

Stainless steel differential pressure gauge

Model F5502

Max. static pressure 25 bar

Nominal size 100 mm or 160 mm

Accuracy: Class 2,5 (EN), optional class 1,6

Features

- Stainless steel case and wetted parts
- Static pressure 25 bar, one side load permitted
- Protection IP65
- High corrosive resistance
- Dry or liquid filled
- Optional 1 or 2 microswitch SPDT

Ranges

0 ... 0,6 bar up to 0 ... 16 bar

Applications

Chemical and petrochemical industry

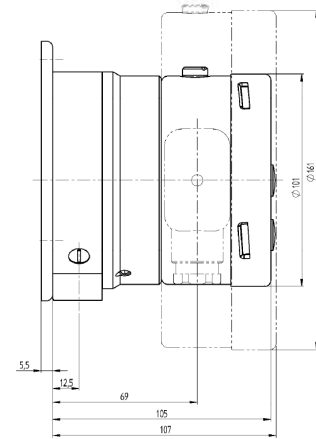
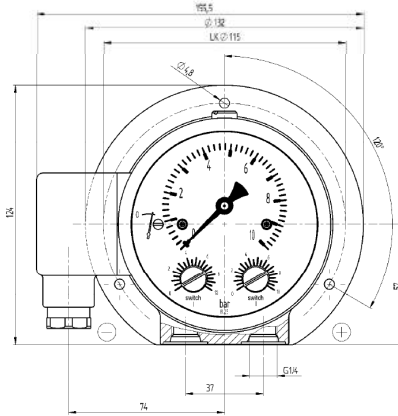
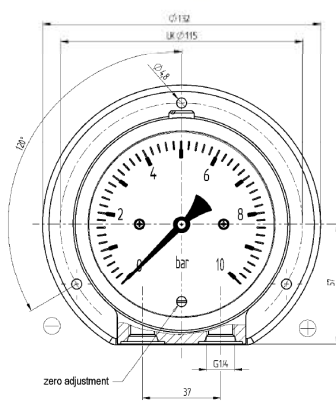
Machine and apparatus construction

Food and beverage industry

Pulp and paper industry

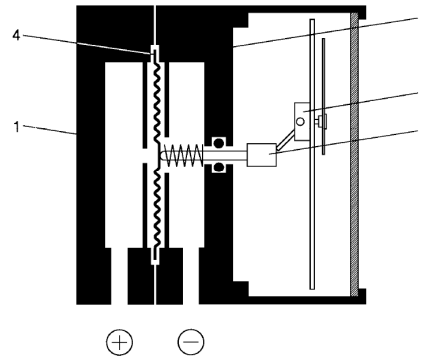


Technical specification	F5502	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Internally, accessible if window is removed	
Measuring principle	Diaphragm (see rear side), safety design, solid front not required	
Range in bar	0,6 1 1,6 2,5 4 6 10 16	
max. static pressure in bar	25	
Overload capability	Static pressure is also maximum pressure allowed on one side	
Pressure type	Differential	
Process connection	G ¼ B male, G ¼ female, G ½ B male, G ½ female ¼ NPT male, ¼ NPT female, ½ NPT male, ½ NPT female, others on request	
Connection location	Lower	
Material	Pressure connection: Stainless steel 316L (1.4404) Pressure chamber: Stainless steel 316L (1.4404), FPM O-ring Measuring membrane: Nickel Beryllium (NiBe) Case/bayonet ring: Stainless steel 304 (1.4301), optional 316 (1.4401) Window: Laminated safety glass Dial: Aluminum, black markings on white background Pointer: Aluminum, black, optional red set hand or maximum pointer	
Accuracy	Class 2,5 (2,5 % F.S.), optional class 1,6 (1,6 %)	
Electrical specification	Microswitch rating: 5 A 250 VAC (P max. 250 VA); 3 A 28 VDC Connection: Cable prewired, angle connector acc. DIN EN 175301-803 Switch Hysteresis: Approx. 2,5 %	
Permissible	Ambient temperature: -20 ... 80 °C Medium temperature: Max. 100 °C Storage temperature: -40 ... 60 °C Effect: Max. 0,3 % / 10 K	
Protection according EN 60 529/IEC 529	IP65	
CE-Mark	For instruments with electrical contacts low voltage regulations EN 61010-1, EN 60947-1	
Filling liquids	Glycerin, silicone, others on request	
Mounting	Wall mounting, optional 2" pipe mounting, others on request	
Weight dry/filled in kg	3,6/3,8	3,8/4,2
Accessories, options	3 or 5 way remote or direct mounted manifolds, valves, gauges with 1 or 2 microswitch SPDT	



