

# 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

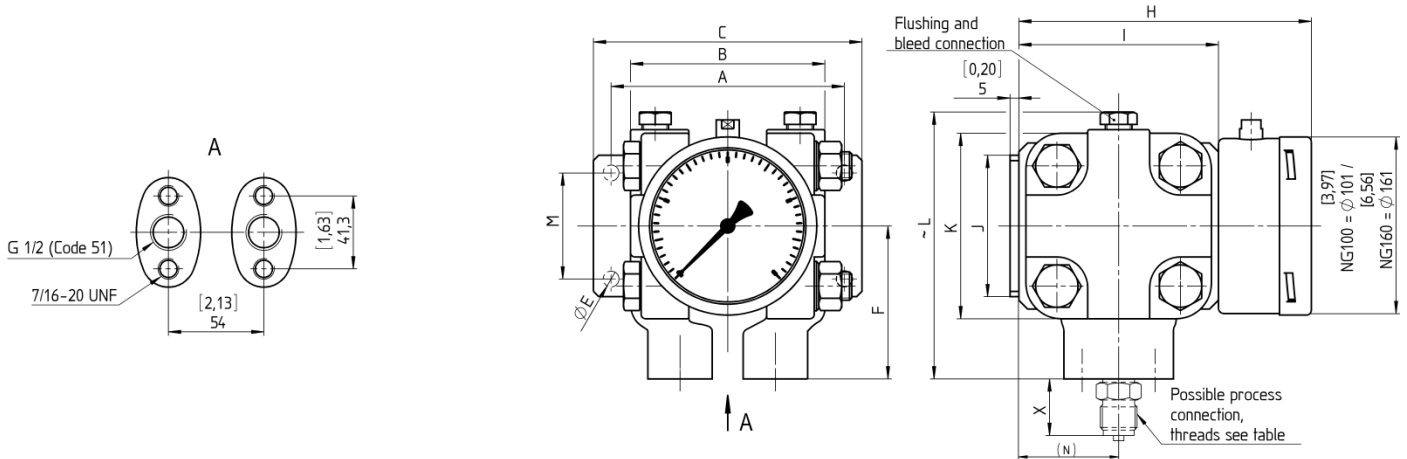
Pulp and paper industry



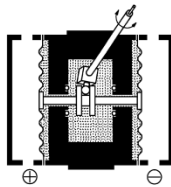
Technical specification	F5503-HP	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Externally, at the top of the case	
Measuring principle	Dual diaphragm (principle see back side), safety design similar to solid front	
Range in mbar	40 60 100 160 250 400	
in bar	0,6 1 1,6 2,5 4 6 10 16 25 40	
Max. static pressure	160 bar, 250 bar or 400 bar <sup>1)</sup> <sup>1)</sup> 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 Pressure chamber Measuring diaphragm  Case/bayonet ring Window Dial Pointer	
Accuracy	Class 1,6 (1,6 % F.S.), optional 1 % or 0,5 % according to ASME B40.100 unidirectional	
Permissible	Ambient temperature Medium temperature Storage temperature Effect	
Conformity according to RL 2014/34/EU appendix X for mechanical equipment in potential hazardous areas	CE 0044 Ex II 2G Ex h IIC T4 Gb II 2D Ex h IIC T95°C Db Ta = -20°C to +60°C Optional, Marking 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 ≥ 600 mbar	17,3/18,5 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	

## General dimensions in mm

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



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)
60 ÷ 400 mbar max. PN250	[6,69] 170	[5,83] 148	[7,87] 200	-	[0,43] 4 x Ø 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 Ø 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) Diaphragm ≤ 400 mbar <sup>1)</sup> 316Ti (1.4571), > 400 mbar Duratherm 40 bar (PN160) Inconel	(=) Dry case	(27) G 1/4 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	(SH)Pressure chamber 316L (1.4404) Diaphragm Hastelloy C-276 <sup>1)</sup>	(L) Liquid filled	(02) 1/4 NPT male		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)	(YW) Case material 316L (1.4404)
	(HH)Pressure chamber and diaphragm Hastelloy C-276 <sup>1)</sup>		(04) 1/2 NPT male				(GT) Napvis (suitable for magnetic spring contacts)	(PT) PTFE gasket
			(13) G 1/4 B male				(GR) Glycerin	(CS) Dual scale
			(15) G 1/2 B male				( ) Contact type and function (see data sheet G1.K55/E)	(DA) Dial marking
			(25) 1/4 NPT female					(FW) Wall mounting bracket
			(50) 1/2 NPT female					(TM) 2" pipe mounting bracket (not for ranges ≤ 400 mbar)
			(51) G 1/2 female and flange for direct mounted valves					(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

<sup>1)</sup> ranges ≤ 400 mbar with PN400 only 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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