,5 0/ 4 0/ 10 0/ 16 0/ 25 0/ 40	(BAR)	(GV) Silicone (suitable for inductive contacts) (GT) Napvis (suitable for magnetic spring contacts) (GR) Glycerin () Contact type and function (see data sheet G1.K55/E)	(6B) Cleaned for Oxygen service (body filled with halocarbon inadmissible for static pressure ≤ 40 bar) (YW) Case material 316L (1.4404) (PT) PTFE gasket (AN) Accuracy class 1 ^{1) 2)} (AJ) Accuracy 0,5% ^{1) 2)} (CS) Dual scale (DA) Dial marking (FW) Wall mounting bracket (TM) 2" pipe mounting bracket (LJ) Field fillable (only for execution =) (ATEX) ATEX listed	
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Order example

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/ contacts	Option
100	F5503	S	=	51	L	0/40	MBAR	=	NH

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