



PANAM
ENGINEERING
BEYOND
LIMITS

Pressure Gauges

- PANAM Pressure Gauges are available in SS 316 & SS 316L
- 63mm, 100mm, 115mm, 150mm etc
- Protection:- According to IP54 / IP65 / IP66 / IP67
- Dry or filled with glycerin, silicon, halocarbon other upon request
- Standard stem, optional panel, bracket, surface or others on request
- NACE, diaphragm seals, valves, electric contacts, dampener, gauge saver syphon etc.
- Overload protection 130%



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Introduction

PANAM[®] has emerged as renowned name in Global market for 'Instrumentation Fittings & Valves'. Since its inception in 1998 to present day, **PANAM**[®] has added new product every year and has broadened its product portfolio and its clientele base by supplying to potential customers worldwide. Key core values like Timely Delivery, Quality Consistency, Product Improvisation and after sales service has been instrumental in the phase wise evolution of company. Continuous improvement is the key to success, Customer feedback are taken with positive attitude and product are constantly groomed to a new quality and performance level to cope up with the competition. Our products are known for providing high-quality, high-reliability, low-cost options for the oil and gas industry. Over the year, the company has evolved from a product based company to a complete system solution provider. Over the coming years the entity of the company will attain state of the art operational efficiency for maintaining a competitive edge, with the advent increase in the utilization of its products in oil, gas and power sector.

PANAM[®] is having state of the art manufacturing facility span over an area of 65,000 sqft with a fleet of CNC machines, VMC machines, Semi-Automatic Lathe machines, High pressure test bench with SCADA control, Configuration centre for transmitters and dedicated R&D Team.

PANAM[®] offers Pressure Gauges in SS 316 & SS 316L, Dial Sizes in 63mm, 100mm, 115mm, 150mm etc., Protection according to IP54 / IP65 / IP66/IP67. Dry or filled with glycerin, silicon, halocarbon other upon request, Standard stem, optional panel, bracket, surface or others on request, NACE, diaphragm seals, valves, electric contacts, dampener, gauge saver syphon etc., Overload protection 130%.

Stainless Steel Process Gauges - Model PWPS

Nominal size 63 mm, 100 mm, 115 mm, 150 mm or
Accuracy: Class 1(1%) / Class 1.6 (1.6%) for 63mm

Features

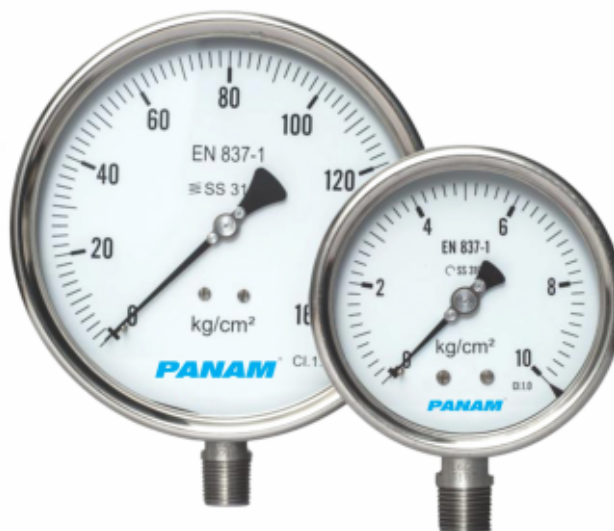
- Rugged stainless steel construction
- Measuring system stainless steel or Monel
- Socket and case welded
- Protection IP54, IP65, IP66 and IP67
- Usable to full scale
- Overload protection 130 %
- Dry, liquid filled
- Optional contacts
- Optional external Zero Adjustment

Ranges

-1 ... 0 kg/cm² up to 0 ... 2500 kg/cm²
-30 in. Hg ... 0 psi up to 0 ... 36,000 psi

Applications

Chemical & petrochemical industries, refineries
Fertilizer, thermal & nuclear power plants
OEM & machine apparatus

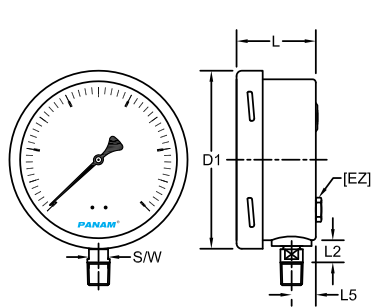


Technical specification	PWPS				
Dial size in mm	63	100	115	150	250
Construction	Open front cylindrical case with snap action bayonet ring with blow out disc				
Measuring principle	Bourdon tube				
Range in kg/cm2	0.6 1 1.6 2.5 4 6 10 16 25 40 60 100 160 250 400 600 1000 1600 2500 -1/0 -1/0.6 -1/1.5 -1/3 -1/5 -1/9 -1/15 -1/24				
Overpressure limit	130 % F.S., short time.				
Pressure type	Gauge, vacuum and compound				
Process connection	1/8" 1/4" 3/8" 1/2" BSP / NPT (M) , M20x1.5 (M) Others on request				
Connection location	Lower, back				
Material					
Pressure connection	Stainless steel 316, optional 316L, Monel				
Tube	Stainless steel 316, optional 316L, Monel				
Case/bayonet ring	Stainless steel 304 , optional 316L				
Window	Instrument glass, optional laminated safety glass, acrylic glass				
Dial	Aluminum, black markings on white background, others on request				
Pointer	Aluminum, black optional micrometer adjustment				
Movement	Stainless steel 304				
Accuracy	Class1.6(1.6% F.S)		Class 1 (1 % F.S.)		Class1 (1% F.S.), optional 0.5% F.S.
Permissible					
Ambient temperature	-25 ... 60 °C				
Medium temperature	Max. 200 °C (dry), max. 100 °C (for liquid filled)				
Storage temperature	-40 ... 60 °C				
Effect	Max. 0,3 % / 10 K				
Protection according	IP54/IP65/IP66/IP67				
Conformity according to RL 94/9/EC appendix X for mechanical equipment in potential hazardous areas (for 63mm only)	Optional, Marking CE EX II 2 GD c File no. XXXXXXXX at notified body 0044, TUV NORD CERT (only with safety glass)				
Filling liquids	Glycerin, silicone, halocarbon, others on request				
Mounting	Standard stem, optional panel, bracket, surface or others on request				
Weight dry/filled in kg	0.1/0.17	0.51 / 0.86	0.53/0.88	0.88 / 1.78	2.02 /3.52
Accessories, options	NACE, diaphragm seals, valves, electric contacts, dampener, gauge saver, syphon etc				

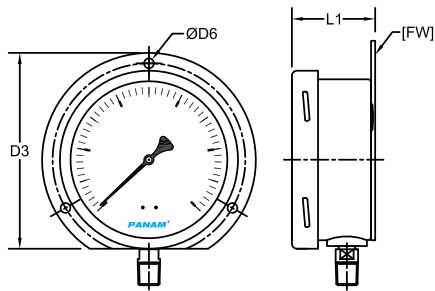
All specifications are subject to change without notice.

Stainless Steel Process Gauges - Model PWPS

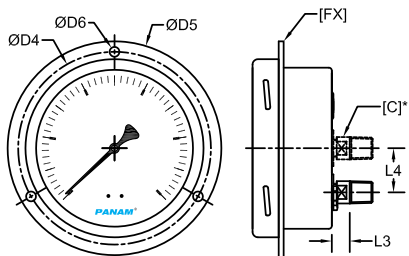
General dimensions in mm



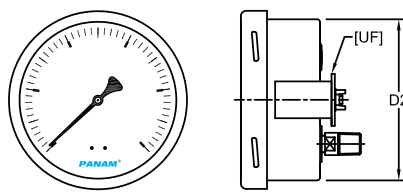
Lower Connection Direct Mounting



Lower Connection Surface Mounting



Back Connection Front Panel Mounting



Back Connection U-Clamp Mounting

DIAL SIZE	63	100	115	150	250
ØD1	68.6	109	127	166	265
ØD2	61.6	98.5	114.5	152	252
D3	78	122	140	176	-
D4	75	118	136	178	-
D5	85	132	152	192	-
D6	3.6	6	6	6	-
D7	75	118	136	168	-
L	33	49	49	49	51.5
L1	37	51.5	51.5	51.5	-
L2	13	16	16	16	18
L3	13	16	16	16	16
L4	19	27	27	27	50
L5	10.8	14.8	14.8	15.5	14.8
SW	11	17	17	17	17

