

# 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

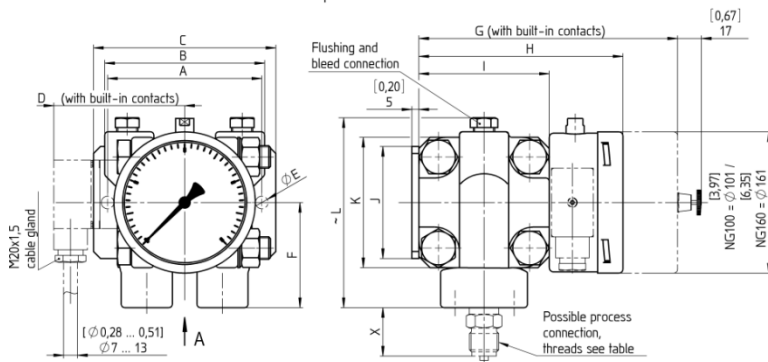
Pulp and paper industry



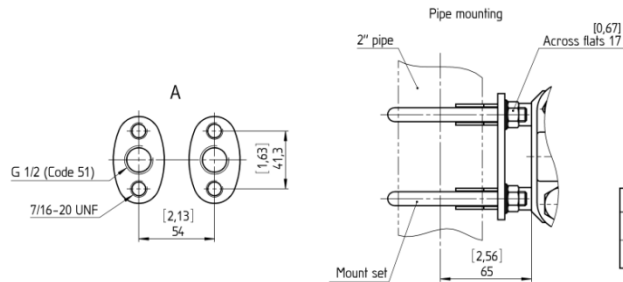
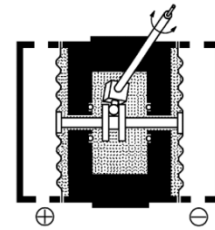
Technical specification	F5503	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Externally, at the top of the case	
Measuring principle	Dual diaphragm (principle see back side), safety design similar to solid front	
Range in mbar	40 60 100 160 250 400	
in bar	0,6 1 1,6 2,5 4 6 10 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	Stainless steel 316L (1.4404), optional Hastelloy C-276	
Pressure connection	Stainless steel 316L (1.4404), optional Hastelloy C-276, Viton O-ring, Teflon on request	
Pressure chamber	≤ 400 mbar stainless steel 316Ti (1.4571), optional Hastelloy C276	
Measuring diaphragm	> 400 mbar Duratherm 2.4781 (NiCrCo alloy), 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	-20 ... 60 °C	
Ambient temperature	Max. 85 °C	
Medium temperature	-40 ... 60 °C	
Storage temperature	Max. 0,3 % / 10 K	
Effect	Optional, Marking  II 2 GD c 95 °C IP65 File no. 35106158 at notified body 0044, TUV NORD CERT	
Conformity according to RL 94/9/EC appendix X for mechanical equipment in potential hazardous areas		
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	9,4/10
≥ 600 mbar	4,4,5	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	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)
40 + 400 mbar	[5,20] 132	[4,25] 108	[5,98] 152	[4,72] 120	[0,35] 4 x Ø 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 Ø 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	<b>(S)</b> Pressure chamber 316L (1.4404) <b>Diaphragm</b> ≤ 400 mbar 316Ti (1.4571), > 400 mbar Duratherm	<b>(=)</b> Dry case <b>(L)</b> Liquid filled	<b>(27)</b> G ¼ female <b>(02)</b> ¼ NPT male <b>(04)</b> ½ NPT male <b>(13)</b> G ¼ B male <b>(15)</b> G ½ B male <b>(25)</b> ¼ NPT female <b>(50)</b> ½ NPT female <b>(51)</b> G ½ female and flange for direct mounted valves	<b>(L)</b> Lower	<b>0/ 40</b> <b>0/ 60</b> <b>0/100</b> <b>0/160</b> <b>0/250</b> <b>0/400</b>	<b>(MBAR)</b>	<b>(=)</b> Standard no filling <b>(GV)</b> Silicone (suitable for inductive contacts) <b>(GT)</b> Napvis (suitable for magnetic spring contacts) <b>(GR)</b> Glycerin <b>( )</b> Contact type and function (see data sheet G1.K55/E)	<b>(NH)</b> Tagging wired <b>(6B)</b> Cleaned for Oxygen service (body filled with halocarbon inadmissible for static pressure ≤ 60 bar) <b>(YW)</b> Case material 316L (1.4404) <b>(PT)</b> PTFE gasket <b>(AN)</b> Accuracy class 1 <sup>1) 2)</sup> <b>(AJ)</b> Accuracy 0,5% <sup>1) 2)</sup> <b>(CS)</b> Dual scale <b>(DA)</b> Dial marking <b>(FW)</b> Wall mounting bracket <b>(TM)</b> 2" pipe mounting bracket <b>(LJ)</b> Field fillable (only for execution =) <b>(ATEX)</b> ATEX listed <b>(C3)</b> Material certificate acc. to EN 10204 3.1 <b>(C4)</b> Individual 4-point calibration certificate
(160) 160 mm								

## 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

## Ashcroft Instruments GmbH

Germany  
 Max-Planck-Str. 1, D-52499 Baesweiler  
 P.O. Box 11 20, D-52490 Baesweiler  
 Tel.: +49 (0) 2401 808-0, Fax: +49 (0) 2401 808-125

France  
 48, Chemin des Landes  
 F-69700 Montagny  
 Tel.: +33 (0) 9 65 32 71 31, Fax: +33 (0) 4 72 39 10 57

Website: www.ashcroft.eu

e-Mail: sales@ashcroft.com

## United Kingdom

Unit 17 & 18 William James House  
 Cowley Road, Cambridge CB4 0WJ  
 Tel.: +44 (0) 12 23 39 55 00, Fax: +44 (0) 12 23 39 55 01