Rev. C

Measuring principle



- 1 Pressure chamber
- 2 Movement
- 3 Push rod
- 4 Diaphragm

Order information

Size	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/contacts	Options
(100) 100 mm	(S) Pressure chamber 316L (1.4404) diaphragm Nickel-Beryllium (NiBe)	(=) IP65 standard case	(02) ¼ NPT male	(L) Lower	0/ 0,6 0/ 1 0/ 1,6 0/ 2,5 0/ 4 0/ 6 0/ 10 0/ 16	BAR psi and others on request compound ranges on re- quest	(=) Standard no filling	(NH) Tagging wired
(160) 160 mm		(L) Liquid filled	(04) ½ NPT male				(GR) Glycerin (not for mi- croswitch)	(6B) Oxygen service
			(13) G ¼ B male				(GV) Silicone	(CS) Dual scale
			(15) G ½ B male				(GX) Halocarbon (not for mi- croswitch)	(DA) Dial marking
			(25) ¼ NPT female				(GT) Napvis	(TM) 2" pipe mount- ing bracket
		(27) G ¼ female			(Q3) 1 micro- switch SPDT	(LJ) Field fillable		
		(50) ½ NPT female			(Q33) 2 micro- switch SPDT	(YW) Case material 316 (1.4401)		
						(AN) 1,6 % accuracy		

Order example

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/contacts	Options
100	F5502	S	=	27	L	0/6	BAR	=	NH

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
- 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

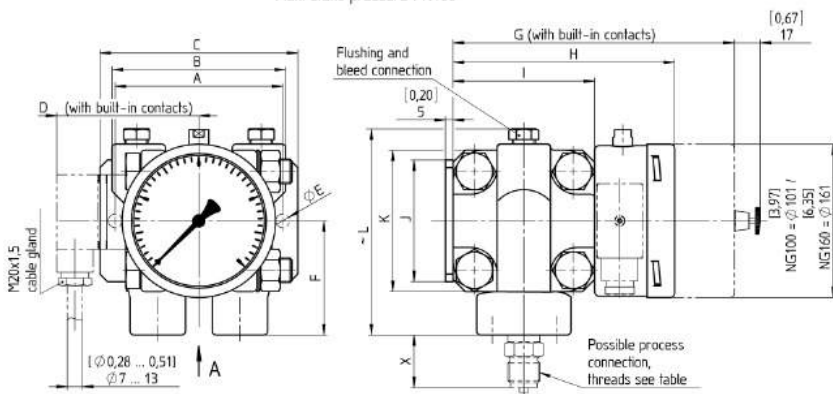
Chemical and petrochemical industry
Machine and apparatus construction
Food and beverage industry
Pulp and paper industry



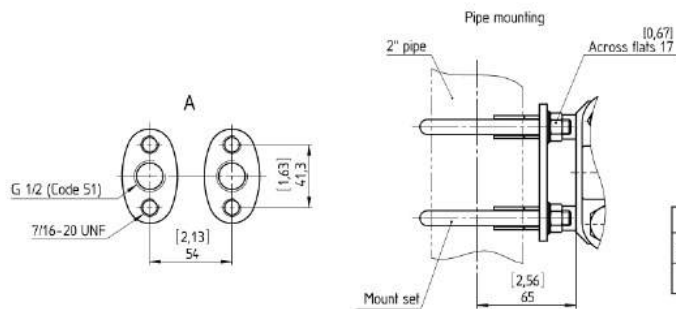
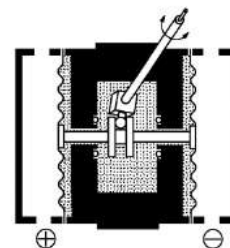
Technical specification	F5503	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Externally, at the top of the case	
Measuring principle	Dual diaphragm (principle see back side), safety design similar to solid front	
Range in mbar	40 60 100 160 250 400	
in bar	0,6 1 1,6 2,5 4 6 10 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, G½ female with plug	
Connection location	Lower	
Material		
Pressure connection	Stainless steel 316L (1.4404), optional Hastelloy C4	
Pressure chamber	Stainless steel 316L (1.4404), optional Hastelloy C4, 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 C (ranges ≥ 4 bar with Hastelloy foil, not suitable for vacuum) 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 ... 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 (E) 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	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

Rev. I

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	(=) 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	(SH) Pressure chamber 316L (1.4404) Diaphragm Hastelloy C276	(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)	(6B) Cleaned for Oxygen service (body filled with halocarbon) (YW) Case material 316L (1.4404) (PT) PTFE gasket (AN) Accuracy class 1 (AJ) Accuracy 0,5% (CS) Dual scale (DA) Dial marking (FW) Wall mounting bracket (TM) 2" pipe mounting bracket (LJ) Field fillable (only for execution =) (ATEX) ATEX listed (C3) Material certificate acc. to EN 10204 3.1 (C4) Individual 4-point calibration certificate
	(HH) Pressure chamber and diaphragm Hastelloy C (SM) Pressure chamber 316L (1.4404) Diaphragm Monel (only ranges ≥ 0,6 bar)					psi and others on request compound ranges on request		