[C]* for 63mm only

Order information

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering units	Filling/case material	Options		
(63) 63mm	PWPS	(S) Socket 316, 316	(D) IP54	(04)1/2" NPT (M) ¹⁾	(L) Lower	-1/ 0 -1/ 0.6	(kg/cm2)	(=) Standard no filling	(NH) Tagging wired		
(100) 100 mm			(L) IP65	(03)3/8" NPT (M) ¹⁾	(B) Back	-1/ 1.5 -1/ 3		(GV) Silicone ⁵⁾	(DA) Dial Marking		
(115) 115mm			(R) IP66	(02)1/4" NPT (M)	(C) Centre back ²⁾	-1/ 5 -1/ 9		(GR) Glycerin ⁵⁾	(CS) Dual Scale		
(150) 150mm		(L) Socket and Tube 316L	(N) IP67	(01)1/8" NPT (M)		-1/ 15 -1/ 24		(GX) Halocarbon ⁵⁾	(OF) Oil free		
(250) 250mm		(P) Socket and Tube Monel ¹⁾		(15)1/2" BSP (M) ¹⁾		0/ 0.6 ¹⁾ 0/ 1 0/ 1.6 0/ 2.5		(YW) Case material 316L (1.4404)	(MP) Micrometer pointer ¹⁾		
				(14)3/8" BSP (M) ¹⁾		0/ 4 0/ 6 0/ 10 0/ 16 0/ 25 0/ 40 0/ 60 0/ 100 0/ 160 0/ 250 0/ 400 0/ 600 0/ 1000 0/ 1600 ¹⁾ 0/ 2500 ¹⁾			(PD) Acrylic glass		
				(13)1/4" BSP (M)						(SG) Safety glass	
				(12)1/8" BSP (M)						(FX) Front panel	
				(16)M20x1.5(M) ¹⁾						(EC) Contact type and function (see EC.1) ¹⁾³⁾⁵⁾	(FW) Surface plate
				(KQ)1/2" BSPT (M) ¹⁾							(UF) U-clamp
				(KR)3/8" BSPT (M) ¹⁾							(TU) Throttle screw
				(KA)1/4" BSPT (M)							(EZ) External Zero adjustment ¹⁾⁶⁾
											(AJ) Calibration 0.5 % F.S. ⁴⁾
									(PR) Receiver gauge ¹⁾		
									(ATX) ATEX listed ⁷⁾		

1) Not for size 63mm 2) For 63mm only 3) For dry gauges only 4) For 150 mm, 250 mm 5) Not for 0.6 kg/cm² 6) not for 250 mm
7) Safety glass (SG) mandatory for Ex-proof and for 63mm only

How to order

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/Case material	Option
150	PWPS	S	L	04	L	0/16	KG/CM2	NA	NH

All specifications are subject to change without notice.

Stainless Steel Liquid Filled Gauges - Model PGFS

Nominal size: 63 mm (2.5"), 100 mm (4")
 ASME B40.100 / EN 837-1 / IS-3624
 Accuracy: Class 1.6 (1.6%) for 63 mm, Class 1 (1%) for 100 mm

Features

- Rugged stainless steel construction
- Socket and case welded
- Protection IP65
- Usable to full scale
- Overload protection 130 %
- Dry or liquid filled
- Measuring system stainless steel

Ranges

-30 in. Hg ... 0 psi up to 0 ... 23,000 psi
 -1 ... 0 bar up to 0 ... 1600 bar & kg/cm²
 -100 ... 0 kPa up to 0 ... 160,000 kPa

Applications

Power packs
 Hydraulic machinery
 HVAC & Refrigeration
 Pumps
 Power plants
 Pipelines
 Transmission stations

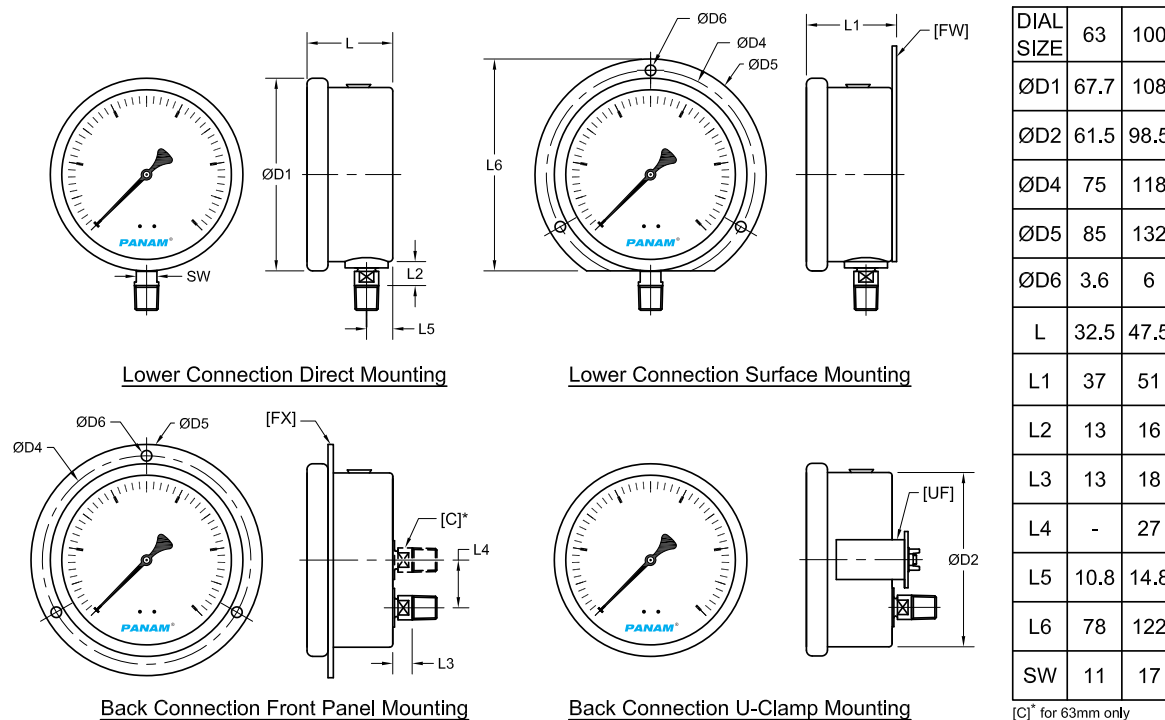


Technical specification	PGFS	
Dial size in mm	63	100
Construction	Open front cylindrical case with crimp type bezel ring	
Measuring principle	Bourdon tube	
Range in kg/cm ² (or bar)	1 1.6 2.5 4 6 10 16 25 40 60 100 160 250 400 600 1000 1600 -1/0 -1/0.6 -1/1.5 -1/3 -1/5 -1/9 -1/15 -1/24	
Overpressure limit	130 % F.S., short time.	
Pressure type	Gauge, vacuum and compound	
Process connection	1/8" 1/4" BSP / NPT (M)	1/4" 3/8" 1/2" BSP / NPT (M), M20x1.5(M)
Connection location	Lower, back	
Material	Pressure connection: Stainless steel 304, 316, 316L Tube: Stainless steel 316, optional 316L Case/bayonet ring: Stainless steel 304, optional 316L Window: Acrylic glass, optional laminated safety glass Dial: Aluminum, black markings on white background Pointer: Plastic, Black Movement: Stainless steel 304	
Accuracy	Class 1.6 (1.6% F.S)	Class 1 (1 % F.S.)
Permissible	Ambient temperature: -40 ... 60 °C (-40 ... 140 °F) Medium temperature: Max. 200 °C (392 °F) (dry), max. 100 °C (212 °F) (for liquid filled) Storage temperature: -40 ... 65 °C (-40 ... 150 °F) Effect: Max. 0,3 % / 10 K	
Protection according	IP65	
Conformity according to 2014/34/EU for mechanical equipment in potential hazardous areas (for 63mm only)	Optional, Marking CE EX II 2G Ex h IIC T6..T1 Gb X CE EX II 2D Ex h IIC T85..T450C Db X File no. 35173976 at notified body 0044, TUV NORD CERT (only with safety glass)	
Filling liquids	Glycerin, silicone, halocarbon, others on request	
Mounting	Standard stem, optional panel, bracket, surface or others on request	
Weight with liquid filling in kg	0.21	0.75
Accessories, options	Diaphragm seals, valves, dampener, gauge saver, etc	

All specifications are subject to change without notice.

