

# Stainless steel differential pressure gauge

## Model F5503

**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 100 bar, 160 bar, 250 bar and 400 bar optional, one side load permitted
- Protection IP54 or IP65
- Chamber purge and bleed connection available
- High corrosive resistance
- Dry or liquid filled
- Dual diaphragm, solid front not required

### 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

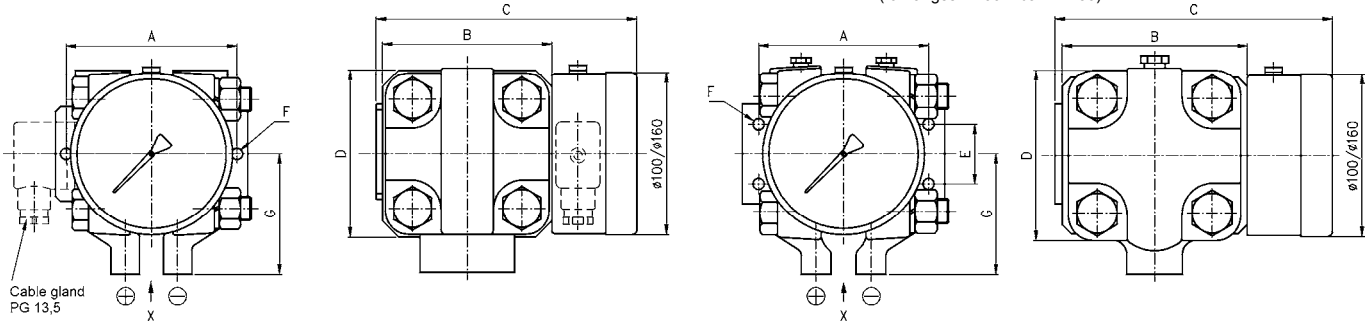


Technical specification	F5503			
Dial size [mm]	100		160	
Construction	Cylindrical case			
Zero adjustment	Externally, at the top of the case			
Measuring principle	Dual diaphragm (see back side), safety design, solid front not required			
Range [mbar]	40 60 100 160 250 400 mbar ranges not for static pressure 400 bar			
[bar]	0,6 1 1,6 2,5 4 6 10 16 25 40			
Max. static pressure [bar]	100 bar, optional 160 bar <sup>1)</sup> , 250 bar <sup>1)</sup> or 400 bar <sup>1)</sup> <sup>1)</sup> Not for system material code HH			
Overload capability	Static pressure is also maximum pressure allowed on one side			
Pressure type	Differential			
Process connection	Flange for direct mounted valves G 1/4 B male, G 1/4 female, G 1/2 B male, G 1/2 female 1/4 NPT male, 1/4 NPT female, 1/2 NPT male, 1/2 NPT female, others on request			
Connection location	Lower			
Material	Stainless steel 316L (1.4404), optional Hastelloy C			
Pressure connection	Stainless steel 316L (1.4404), optional Hastelloy C (max. PN100), Viton O-ring, Teflon on request			
Pressure chamber	> 1 bar stainless steel 316Ti (1.4571), optional Hastelloy C or Monel			
Measuring diaphragm	≤ 1 bar Duratherm (NiCrCo alloy), optional Hastelloy C 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 % unidirectional			
Permissible	-25 ... 80 °C			
Ambient temperature	Max. 100 °C			
Medium temperature	-40 ... 60 °C			
Storage temperature	Max. 0,3 % / 10 K			
Effect	IP54 (dry), IP65 (liquid filled or field fillable)			
Protection according EN 60 529/IEC 529	Optional, Marking $\text{CE} \text{ (Ex)} \text{ II 2 GD } \varnothing 95 \text{ } ^\circ\text{C IP65}$			
Conformity according to RL 94/9/EC appendix X for mechanical equipment in potential hazardous areas	File no. 8000324431 at notified body 0032, TÜV NORD CERT (only with safety glass and protection IP65 or liquid filling)			
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 [kg]	100 bar	160 bar, 250 bar or 400 bar	100 bar	160 bar, 250 bar or 400 bar
Max. static pressure ≤ 400 mbar	9/9,5	17/17,5	9,4/10	17,3/18,5
≥ 600 mbar	4/4,5	6/6,5	4,5/5	6,3/7,5
Accessories, options	3 or 5 way remote or direct mounted manifolds, valves, gauges with contacts (see data sheet G1.K55/E), diaphragm seals, NACE/ISO 15156			