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

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

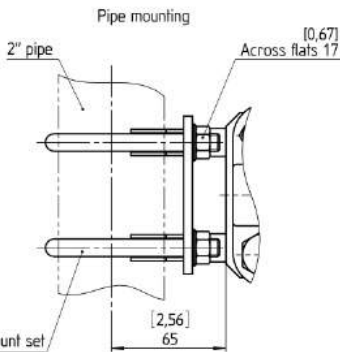
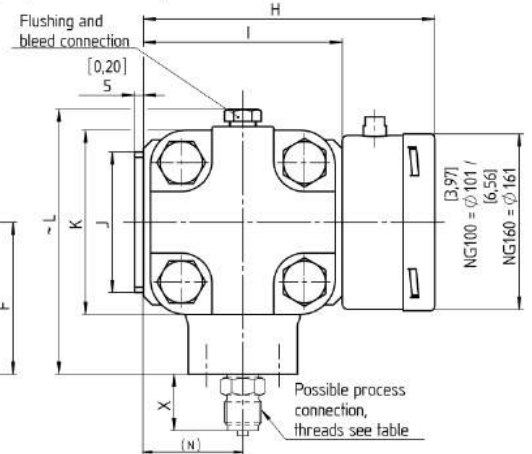
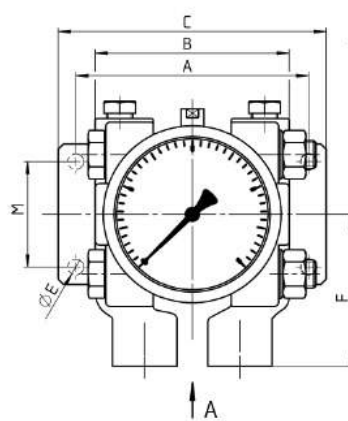
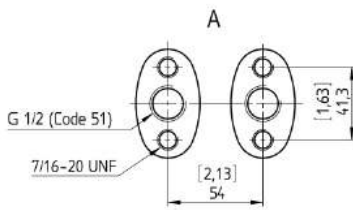
Chemical and petrochemical industry
Machine and apparatus construction
Food and beverage industry
Pulp and paper industry



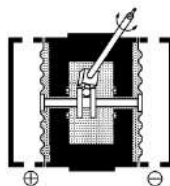
Technical specification	F5503-HP	
Dial size in mm	100	160
Construction	Cylindrical case	
Zero adjustment	Externally, at the top of the case	
Measuring principle	Dual diaphragm (principle see back side), safety design similar to solid front	
Range in mbar	40 60 100 160 250 400	
in bar	0,6 1 1,6 2,5 4 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 ¼ with plug	
Connection location	Lower	
Material		
Pressure connection	Stainless steel 316L (1.4404), optional Hastelloy C4	
Pressure chamber	Stainless steel 316L (1.4404), optional Hastelloy C4, 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 II 2 GD c 95 °C IP65 File no. 35106158 at notified body 0044, TÜV NORD CERT	
Protection according to 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	17,3/17,5	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	

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	(MBAR)	(=) Standard no filling	(NH) Tagging wired
(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)	(6B) Cleaned for Oxygen service (body filled with halocarbon) (YW) Case material 316L (1.4404) (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
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

Stainless steel differential pressure gauge

Model F5509 and F6509

Max. static pressure 25 bar

Nominal size 100 mm or 160 mm

Accuracy: Class 2,5, optional class 1,6 (EN)

Features

- Stainless steel case and wetted parts
- Static pressure 10 bar or 25 bar
- Protection IP54 or IP65
- Chamber purge and bleed connection available
- High corrosive resistance
- Dry or liquid filled
- Optional solid front

Ranges

0 ... 25 mbar up to 0 ... 250 mbar (max. static pressure 10 bar)

0 ... 400 mbar up to 0 ... 25 bar (max. static pressure 25 bar)