Stainless Steel Liquid Filled Gauges - Model PGFS

General dimensions in mm



Order information

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering units	Filling/case material	Options
(63) 63 mm	PGFS	(S) Socket 316, Tube 316 (L) Socket and Tube 316L	(L) IP 65	(04) 1/2" NPT (M) ¹⁾	(L) Lower	-1/ 0	kg/cm2 (bar)	(=) No filling	(NH) Tagging wired
(100) 100 mm				(03) 3/8" NPT (M) ¹⁾	(B) Back	-1/ 0.6		(GV) Silicone	(DA) Dial Marking
				(02) 1/4" NPT (M)	(C) Center back ²⁾	-1/ 1.5		(GR) Glycerin	(CS) Dual Scale
				(01) 1/8" NPT (M) ²⁾		-1/ 3		(GX) Halocarbon	(OF) Oil free
				(15) 1/2" BSP(M) ¹⁾		-1/ 5		(YW) Case material 316L (1.4404)	(SG) Safety glass ²⁾
				(14) 3/8"BSP(M) ¹⁾		-1/ 9			(FX) Front panel
				(13) 1/4" BSP(M)		-1/ 15			(FW) Surface plate
				(12) 1/8" BSP(M) ²⁾		-1/ 24			(UF) U-clamp
				(16) M20x1.5(M) ¹⁾		0/ 1			(AT) ATEX listed ³⁾
						0/ 1.6			
						0/ 2.5			
						0/ 4			
						0/ 6			
						0/ 10			
						0/ 16			
						0/ 25			
						0/ 40			
						0/ 60			
						0/ 100			
						0/ 160			
						0/ 250			
						0/ 400			
						0/ 600			
						0/ 1000			
						0/ 1600 ¹⁾			
							Equivalent ranges in kPa, MPa, psi, bar and others units available		

1) Not for 63mm 2) For 63 mm only 3) Safety glass(SG) mandatory for Ex-proof and for 63mm only

How to order

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case material	Option
63	PGFS	S	L	02	L	0/16	KG/CM2	=	NH

All specifications are subject to change without notice.

All Stainless Steel Safety Process Gauges - Model PSFS

Nominal size: 100 mm (4"), 115 mm (4.5"), 150 mm (6")
ASME B40.100 / EN 837-1 / IS-3624
Accuracy: Class 1 (1%)

Features

- Solid front type construction
- Rugged stainless steel construction
- Measuring system stainless steel or Monel
- Socket and case welded
- Protection IP54, IP65 and IP66
- Usable to full scale
- Overload protection 130 %
- Dry, liquid filled
- Optional external Zero Adjustment

Ranges

-30 in. Hg ... 0 psi up to 0 ... 36,000 psi
-1 ... 0 bar up to 0 ... 2500 bar & kg/cm²
-100 ... 0 kPa up to 0 ... 250,000 kPa

Applications

Chemical, petrochemical industry, petroleum refinery
Fertilizer, thermal & nuclear power generation industry
Machine and apparatus construction

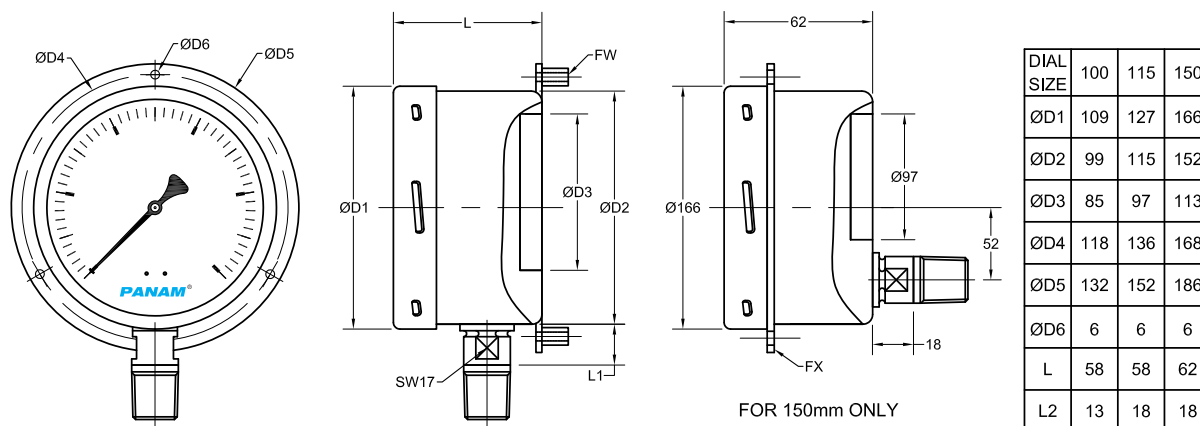


Technical specification	PSFS		
Dial size in mm	100	115	150
Construction	Solid front safety pattern cylindrical case with blowout at the back		
Measuring principle	Bourdon tube		
Range in kg/cm ² (or bar)	0.6 1 1.6 2.5 4 6 10 16 25 40 60 100 160 250 400 600 1,000 1,600 2,500 -1/0 -1/0.6 -1/1.5 -1/3 -1/5 -1/9 -1/15 -1/24		
Overpressure limit	130 % F.S., short time.		
Pressure type	Gauge, vacuum and compound		
Process connection	1/4" 3/8" 1/2" BSP / NPT (M) , M20x1.5 (M), Others on request		
Connection location	Lower, back(for 150 mm only)		
Material	Pressure connection Tube Case/bayonet ring Window Dial Pointer Movement		
Accuracy	Class 1 (1 % F.S.), optional 0.5 % F.S.		
Permissible	Ambient temperature Medium temperature Storage temperature Effect		
Protection according	IP54 / IP65 / IP66		
Filling liquids	Glycerin, silicone, halocarbon, others on request		
Mounting	Standard stem, optional flush, surface		
Weight dry/filled in kg	0.63 / 1.02	0.76 / 1.65	1.14 / 2.08
Accessories, options	NACE compliance, diaphragm seals, valves, electric contacts, dampener, gauge saver, syphon etc		

All specifications are subject to change without notice.

All Stainless Steel Safety Process Gauges - Model PSFS

General dimensions in mm



Order information

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineer ing units	Filling/Case material	Options
(100) 100 mm	PSFS	(S) Socket 316, Tube 316	(D) IP54	(04)1/2" NPT (M)	(L) Lower	-1/ 0	kg/cm2 (bar)	(=) Standard no filling	(NH) Tagging wired
(115) 115mm		(L) Socket and Tube 316L	(L) IP65	(03)3/8" NPT (M)	(B) Back ²⁾	-1/ 0.6		(GV) Silicone ¹⁾	(DA) Dial Marking
(150) 150mm			(02)1/4" NPT (M)	-1/ 1.5		(GR) Glycerin ¹⁾		(CS) Dual scale	
			(15)1/2" BSP (M)	-1/ 3		(GX) Halocar-bon ¹⁾		(OF) Oil free	
			(14)3/8" BSP(M)	-1/ 5		(YW) Case material 316L (1.4404)		(MP) Micrometer pointer	
			(13)1/4" BSP(M)	-1/ 9				(EZ) External Zero adjustment ³⁾	
			(16)M20x1.5(M)	-1/ 15				(FX) Front panel	
				-1/ 24				(FW) Surface plate	
				0/ 0.6				(TU) Throttle screw	
				0/ 1				(AJ) Calibration 0.5 % F.S. ²⁾	
				0/ 1.6				(AV) Anti-Vibration ⁴⁾	
			0/ 2.5						
			0/ 4						
			0/ 6						
			0/ 10						
			0/ 16						
			0/ 25						
			0/ 40						
			0/ 60						
			0/ 100						
		0/ 160							
		0/ 250							
		0/ 400							
		0/ 600							
		0/ 1000							
		0/ 1400							
		0/ 1600							
		0/ 2500							
		Others on request							
						Equivalent ranges in kPa, MPa, psi,bar and others units available			Others on request

1) Not for range 0.6 kg/cm² 2) For size 150mm and range up to 0/700 kg/cm² only 3) For size 150mm & lower connection only 4) For pressure ranges ≥ 2.5 kg/cm² & available with limited options, Halocarbon filling not allowed & consult engineering.

How to order

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/Case material	Option
100	PSFS	S	L	04	L	0/16	KG/CM2	=	NH

All specifications are subject to change without notice.

