

Stainless steel differential pressure gauge

Model F5503-HP

Max. static pressure 400 bar

Nominal size 100 mm or 160 mm

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



Features

- Stainless steel case and wetted parts
- Static pressure 160 bar, 250 bar and 400 bar, one side load permitted
- Protection IP65
- 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

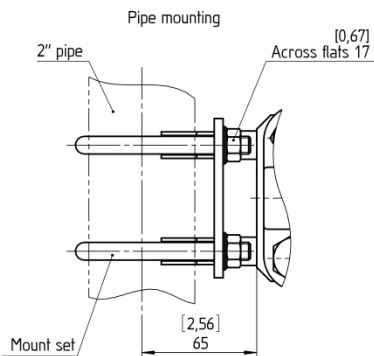
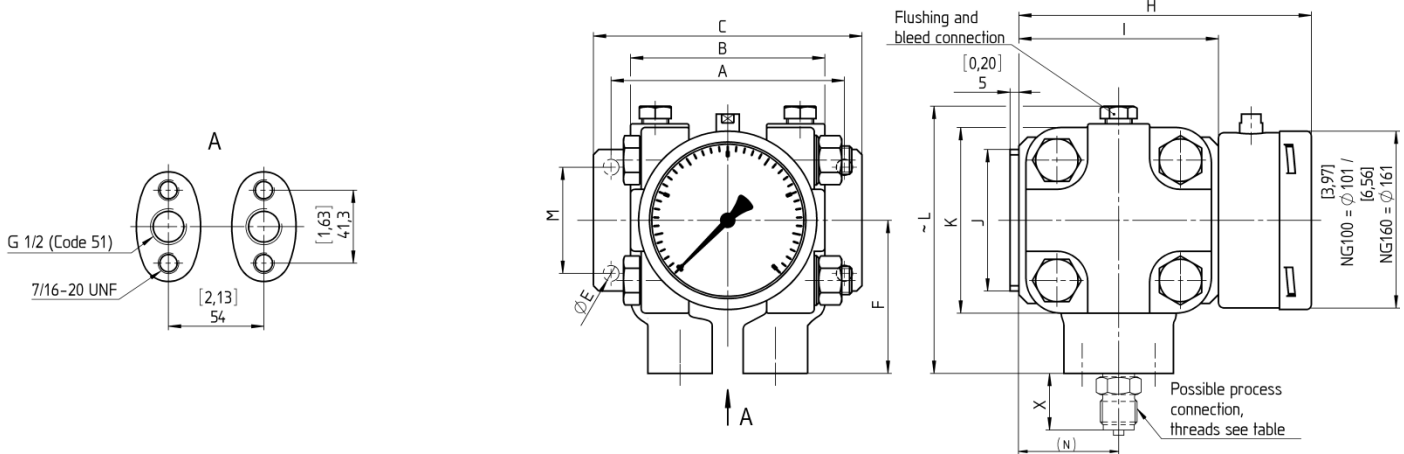


Technical specification	F5503-HP	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Externally, at the top of the case	
Measuring principle	Dual diaphragm (principle see back side), safety design similar to solid front	
Range in mbar	40 60 100 160 250 400	
in bar	0,6 1 1,6 2,5 4 6 10 16 25 40	
Max. static pressure	160 bar, 250 bar or 400 bar ¹⁾ ¹⁾ Ranges ≤ 400 mbar only on request	
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 ⅜ 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), optional Hastelloy C276 (ranges ≥ 4 bar with Hastelloy foil, not suitable for vacuum)	
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 B40.100 unidirectional	
Permissible		
Ambient temperature	-20 ... 60 °C	
Medium temperature	Max. 85 °C	
Storage temperature	-40 ... 60 °C	
Effect	Max. 0,3 % / 10 K	
Conformity according to RL 94/9/EC appendix X for mechanical equipment in potential hazardous areas	Optional, Marking CE Ex II 2 GD c 95 °C IP65 File no. 35106158 at notified body 0044, TÜV NORD CERT	
Protection according EN 60 529/IEC 529	IP65	
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	17/17,5	17,3/18,5
≥ 600 mbar	6/6,5	6,3/7,5
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	

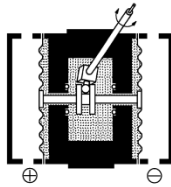
All specifications are subject to change without notice.

General dimensions in mm

Max. static pressure PN400
(for ranges up to 400 mbar PN250)



Measuring principle



Threads	Code	X	
		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)
60 + 400 mbar max. PN250	[6,69] 170	[5,83] 148	[7,87] 200	-	[0,43] 4 x ∅11	[4,72] 120	-	[8,96] 227,5	[6,89] 175	[3,94] 100	[6,69] 170	[8,62] 219	[2,36] 60	[3,44] 87,5
0,6 + 25 bar max. PN400	[5,20] 132	[4,33] 110	[5,98] 152	-	[0,35] 2 x ∅9	[3,41] 86,5	-	[6,52] 165,5	[4,45] 113	[3,15] 80	[4,13] 105	[5,94] 151	-	[2,22] 56,5

Rev. 0

Order information

Size	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case/contacts	Options
(100) 100 mm	(S) Pressure chamber 316L (1.4404)	(=) 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 (YW) Case material 316L (1.4404)
(160) 160 mm	Diaphragm ≤ 400 mbar 316Ti (1.4571), > 400 mbar Duratherm ¹⁾	(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/ 6 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)	(PT) PTFE gasket (CS) Dual scale (DA) Dial marking (FW) Wall mounting bracket (TM) 2" pipe mounting bracket (not for ranges ≤ 400 mbar) (LJ) Field fillable, IP65 (only for execution =) (PN160) Max. static pressure 160 bar (PN250) Max. static pressure 250 bar (PN400) Max. static pressure 400 bar (ranges ≤ 400 mbar only on request) (ATEX) ATEX listed
	(SH) Pressure chamber 316L (1.4404) Diaphragm Hastelloy C-276 ¹⁾							
	(HH) Pressure chamber and diaphragm Hastelloy C-276 ¹⁾							
	¹⁾ ranges ≤ 400 mbar with PN400 only on request							
						psi and others on request compound ranges on request		

Order example

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case/contacts	Option
100	F5503-HP	S	=	51	L	0/1,6	BAR	=	PN400

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