Applications

Chemical and petrochemical industry

Machine and apparatus construction

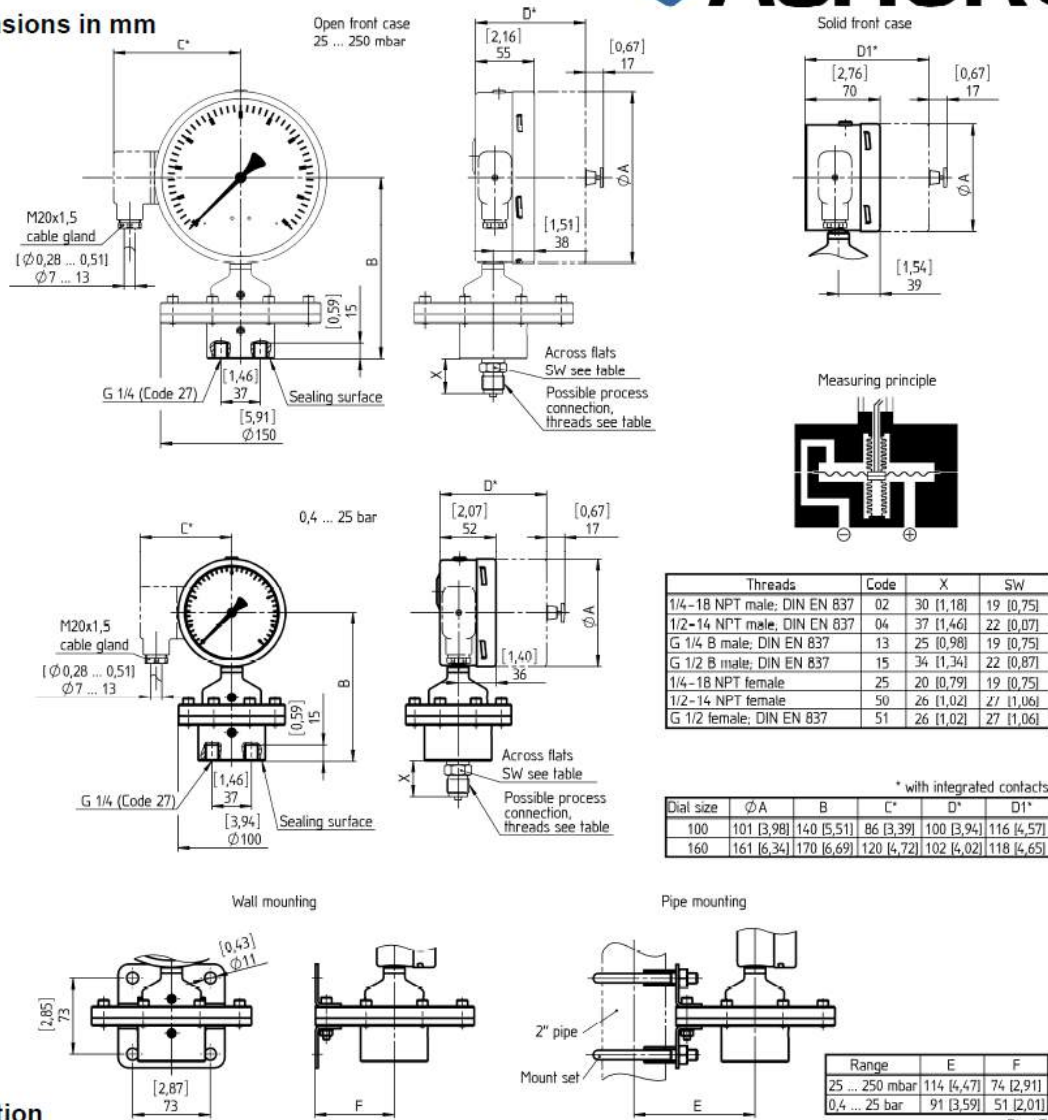
Food and beverage industry

Pulp and paper industry



Technical specification	F5509		F6509	
	100	160	100	160
Dial size in mm	100	160	100	160
Construction	Open front cylindrical case with blow out disc at the back		Solid front safety pattern cylindrical case with blow out at the back	
Zero adjustment	Externally, at the top of the case			
Measuring principle	Diaphragm (see back side)			
Range in mbar	25	40	60	100
in bar	0,6	1	1,6	2,5
Max. static pressure	4	6	10	16
Pressure type	25			
Process connection	Range < 400 mbar static pressure = 10 bar (10 times F.S. load at one side) Range ≥ 400 mbar static pressure = 25 bar (10 times F.S. load at one side) Differential			
Connection location	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			
Material	Lower			
Pressure connection	Stainless steel 316L (1.4404)			
Pressure chamber	Stainless steel 316L (1.4404), Viton O-ring, EPDM on request			
Measuring diaphragm	≤ 400 mbar stainless steel 316Ti (1.4571) ≥ 0,6 bar Duratherm 2.4781 (NiCrCo alloy)			
Bellows	Stainless steel 316Ti (1.4571)			
Case/bayonet ring	Stainless steel 304 (1.4301)			
Window	Laminated safety glass			
Dial	Aluminum, black markings on white background			
Pointer	Aluminum, black, optional red set hand or maximum pointer			
Movement	Stainless steel 304/303 (1.4301/1.4305)			
Accuracy	Class 2,5 (2,5 % F.S.), optional (for ranges ≥ 60 mbar) class 1,6 (1,6 % F.S.)			
Permissible	-25 ... 85 °C			
Ambient temperature	Max. 100 °C			
Medium temperature	-40 ... 60 °C			
Storage temperature	Max. 0,3 % / 10 K			
Effect	IP54 (dry), IP65 (liquid filled), optional IP65 for dry gauges			
Protection according EN 60 529/IEC 529	Glycerin, silicone, others on request			
Filling liquids	Direct, optional wall or 2" pipe mounting, others on request			
Mounting	≤ 400 mbar 9/9,5			
Weight dry/filled in kg	range	≤ 400 mbar 9,4/10	≤ 400 mbar 9/9,5	≤ 400 mbar 9,4/10
		≥ 600 mbar 4,4/5	≥ 600 mbar 4/4,5	≥ 600 mbar 4,4/5
Accessories, options	3 or 5 way manifolds, valves, gauges with contacts (see data sheet G1.K55/E)			