Stainless Steel Process Gauges - Model PZPS

Nominal size: 100 mm (4"), 115 mm (4.5"), 150 mm (6")
 ASME B40.100 / EN 837-1 / IS-3624
 Accuracy: Class 1 (1%)

Features

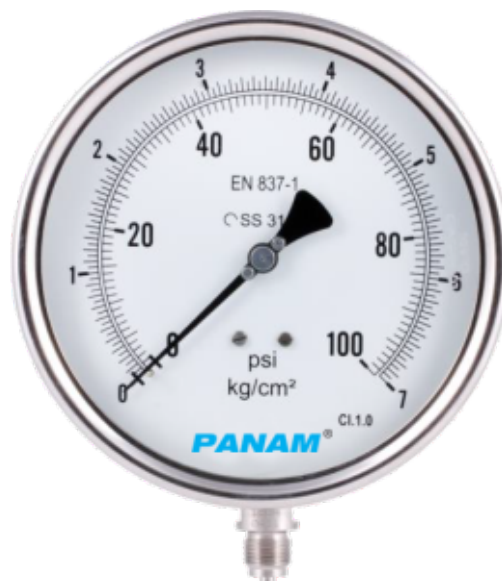
- Rugged stainless steel construction
- Socket and case welded
- Protection IP65, IP66 and IP67
- Usable to full scale
- Overload protection 130 %
- Dry, liquid filled
- Optional contacts
- Optional external Zero Adjustment

Ranges

-30 in. Hg ... 0 psi up to 0 ... 15,000 psi
 -1 ... 0 bar up to 0 ... 1000 bar & kg/cm²
 -100 ... 0 kPa up to 0 ... 100,000 kPa

Applications

Chemical & petrochemical industries, refineries
 Fertilizer, thermal & nuclear power plants
 OEM & machine apparatus

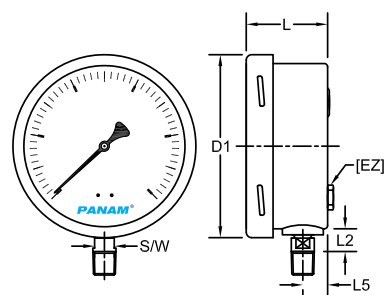


Technical specification	PZPS		
Dial size in mm	100	115	150
Construction	Open front cylindrical case with snap action bayonet ring with blow out disc		
Measuring principle	Bourdon tube		
Range in kg/cm ² (or bar)	0.6 1 1.6 2.5 4 6 10 16 25 40 60 100 160 250 400 600 1000 -1/0 -1/0.6 -1/1.5 -1/3 -1/5 -1/9 -1/15 -1/24		
Overpressure limit	130 % F.S., short time.		
Pressure type	Gauge, vacuum and compound		
Process connection	1/8" 1/4" 3/8" 1/2" BSP / NPT (M) , M20x1.5 (M) Others on request		
Connection location	Lower, back		
Material	Pressure connection: Stainless steel 316, optional 316L Tube: Stainless steel 316, optional 316L Case/bayonet ring: Stainless steel 304 , optional 316L Window: Toughened glass, optional Safety Glass, acrylic glass Dial: Aluminum, black markings on white background, others on request Pointer: Aluminum, black optional micrometer adjustment Movement: Stainless steel		
Accuracy	Class 1 (1 % F.S.)		
Permissible	Ambient temperature: -40 ... 60 °C (-40 ... 140 °F) Medium temperature: Max. 200 °C (392 °F) (dry), max. 100 °C (212 °F) (for liquid filled) Storage temperature: -40 ... 65 °C (-40 ... 150 °F) Effect: Max. 0.3 % / 10 K		
Protection according	IP65 / IP66 / IP67		
Filling liquids	Glycerin		
Mounting	Standard stem, optional panel, bracket, surface or others on request		
Weight dry/filled in kg	0.51 / 0.86	0.64/0.99	0.88 / 1.78
Accessories, options	NACE, diaphragm seals, valves, dampener, gauge saver, syphon etc		

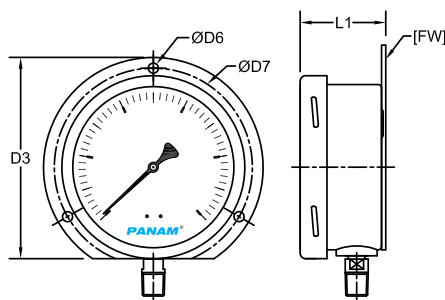
All specifications are subject to change without notice.

Stainless Steel Process Gauges - Model PZPS

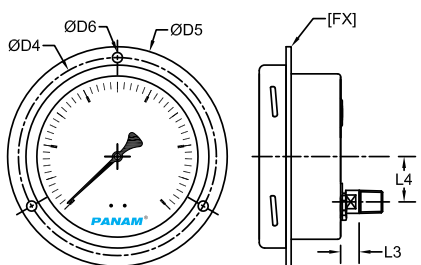
General dimensions in mm



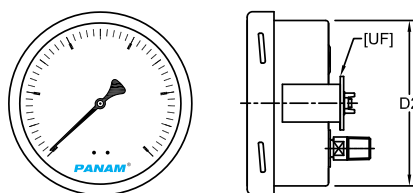
Lower Connection Direct Mounting



Lower Connection Surface Mounting



Back Connection Front Panel Mounting



Back Connection U-Clamp Mounting

DIAL SIZE	100	115	150
ØD1	109	127	166
ØD2	98.5	114.5	152
D3	122	140	178
D4	118	136	178
D5	132	152	192
D6	6	6	6
D7	118	136	168
L	49	49	49
L1	51.5	51.5	51.5
L2	16	16	16
L3	16	16	16
L4	27	27	27
L5	14.8	14.8	15.5
SW	17	17	17

Order information

Size	Type	System material	Execution	Process Connection	Connection orientation	Range	Engineering units	Filling/case material	Options	
(100) 100 mm	PZPS	(S) Socket 316, Tube 316	(L) IP65 (R) IP66 (N) IP67	(04)1/2" NPT (M)	(L) Lower	-1/ 0 -1/ 0.6	kg/cm2 (bar)	(=) Standard no filling	(NH) Tagging wired	
(115) 115mm				(03)3/8" NPT (M)	(B) Back	-1/ 1.5 -1/ 3			(GV) Silicone ²⁾	(DA) Dial Marking
(150) 150mm				(02)1/4" NPT (M)		-1/ 5 -1/ 9			(GR) Glycerin ²⁾	(CS) Dual Scale
		(01)1/8" NPT (M)		-1/ 15	(GX) Halocar-bon ²⁾	(OF) Oil free				
		(15)1/2" BSP (M)		-1/ 24 0/ 0.6		(YW) Case material 316L (1.4404)		(MP) Micrometer pointer		
		(14)3/8" BSP(M)		0/ 1 0/ 1.6				(PD) Acrylic glass		
		(13)1/4" BSP(M)		0/ 2.5 0/ 4	(SG) Safety Glass					
		(12)1/8" BSP(M)		0/ 6 0/ 10		(FX) Front panel				
		(16)M20x1.5(M)		0/ 16 0/ 25		(FW) Surface plate				
		(KQ)1/2" BSPT (M)		0/ 40 0/ 60		(UF) U-clamp				
		(KR)3/8" BSPT (M)		0/ 100 0/ 160		(TU) Throttle screw				
		(KA)1/4" BSPT (M)		0/ 250 0/ 400		(TM) 2" Pipe mounting				
				0/ 600 0/ 1000		(AJ) Calibration 0.5 % F.S. ³⁾				
						(EZ) External Zero adjustment				
						Equivalent ranges in kPa, MPa, psi, bar and others units available				

1) Specify details 2) Not for 0.6 kg/cm² 3) only for size 150mm

How to order

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/Case material	Option
100	PZPS	S	L	04	L	0/16	KG/CM2	=	NH

All specifications are subject to change without notice.