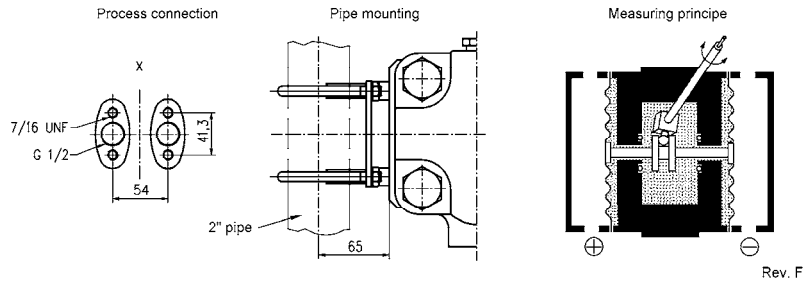
## General dimensions [mm]

Max. static pressure PN100

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



	A	B	C	D	E	F	G
40–400 mbar max. PN100	132	141	197	141	60	4x Ø9	101
max. PN250	170	175	231	170	60	4x Ø11	120
0,6–40 bar max. PN100	110	93	149	93	–	2x Ø9	76,0
max. PN400	132	113	169	105	–	2x Ø9	86,5



Rev. F

## Order information

Size	System material	Execution	Process connection	Connection orientation	Range	Engineering units	Filling/case/contacts	Options						
(100) 100 mm	<b>(S) Pressure chamber</b> 316L (1.4404) <b>Diaphragm</b> > 1 bar 316Ti (1.4571), ≤ 1 bar Duratherm	<b>(=)</b> IP54 standard case	<b>(27)</b> G ¼ female <b>(02)</b> ¼ NPT male	<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>(NH)</b> Tagging wired						
(160) 160 mm									<b>(L)</b> Liquid filled IP65	<b>(04)</b> ½ NPT male <b>(13)</b> G ¼ B male <b>(15)</b> G ½ B male	<b>0/ 0,6</b> <b>0/ 1</b> <b>0/ 1,6</b> <b>0/ 2,5</b> <b>0/ 4</b> <b>0/ 6</b> <b>0/ 10</b> <b>0/ 16</b> <b>0/ 25</b> <b>0/ 40</b>	<b>(BAR)</b>	<b>(GV)</b> Silicone <b>(GR)</b> Glycerin	<b>(6B)</b> Oxygen service (body filled with halocarbon) <b>(CS)</b> Dual scale
									<b>(SH) Pressure chamber</b> 316L (1.4404) <b>Diaphragm</b> Hastelloy C	<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>(YW)</b> Case ma- terial 316L (1.4404)	<b>(DA)</b> Dial marking <b>(FW)</b> Wall mounting bracket <b>(PT)</b> PTFE gasket	
									<b>(HH) Pressure chamber and diaphragm</b> Hastelloy C (max. PN100)			<b>( )</b> Contact type and function (see data sheet G1.K55/E)	<b>(TB)</b> Purge and vent connection G 1/8 <b>(TM)</b> 2" pipe mounting bracket (not for ranges ≤ 400 mbar with static pressure ≥ PN160)	
	<b>(SM) Pressure chamber</b> 316L (1.4404) <b>Diaphragm</b> Monel only ranges ≥ 0,6 bar						<b>(LJ)</b> Field fillable, IP65 (only for execution =)							
							<b>(PN100)</b> Max. static pressure 100 bar <b>(PN160)</b> Max. static pressure 160 bar <sup>1)</sup> <b>(PN250)</b> Max. static pressure 250 bar <sup>1)</sup> <b>(PN400)</b> Max. static pressure 400 bar <sup>1)</sup> (not for ranges ≤ 400 mbar)							
						psi and others on request  compound ranges on re- quest	<b>(ATEX)</b> ATEX listed  <sup>1)</sup> not for system material code HH							

## How to order

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

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