General dimensions in mm



Order information

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineer-in unit	Filling/contacts	Options
(100) 100 mm	F5509	(S) Pressure compartment 316L (1.4404)	(=) IP54 standard case	(27) G ¼ female	(L) Lower	0/ 25 0/ 40 0/ 60	MBAR	(=) Standard no filling	(NH) Tagging wired
(160) 160 mm	F6509	Diaphragm ≤ 400 mbar 316Ti (1.4571), ≥ 0,6 bar Duratherm Bellows 316Ti (1.4571)	(L) Liquid filled IP65	(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		0/ 100 0/ 160 0/ 250 0/ 400 0/ 0,6 0/ 1 0/ 1,6 0/ 2,5 0/ 4 0/ 6 0/ 10 0/ 16 0/ 25 max. static pressure for < 400 mbar 10 bar for ≥ 400 mbar 25 bar	BAR	(GV) Silicone (admissible for inductive contacts) (GT) Napvis (admissible for magnetic spring contacts) (GR) Glycerin () Contact type and function (see data sheet G1.K55/E)	(DA) Dial marking (FW) Wall mounting bracket (TM) 2" pipe mounting bracket (EP) Maximum pointer adjustable (LJ) Field fillable IP65 (only for execution "=")

Order example

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/contacts	Options
100	F5509	S	L	27	L	0/16	BAR	GV	TM

Stainless steel differential pressure gauge

Model F5510

Max. static pressure 100 bar

Nominal size 100 mm

Accuracy: Class 2,5 (EN), optional 1,6 %



Features

- Stainless steel case and wetted parts
- Static pressure 100 bar, one side load permitted
- Protection IP65
- High corrosive resistance
- Dry or liquid filled
- Smooth internal surface without recesses
- Flush dual diaphragm, safety design