Diaphragm Type Pressure Gauge - Model PSDS

Nominal size 100 mm or 150 mm
Accuracy: Class 1.6 (1.6%)

Features

- Stainless steel construction
- Suitable for corrosive environments
- Protection IP54
- Usable to full scale
- Overload protection 130%

Ranges

-25 ... 0 mbar up to 0 ... 2,5 kg/cm²
-250 ... 0 mmWC up to 0 ... 30 psi

Applications

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

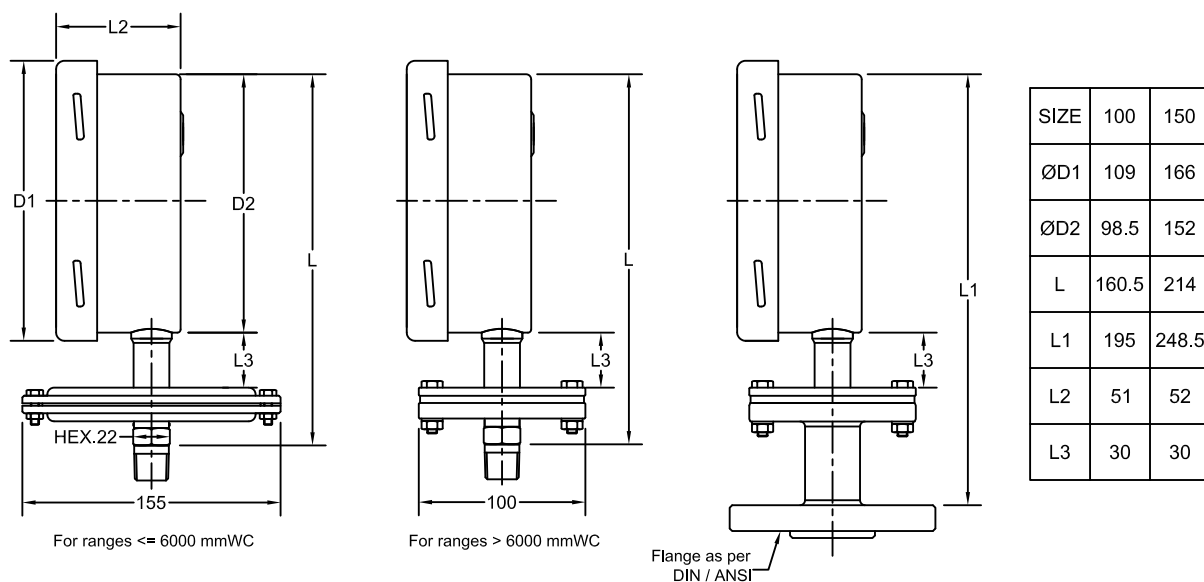


Technical specification	PSDS	
Dial size [mm]	100	150
Construction	Open front cylindrical case, optional with blow out disc at the back	
Measuring principle	Horizontal diaphragm	
Range [mmwc]	250 400 600 1000 1600 2500 4000 -250/0 -400/0 -600/0 -1000/0 -1600/0 -2500/0 -4000/0	
[kg/cm ²]	0,6 1,0 1,6 2,5 -1/0 -1/0,6 -1/1,5	
Overpressure limit	130 % F.S., short time.	
Pressure type	Gauge, vacuum and compound	
Process connection	1/4" 3/8" 1/2" BSP / NPT (M), M20x1.5(M) Direct flange as per DIN/ANSI Others on request	
Connection location	Lower	
Material	Process connection Stainless steel 316 optional Stainless steel 316L , PTFE lined Diaphragm Stainless steel 316L optional PTFE protected Case/bayonet ring Stainless steel 304 optional 316L Window Instrument glass optional laminated safety glass Dial Aluminum, black markings on white background Pointer Aluminum, black, optional micrometer adjustment Movement Stainless steel 304	
Accuracy	Class 1.6 (1.6 % F.S.)	
Permissible	Ambient temperature -25 ... 50 °C Medium temperature Max. 100 °C Storage temperature -40 ... 60 °C Effect Max. 0,5 % / 10 K	
Protection according	IP54, Optional IP65	
Mounting	Standard stem or flange	
Weight ≤ 600 mbar / > 600 mbar [kg]	1.66 / 1.26	1.99 / 1.59
Accessories, options	Valves, dampener, gauge saver, etc.	

All specifications are subject to change without notice.

Diaphragm Type Pressure Gauge - Model PSDS

General dimensions in mm



Order information

Size	Type	System material	Process connection	Rating	Facing	Range	Engineer - ing units	Blow out/case material	Options	
(100) 100 mm	PDPS	(S) Diaphragm 316L, flange 316	(04) 1/2" NPT (M)	(NA)	(T)	-250/ 0	(mmWC)	(=) Standard without blowout	(NH) Tagging wired	
(150) 150 mm			(L) Diaphragm 316L, flange 316L			(03) 3/8" NPT (M) ²⁾				-400/ 0
						(02) 1/4" NPT (M) ²⁾				-600/ 0
						(15) 1/2" BSP (M)				-1000/ 0
		(SP)Diaphragm 316L & flange 316, PTFE protected	(14) 3/8" BSP(M) ²⁾	-1600/ 0	(IP) Ingress protection IP65	(CS) Dual scale				
			(13) 1/4" BSP(M) ²⁾	-2500/ 0						
			(16) M20x1.5(M)	-4000/ 0						
			ANSI Flanged	(150) 150 lbs	(FF) Flat face ¹⁾	0/ 250	(RB) Blow out disc	(MP) Micrometer pointer		
			(05) 1/2"	(300) 300 lbs		0/ 400				
			(07) 3/4"	(600) 600 lbs	(RF) Raised face ¹⁾	0/ 600	(YW) Case material 316L (1.4404)	(SG) Safety glass		
			(10) 1"			0/ 1000				
			(15) 1 ½"			0/ 1600				
			(20) 2"			0/ 2500				
						0/ 4000	(kg/cm2)	(DA) Dial marking		
			DIN Flanged	(PN10)						
		(DN15)	(PN16)							
		(DN25)	(PN25)							
		(DN40)								
		(DN50)								
						psi and others on request				

1) The DIN-flange facing depends on nominal size and nominal pressure 2) Not for system material (SP)

How to order

Size	Type	System material	Process connection	Rating	Facing	Range	Engineering unit	Filling/Case material	Option
100	PDPS	S	04	NA	T	0/400	MMWC	=	NH

All specifications are subject to change without notice.

Liquid Filled Gauges - Model PGFB

Nominal size: 63 mm (2.5"), 100 mm (4")
ASME B40.100 / EN 837-1 / IS-3624
Accuracy: Class 1.6 (1.6%)

Features

- Twin o-ring design for leak tight enclosure
- Protection IP65
- Usable to full scale
- Overload protection 130 %
- Measuring tubes SS316 / PB
- Minimized pulsation, Vibration and pointer fluttering due to dampening effect

Ranges

-30 in. Hg ... 0 psi up to 0 ... 6,000 psi
-1 ... 0 bar up to 0 ... 400 bar & kg/cm²
-100 ... 0 kPa up to 0 ... 4,000 kPa

Applications

Power packs
Hydraulic machinery
Pumps
Other vibration applications

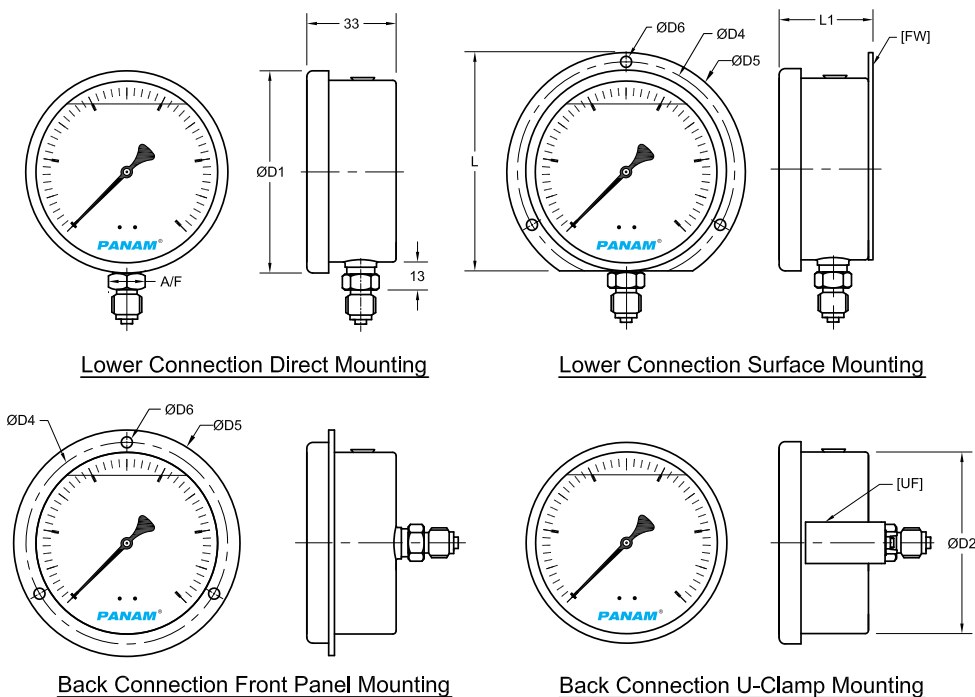


Technical specification	PGFB	
Dial size in mm	63	100
Construction	Open front cylindrical case with crimp type bezel ring	
Measuring principle	Bourdon tube	
Range in kg/cm ² (or bar)	1 1.6 2.5 4 6 10 16 25 40 60 100 160 250 400	
Overpressure limit	-1/0 -1/0.6 -1/1.5 -1/3 -1/5 -1/9 -1/15 -1/24	
Pressure type	130 % F.S., short time.	
Process connection	1/8" 1/4" BSP / NPT (M)	1/4" 3/8" 1/2" BSP / NPT (M)
Connection location	Lower, back	
Material	Brass Pressure connection Tube SS 316/ Phosphorous Bronze below 6 kg/cm ² , Brass Case/bayonet ring Stainless steel 304 Window Acrylic glass Dial Aluminum, black markings on white background Pointer Plastic, Black Movement Brass Aluminum, black	
Accuracy	Class 1.6 (1.6% F.S)	
Permissible	Ambient temperature -40 ... 60 °C (-40 ... 140 °F) Medium temperature Max. 100 °C (212 °F) Storage temperature -40 ... 65 °C (-40 ... 150 °F) Effect Max. 0.3 % / 10 K	
Protection according	IP65	
Filling liquids	Glycerin, silicone, others on request	
Mounting	Standard stem, optional panel, bracket, surface or others on request	
Weight with liquid filling in kg	0.22	0.48

All specifications are subject to change without notice.

Liquid Filled Gauges - Model PGFB

General dimensions in mm



Dial Size	63	100
ØD1	67.7	108
ØD2	61.6	98.6
ØD4	75	118
ØD5	85	132
ØD6	3.6	6
L	78	122
L1	36	37

Thread Size	A/F
1/8"	14
1/4"	14
3/8"	17
1/2"	22

Order information

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering units	Filling material	Options
(63) 63 mm (100) 100 mm	PGFB	(B) Socket Brass, Tube SS316 ²⁾	(L) IP 65	(04) 1/2" NPT (M) ¹⁾ (03) 3/8" NPT (M) ¹⁾ (02) 1/4" NPT (M) (01) 1/8" NPT (M) ³⁾ (15) 1/2" BSP(M) ¹⁾ (14) 3/8" BSP(M) ¹⁾ (13) 1/4" BSP(M) (12) 1/8" BSP(M) ³⁾ (16) M20x1.5(M) ¹⁾ Others on request	(L) Lower (C) Center back	-1/ 0 ²⁾ -1/ 0.6 ²⁾ -1/ 1.5 ²⁾ -1/ 3 ²⁾ -1/ 5 ²⁾ -1/ 9 -1/ 15 -1/ 24 0/ 1 ²⁾ 0/ 1.6 ²⁾ 0/ 2.5 ²⁾ 0/ 4 ²⁾ 0/ 6 ²⁾ 0/ 10 0/ 16 0/ 25 0/ 40 0/ 60 0/ 100 0/ 160 0/ 250 0/ 400	kg/cm2 (bar)	(=) No filling (GV) Silicone (GR) Glycerin	(NH) Tagging wired (DA) Dial Marking (CS) Dual Scale (FX) Front panel (FW) Surface plate (UF) U-clamp

1) Not for 63mm 2) Tube material Phosphorous Bronze for range below 6 kg/cm² 3) For 63 mm only

How to order

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case material	Option
63	PGFB	B	L	02	L	0/16	KG/CM2	=	NH

All specifications are subject to change without notice.

Diaphragm Seals Threaded Types - Model PDS20

ASME B40.100

Features

- Metal diaphragms with Teflon gasket
- Interchangeable components
- Removable top and bottom housing
- Variety of wetted parts materials

Ranges

15 psi up to 1000 psi
1 kg/cm² up to 100 bar & kg/cm²
100 kPa up to 10000 kPa

Applications

Chemical and petrochemical industry
Machine and apparatus construction
Offshore installations
Pulp and paper industry
Waste water treatment

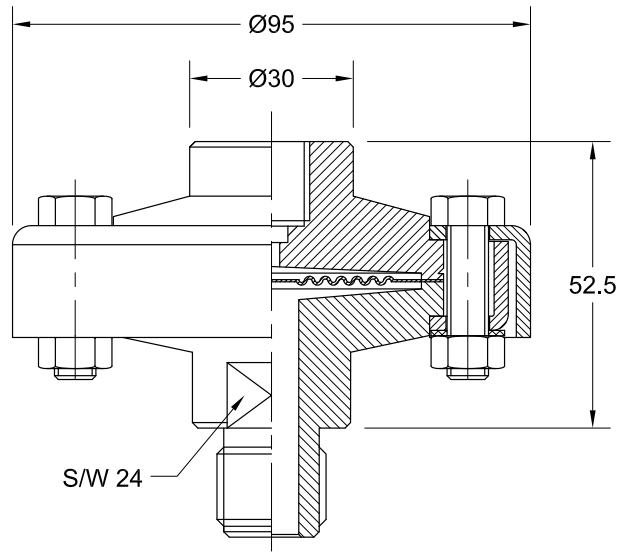


Technical specification	PDS20
Process connection size (ISO 228-1 / ASME B1.20.1)	1/4" 3/8" 1/2" BSP / NPT, M20x1.5, others on request
Construction	Bolted top and bottom housing, removable for easy maintenance
Fill port	At the side with stainless steel ball and set screw
Flushing connection	Optional flushing
Flushing connection size	1/4" NPT female
Maximum pressure	
Metal bottom housing [psi / bar]	1500 / 100
Other bottom housing [psi / bar]	150 / 10
Measuring principle	Diaphragm welded to top housing
Instrument connections [female]	3/8" BSP, 1/2" NPT, others on request
Material (wetted parts)	
Bottom housing	Stainless steel 316, 316L, Polypropylene, PVC, SS 316 with Teflon protection, Hastelloy-C 276
Diaphragm (metal type)	Stainless steel 316L Optional Hastelloy-C276
Diaphragm (other types)	Stainless steel 316L with Teflon protection
Material (non wetted parts)	
Top housing	Stainless steel 304, optional 316
Clamp rings	Steel painted black, optional stainless steel
Bolts and nuts	Stainless steel 300 series
Accuracy	Additional 0,5 % to the specified tolerance of the mounted instrument
Filling liquids (temperature range)	Glycerin (0/400 °F, -18/204 °C), Silicone (-40/600 °F, -40/315 °C), Halocarbon (-70/300 °F, -56/149 °C), Syltherm 800 (-40/750 °F, -40/400 °C), Vegetable oil (32/248 °F, 0/120 °C), Food grade silicone (-13/400 °F, -25/200 °C), Others on request, also depending on selected material and configuration.
Mounting	Direct or with capillary
Weight in kg	1.00
Accessories, options	NACE, pressure gauges, pressure switches, transducer, capillaries

All specifications are subject to change without notice.

Diaphragm Seals Threaded Types - Model PDS20

General dimensions in mm



Order information

Process connection	Type	Diaphragm	Bottom housing material	Instrument connection	Filling fluid	Options
(06) 1" NPT(M)	PDS20	(S) 316L	(S) 316	(14T) 3/8" BSP (F)	(CG) Glycerin (direct mounted, -18/204 °C)	(NH) Tagging wired
(05) 3/4" NPT(M)		(SP) 316L with teflon protection ¹⁾	(L) 316L	(04T) 1/2" NPT (F)	(CK) Silicone (direct mounted or with capillary, -40/315 °C)	(OF) Oil free (only filled with halocarbon)
(04) 1/2" NPT(M)		(SJ) 316L with teflon Coating ¹⁾	(SP) 316 with teflon lined ¹⁽³⁾		(CF) Halocarbon (direct mounted or with capillary, -56/149 °C)	(YT) Stainless steel 316 top housing
(03) 3/8" NPT(M)			(PP) Polypropylene ¹⁽²⁾	(HA) Syltherm 800 (direct mounted or with capillary, -40/400 °C)	(SE) Stainless steel clamp rings	
(02) 1/4" NPT(M)		(H) Hastelloy C	(V) PVC ¹⁽²⁾	(GZ) Vegetable oil (direct mounted or with capillary, 0/120 °C)	(PU) Flushing connection 1/4" NPT (F) ⁵⁾	
(18) 1" BSP(M)			(H) Hastelloy C	(CZ) Food grade silicone (direct mounted or with capillary, -25/200 °C)	(CA) Stainless steel armored capillary ⁴⁾	
(17) 3/4" BSP(M)					(CP) Stainless steel armored capillary with PVC sleeving ⁴⁾	
(15) 1/2" BSP(M)						
(14) 3/8" BSP(M)						
(13) 1/4" BSP(M)						
(16) M20x1.5(M)						
(06T) 1" NPT(F)						
(05T) 3/4" NPT(F)						
(04T) 1/2" NPT(F)						
(02T) 1/4" NPT(F)						
					others on request	⁴⁾ Max length 30m, specify length in meter EG. CP1.0 = CP with 1m

1) Restricted to maximum temperature 200 °C, pressure 40 bar
2) Max. Rating / temperature limit: 200 psi / 14 bar at 74 °F / 23 °C; 125 psi / 8.6 bar at 125 °F / 52 °C; 80 psi / 5.5 bar at 150 °F / 65 °C
3) Not for process connection (02), (13), (06T), (05T), (04T), (02T), not available with option PU
5) Not for (SP), (PP) & (V)

How to order

Process connection	Type	Diaphragm	Bottom housing material	Instrument connection	Filling fluid	Option
04	PDS20	S	S	14T	CK	CA1.0

All specifications are subject to change without notice.