Ranges

0 ... 1 bar up to 0 ... 16 bar

Applications

Chemical and petrochemical industry

Machine and apparatus construction

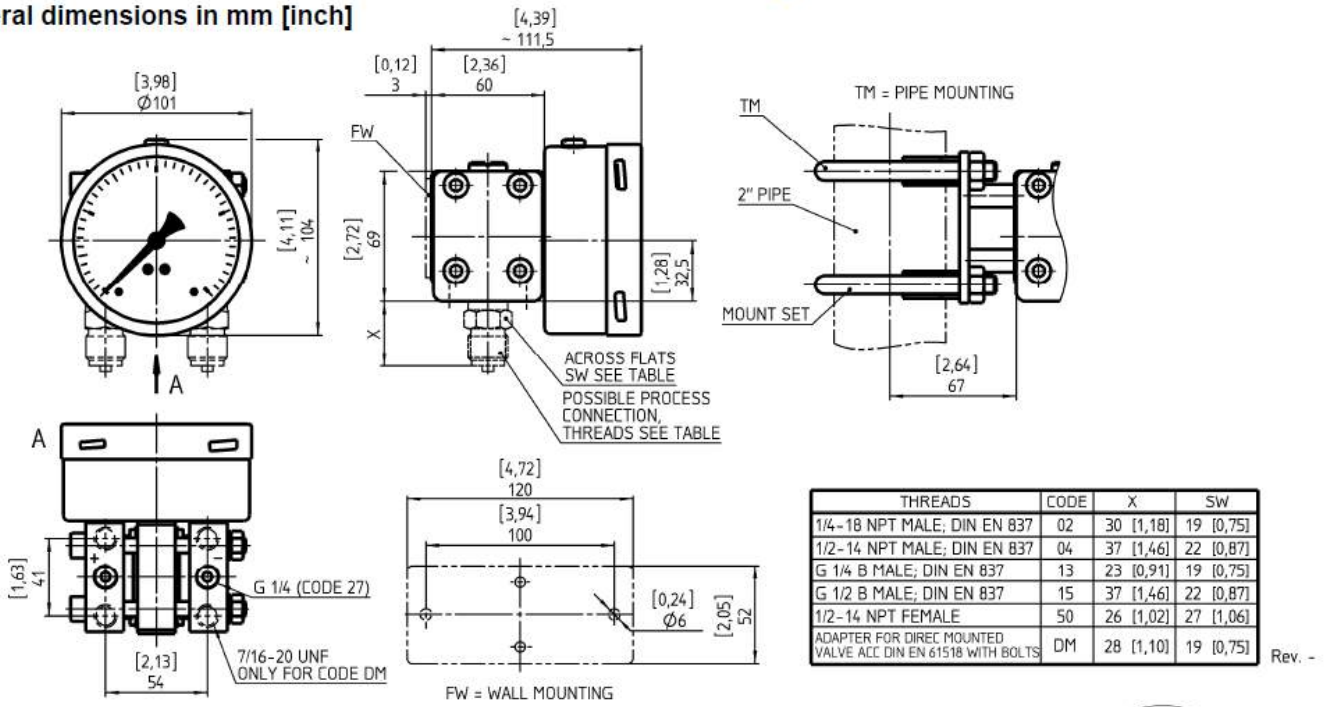
Food and beverage industry

Pulp and paper industry



Technical specification	F5510
Dial size in mm	100
Construction	Cylindrical case with bayonet ring
Zero adjustment	Micro adjustment pointer
Measuring principle	Dual diaphragm (see back side), safety design
Range in bar	1 1,6 2,5 4 6 10 16
Max. static pressure	100 bar
Overload capability	Static pressure is also maximum pressure allowed on one side
Pressure type	Differential
Process connection	G ¼ B female, G ½ B male ¼ NPT male, ¼ NPT female, ½ NPT female, Adapter for direct mounted valve acc. DIN EN 61518 with bolts, others on request
Connection location	Lower
Material	
Pressure connection	Stainless steel 316L (1.4404), optional Hastelloy C
Pressure chamber	Stainless steel 316L (1.4404), optional Hastelloy C, Viton O-ring, optional PTFE coated gaskets
Separating diaphragm	Hastelloy C
Intermediate plate	AlMgSiPb HART-COAT®
Case/bayonet ring	Stainless steel 304 (1.4301), optional 316L (1.4404)
Movement	Stainless steel 304 (1.4301)
Window	Laminated safety glass
Dial	Aluminum, black markings on white background
Pointer	Aluminum, black, micrometer adjustable, optional red set hand or minimum/maximum indication
Accuracy	Class 2,5 (2,5 % F.S.), optional 1,6 %
Permissible	
Ambient temperature	-20 ... 80 °C, with option ATEX -20 ... 60 °C
Medium temperature	Max. 100 °C
Storage temperature	-40 ... 60 °C
Effect	Max. 0,3 % / 10 K
Protection according EN 60 529/IEC 529	IP65
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. 35078199 at notified body 0032, TÜV NORD CERT
Filling liquids	Glycerin, silicone, others on request
Mounting	Direct, optional wall or 2" pipe mounting
Weight dry/filled in kg	2,2/2,5
Accessories, options	3 or 5 way direct or remote mounted manifolds, diaphragm seals, NACE/ISO 15156

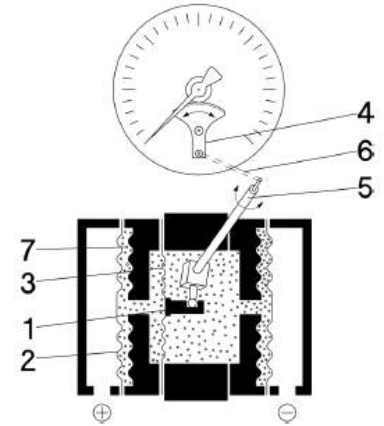
General dimensions in mm [inch]



Construction and Operation

The pressures to be compared act by separating two diaphragms hydraulically from the sensing diaphragm. When pressures are equal on both separating diaphragms they are at zero position. Pressure differences deflect the sensing diaphragm to the lower pressure side. The measurement is transmitted from the closed measuring system using a torque rod, and indicated on a 0-270° dial. When the measuring system is stressed on one side beyond the measuring range the separating diaphragms protect the measuring system from overload and damage.