Flush Type Flanged Diaphragm Seal - Model PDF50

Flanged connections to ANSI/ASME or EN

Features

- Welded diaphragm seal
- Variety of wetted parts material
- Filling port in the upper housing
- Suitable for pressure gauges, switches and transmitters

Size

1 ½", 2" & 3" ASME/ANSI
DN40, DN50 & DN80

Pressure Rating

From 150 lbs up to 2500 lbs
From PN10 up to PN160

Applications

Chemical and petrochemical industry
Machine and apparatus construction
Offshore installations
Pulp and paper industry

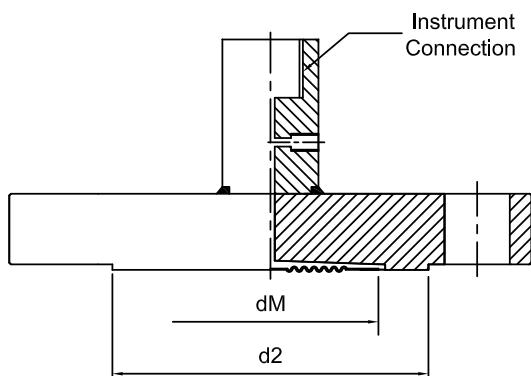


Technical specification	PDF50
Process connection size, flanged	
ANSI	1 ½", 2", 3"
DIN	DN40, DN50, DN80
Back up flange Rating	
ANSI	150 lbs, 300 lbs, 600 lbs, 900 lbs, 1500 lbs, 2500 lbs
DIN	PN10, PN16, PN25, PN40, PN64, PN100, PN160 others on request
Construction	Machined flange with welded flush diaphragm
Fill port	In upper housing side with stainless steel ball and set screw
Measuring principle	Diaphragm welded to flange
Instrument connections [female]	3/8" BSP(F), Others on request
Sealing surfaces	
ANSI/ASME	B16.5 RF, optional RTJ
EN	EN 1092-1 Form B1
Material (wetted parts)	
Diaphragm & contact surface	Stainless steel 316L, Optoinal 316L with PTFE protection, Hasteloy-C276
Material (non wetted parts)	
Instrument connection	Stainless steel 304
Capillary and armor	Stainless steel 316 and stainless steel 304
Filling liquids (temperature range)	Glycerin (0/400 °F, -18/204 °C), silicone (-40/600 °F, -40/315 °C), halocarbon (-70/300 °F, -56/149 °C), Syltherm 800 (-40/750 °F, -40/400 °C), vegetable oil (32/248 °F, 0/120 °C) Others on request, also depending on selected material and configuration.
Accuracy	Additional 0.5% to the specified tolerance of the mounted instrument
Mounting	Direct or with capillary
Weight dry in kg	Depending on flange size
Accessories, options	NACE, pressure gauges, pressure switches, transducers, capillaries

All specifications are subject to change without notice.

Flush Type Flanged Diaphragm Seal - Model PDF50

General dimensions in mm



SIZE	RATING	d2	dM	Min.Range Direct mounting (kg/cm ²)	Min.Range with Capillary (kg/cm ²)
DN 40	PN 10 ~ 160	88	40	4	10
DN 50	PN 10 ~ 160	102	63	1	1
DN 80	PN 10 ~ 160	138	63	1	1
1 1/2"	150 ~ 2500#	73.1	40	4	10
2"	150 ~ 2500#	91.9	63	1	1
3"	150 ~ 2500#	127	63	1	1

Order information

Process Size	Type	Diaphragm	Flange material	Instrument connection	Flange Rating	Flange Facing	Filling fluid	Options
ANSI Flanged (15)1½” (20)2” (30)3”	PDF50	(S) 316L	(S) 316	(14T) 3/8 BSP(F)	ANSI	(RF) Raised face ²⁾	(CG) Glycerin (direct mounted, -18/204 °C)	(NH) Tagging wired
		(SJ) 316L with Teflon Coating ¹⁾	(L) 316L		(150) 150 lbs (300) 300 lbs (600) 600 lbs (900) 900 lbs (1500) 1500 lbs (2500) 2500 lbs	(FF) Flat face ²⁾	(CK) Silicone (direct mounted or with capillary, -40/315 °C)	(OF) Oil free (only filled with halocarbon)
		(H) Hasteloy-C276	(SJ) 316 with PTFE coating ¹⁾				(CF) Halocarbon (direct mounted or with capillary, -56/149 °C)	(CA) Stainless steel armored capillary ³⁾
			(H) Hasteloy-C276				(HA) Syltherm 800 (direct mounted or with capillary, -40/400 °C)	(CP) Stainless steel armored capillary with PVC sleeving ³⁾
DIN Flanged (DN40) (DN50) (DN80)				others on request	DIN (PN10) (PN16) (PN25) (PN40) (PN64) (PN100) (PN160)		(GZ) Vegetable oil (direct mounted or with capillary, 0/120 °C)	
							others on request	3) Max length 30m, specify length in mm EG. CP1000 = CP with 1m

1) Restricted to temperature 200 °C 2) The DIN-flange facing depends on nominal size and nominal pressure

How to order

Process Size	Type	Wetted Parts	Flange material	Instrument connection	Flange rating	Flange facing	Filling fluid	Options
20	PDF50	S	S	14T	150	RF	CK	CA1000

All specifications are subject to change without notice.

Truncated Type Flanged Diaphragm Seal - Model PDF55

ASME B40.100

Features

- Welded diaphragm seal
- Variety of wetted parts material
- Filling port in the upper housing
- Suitable for pressure gauges, switches and transmitters
- Afford instrument protection from corrosives, heat and clogging issues associated with viscous media or solids

Size

2", 3" & 4" ASME/ANSI

Pressure Rating

150, 300 & 600 lbs

Applications

Chemical and petrochemical industry
Machine and apparatus construction
Corrosive processes
Elevated process temperatures

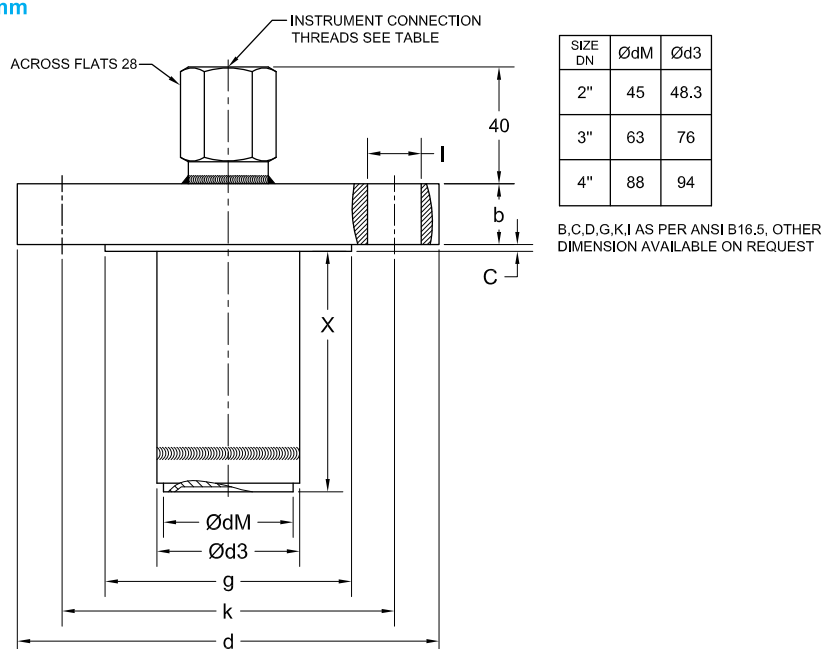


Technical specification	PDF55
Process connection size, flanged	
ANSI	2", 3", 4"
Back up flange Rating	
ANSI	150 lbs, 300 lbs, 600lbs others on request
Construction	Machined flange with welded diaphragm via extension
Fill port	In upper housing side with stainless steel ball and set screw
Measuring principle	Diaphragm welded to flange
Instrument connections [female]	G ¼, G ½ female, ¼ NPT, ½ NPT female, Others on request
Sealing surfaces	
ANSI/ASME	B16.5 RF, optional RTJ
Material (wetted parts)	
Diaphragm & contact surface	Stainless steel 316L, Optional 316L with PTFE protection, Hasteloy-C276
Material (non wetted parts)	
Instrument connection	Stainless steel 316L (1.4404)
Capillary and armor	Stainless steel 316 and stainless steel 304
Filling liquids (temperature range)	Glycerin (0/400 °F, -18/204 °C), silicone (-40/600 °F, -40/315 °C), halocarbon (-70/300 °F, -56/149 °C), Syltherm 800 (-40/750 °F, -40/400 °C), vegetable oil (32/248 °F, 0/120 °C) Food grade silicone (-13/400 °F, -25/200 °C), Others on request, also depending on selected material and configuration.
Accuracy	Additional 0.5% to the specified tolerance of the mounted instrument
Mounting	Direct / Cooling Tower / with capillary
Weight dry in kg	Depending on flange size
Accessories, options	NACE, pressure gauges, pressure switches, transducers, capillaries

All specifications are subject to change without notice.

Truncated Type Flanged Diaphragm Seal - Model PDF55

General dimensions in mm



Order information

Process Size	Type	Diaphragm	Flange & Extension material	Instrument connection	Flange Rating	Flange Facing	Extension ¹⁾	Filling fluid	Options
ANSI Flanged (20) 2" (30) 3" (40) 4"	PDF55	(S) 316L (1.4404) (SJ) 316L with Teflon Coating ²⁾ (H) Hastelloy C (E) 316L Urea application	(S) 316 (L) 316L (SJ) 316 with PTFE coating ²⁾ (H) Hastelloy C (E) 316L Urea application	(02T) 1/4" NPT(F) (04T) 1/2" NPT(F) (13T) 1/4" BSP(F) (14T) 3/8 BSP(F) (15T) 1/2" BSP(F) others on request	ANSI (150) 150 lbs (300) 300 lbs (600) 600 lbs	(RF) Raised face (FF) Flat face (RTJ) Ring joint type	(50) 50 mm (100) 100 mm (150) 150 mm (200) 200 mm (40.5) 40.5 mm (XX) custom-sized dimension	(CG) Glycerin (direct mounted, -18/204 °C) (CK) Silicone (direct mounted or with capillary, -40/315 °C) (CF) Halocarbon (direct mounted or with capillary, -56/149 °C) (HA) Syltherm 800 (direct mounted or with capillary, -40/400 °C) (GZ) Vegetable oil (direct mounted or with capillary, 0/120 °C) (CZ) Food grade silicone (direct mounted or with capillary, -25/200 °C) others on request	(NH) Tagging wired (OF) Oil free (only filled with halocarbon) (CA) Stainless steel armored capillary ³⁾ (CP) Stainless steel armored capillary with PVC sleeving ³⁾ (IB007) design as per TB.5002-25 (MHP) Mounted on HP (MLP) Mounted on LP 3) Max length 30m, specify length in meter EG. CP1.0 = CP with 1m

1) Other dimension on request

2) Restricted to temperature 200 °C

How to order

Process Size	Type	Diaphragm	Flange & Extension material	Instrument connection	Flange rating	Flange facing	Extension	Filling fluid	Options
20	PDF55	S	S	14T	150	RF	100	CK	CA1.0

All specifications are subject to change without notice.

Process Connection Flange - Model PFLG

According ANSI/ASME or DIN

Features

- Materials according NACE MR 0175/ NACE MR 0103
- Selection of materials and design
- DIN and ANSI/ASME process connections

Ratings

DIN up to PN100

ANSI/ASME up to 1500 lbs

Applications

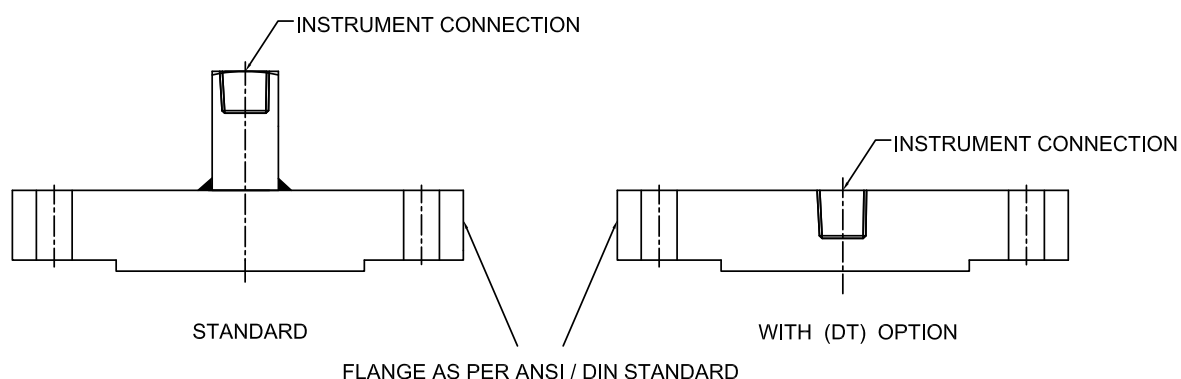
Mounted below pressure measuring instruments

Chemical and petrochemical industry

Machine and apparatus construction

Food and beverage industry

Pulp and paper industry



Order information

Process connection	Model	Material	Instrument connection	Pressure rating	Flange facing	Options
ANSI Flanged	PFLG	(B) Carbon steel	(02T) 1/4" NPT(F)	ANSI Flange	ANSI Flange	(NH) Tagging stamped
(50) 1/2"		(C) 304 (1.4301)	(04T) 1/2" NPT(F)	150	(RF) Raised face	(DT) Direct thread for instrument connection ¹⁾
(75) 3/4"		(CL) 304L (1.4306)	(13T) 1/4" BSP(F)	300	(FF) Flat face	(CD3) 3.1 Material certi.
(10) 1"		(S) 316 (1.4401)	(14T) 3/8" BSP(F)	600	(RTJ) Ring joint type	(CD5) NACE MR01-75 / NACE MR0103
(15) 1 1/2"		(SL) 316L (1.4404)	(15T) 1/2" BSP(F)	900		(CDPMI) Positive material certificate
(20) 2"		(SH) 321 (1.4541)		1500		(CDIBR) IBR Certificate
(30) 3"		(M) Monel				
		(H) Hastelloy C				
		(DU) Duplex				
		(IN) Inconel	others on request			

1) Provided with limited depth of thread

How to order

Process connection	Model	Material	Instrument connection	Pressure rating	Flange facing	Options
10	PFLG	SL	04T	150	RF	NH

All specifications are subject to change without notice.

Notes

Other Products



2-3-5 VALVE MANIFOLDS



BELLOWS SEAL VALVES



GAUGE ROOT VALVES



NEEDLE VALVES



HP NEEDLE VALVES



BALL VALVES



HP BALL VALVES



DOUBLE BLOCK & BLEED VALVES



MONO FLANGE VALVES



CHECK VALVES



RELIEF VALVES



FILTERS



TUBE FITTINGS



PIPE FITTINGS



HP PIPE FITTINGS



SWIVEL FITTINGS



JIC FITTINGS



WELD FITTINGS



HIGH PRESSURE FITTINGS



GAUGE SAVERS



PRESSURE GAUGES



TEMPERATURE GAUGES



PRESSURE TRANSMITTERS



TEMPERATURE TRANSMITTERS



PRESSURE REGULATORS



CONDENSATE POTS



AIR HEADERS



GRAB SAMPLING SYSTEM



PRE-FABRICATED HOOK UPS



FLANGE ADAPTERS



SWIVEL GAUGE ADAPTERS



THERMOWELLS



BLEED PLUGS



DIE-ELECTRIC FITTINGS



TUBING



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