- 1 Connecting rod
- 2 Separating diaphragm
- 3 Sensing diaphragm
- 4 Movement
- 5 Torque rod
- 6 Lever
- 7 Pressure transfer liquid



Order information

Size	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case	Options
(100) 100 mm	(SH) Pressure chamber 316L (1.4404) diaphragm Hastelloy C (HH) Pressure chamber and diaphragm Hastelloy C	(=) IP65 standard case (L) Liquid filled IP65	(27) G 1/4 female (02) 1/4 NPT male (04) 1/2 NPT male (15) G 1/2 B male (25) 1/4 NPT female (50) 1/2 NPT female (DM) Adapter for direct mounted valve acc. DIN EN 61518 with bolts	(L) Lower	0/ 1 0/ 1,6 0/ 2,5 0/ 4 0/ 6 0/ 10 0/ 16	(BAR)	(=) Standard no filling (GV) Silicone (GR) Glycerin (YW) Case material 316L (1.4404)	(NH) Tagging wired (AN) Accuracy class 1,6 (6B) Oxygen service (body filled with fluid S4) (CS) Dual scale (DA) Dial marking (FW) Wall mounting bracket (PT) PTFE gasket (TM) 2" pipe mounting bracket (LJ) Field fillable (only for execution =) (ATEX) ATEX listed
						psi and others on request		

Order example

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case	Option
100	F5510	S	=	50	L	0/1	BAR	=	NH

Differential pressure- switch/gauge Model F5511, F5512, F5513

Max. static pressure 25 bar

Nominal size housing 100 mm, indication 80 mm

Accuracy: Class 2,5

Features

- High repeatability of the switching point
- Static pressure 25 bar, one side load permitted
- Protection IP54
- Long service life
- One or two independently adjustable contacts

Ranges

0 ... 400 mbar up to 0 ... 25 bar

Applications

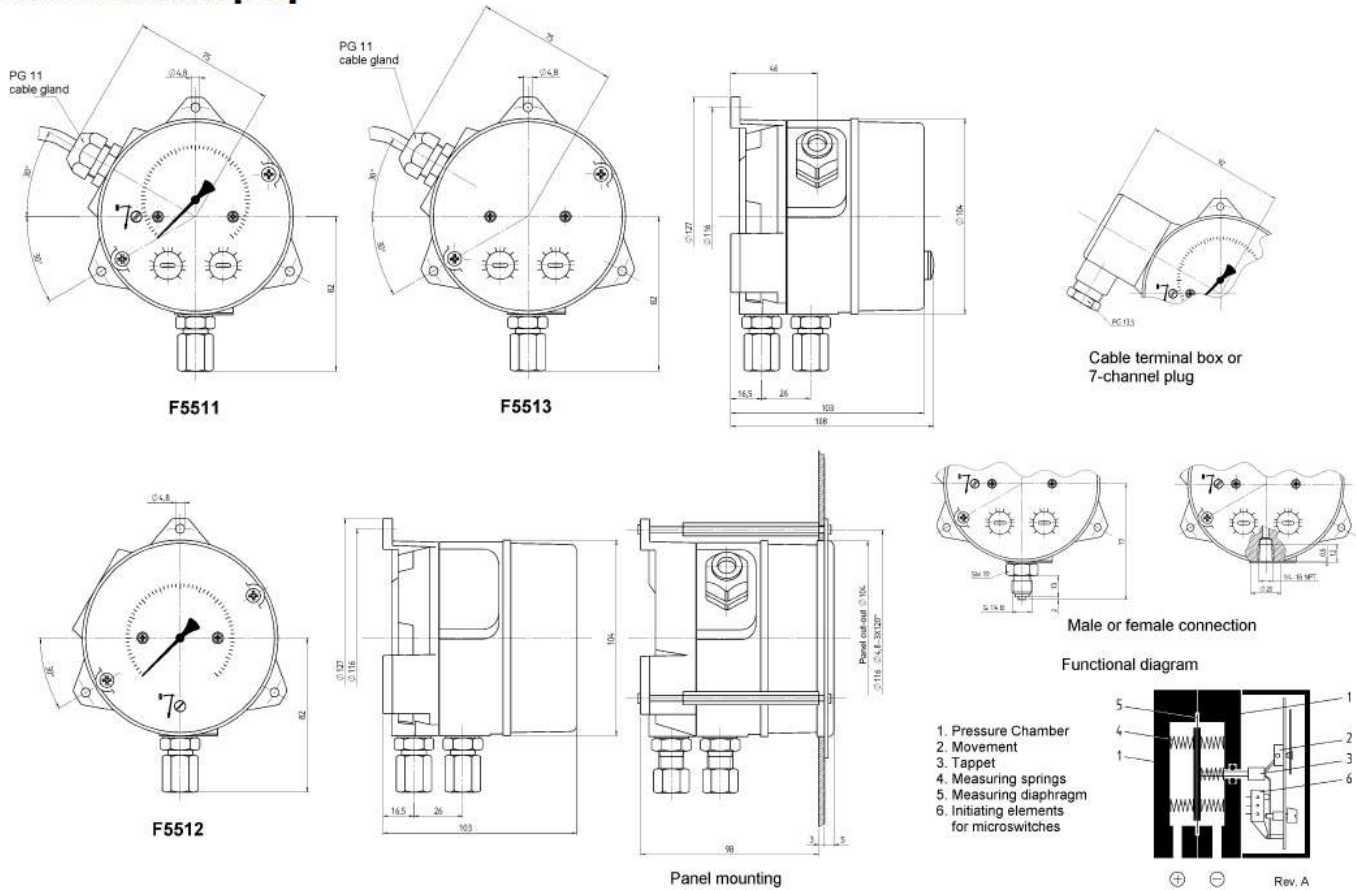
Heating and ventilation

Machine and apparatus construction

Pulp and paper industry



Technical specification	F5512	F5511	F5513
Housing size [mm]	100		
Construction	Open front cylindrical case		
Indication	Yes	Yes	No
Switch functions	No	1 or 2, external adjustable	1 or 2, external adjustable
Zero adjustment	Internal, located in dial		
Measuring principle	Diaphragm (see rear side)		
Range [mbar]	400		
Range [bar]	0,6 1 1,6 2,5 4 6 10 16 25		
Max. static pressure [bar]	6 10 16 25		
Max. pressure load	One sided overpressure up to nominal range, partial vacuum protected		
Pressure type	Differential		
Process connection	G ¼ B male, G ¼ female ¼ NPT male, ¼ NPT female, others on request		
Connection location	Lower		
Material	Pressure connection: Stainless steel 303 (1.4305) or steel Pressure chamber: Stainless steel 303 (1.4305), Aluminum or Aluminum Hart Coat® Measuring diaphragm/gaskets: NBR; Viton, for ranges ≥ 16 Duratherm/NBR or Duratherm/Viton other wetted parts: Stainless steel 301 (1.4310), 303 (1.4305) Window cover: Macrolon Dial: Aluminum, black markings on white background Pointer: Aluminum, black Movement: Stainless steel 304/303 (1.4301/1.4305)		
Accuracy	Class 2,5 (2,5 % F.S.)		
Electrical specification	Microswitch rating: 5 A 250 VAC (P max. 250 VA); 3 A 28 VDC Connection: Cable prewired, Angle connector acc. DIN EN 175301-803 Switch Hysteresis: Approx. 2,5 %		
Permissible	Ambient temperature: -10 ... 80 °C Medium temperature: Max. 85 °C Storage temperature: -10 ... 80 °C Effect: Max. 0,8 % / 10 K		
Protection according EN 60 529/IEC 529	IP54		
CE-Mark	Low voltage regulations EN 61010-1, EN 60947-1		
Mounting	Direct or wall, others on request		
Weight [kg]	Aluminum chamber 1,2; stainless steel chamber 3,5		
Accessories, options	3 or 4 way manifolds valves		



Order information

Type	Diaphragm, Gaskets	Pressure chamber	Process connection	Material connection	Connection orientation	Range	Eng. units	Microswitch contact	Electrical connection	Options
(F5511) Indicating with 1 or 2 micro-switches	(N) NBR ≤ 10 bar (V) Viton ≤ 10 bar	(S) 303 (1.4305) (A) Aluminium	(27) G ¼ female (02) ¼ NPT male	(B) Steel (S) Stainless steel 303 (1.4305)	(L) Lower	0/ 400 ¹⁾ 0/ 0,6 ²⁾ 0/ 1 ³⁾ 0/ 1,6 0/ 2,5 0/ 4 0/ 6 0/ 10 0/ 16 0/ 25	(MBAR) (BAR)	(=) Non (F5512) (1K) One SPDT (not F5512) (2K) Two SPDT independently adjustable (not F5512)	(=) Non (F5512) (F2) Cable connection (cable lengths to be specified in [m]) (M1) Angle connector according DIN EN 175301-803	(NH) Tagging wired (DA) Dial marking (FX) Panel mounting device 132 mm (V13) 3 way manifold (materials per pressure chambers) (V14) 4 way manifold including vent (materials per pressure chambers)
(F5512) Indicating	(DN) NBR gasket, Duratherm diaphragm	(AH) Aluminium Hart Coat®	(13) G ¼ B male							
(F5513) Non indicating with 1 or 2 micro-switches	(DV) Viton gasket, Duratherm diaphragm ≥ 16 bar		(25) ¼ NPT female Compressi on type fittings for mm OD tubing (6) 6 mm (8) 8 mm (10) 10 mm							
						max. static pressure 1) 6 bar 2) 10 Bar 3) 16 bar	psi and others on request			

How to order

Size	Type	Diaphragm Gaskets	Pressure chamber	Process connection	Material connection	Connection orientation	Range	Engineering units	Microswitch contacts	Electrical connection	Options
100	F5511	DN	S	27	S	L	0/16	BAR	2K	M1	NH