

PRESSURE GAUGE



EVOL
INSTRUMENT

EVOL PRESSURE GAUGE



High Accuracy, More Choices, Long-Lasting Life

EVOL Technologies designed the pressure gauge features with 316L SS wetted parts. Without affecting the accuracy of pressure gauge, the stainless steel construction provides great resistance to corrosive media and environments. Thus, these pressure gauges are ideal for most of the industries such as oil and gas industry, chemical industry and metallurgy industry.

In EVOL Technologies, there are four types of 316L SS pressure gauge available:

- (i) Normal pressure gauge
- (ii) Vibration-proof pressure gauge
- (iii) Diaphragm pressure gauge
- (iv) Capsule pressure gauge



EVPG-N100-60A-10

Features & Highlights:

- ❖ Made with 316L SS
- ❖ Accuracy: $\pm 2.0\%$
- ❖ Temperature range: -40 to 70 °C
- ❖ Pressure range: -1 to 600 bar
- ❖ Type of display glass: Plexiglas, safety double-layer glass
- ❖ Protection category: IP 65



EVPG-VP100-60A-10

Features & Highlights:

- ❖ Made with 316L SS
- ❖ Accuracy: $\pm 2.0\%$
- ❖ Temperature range: -43.3 to 62.7 °C
- ❖ Pressure range: -1 to 600 bar
- ❖ Type of display glass: Plexiglas, safety double-layer glass
- ❖ Protection category: IP 65



EVPG-D-60AT-1/15

Features & Highlights:

- ❖ Made with 316L SS
- ❖ Accuracy: $\pm 2.5\%$
- ❖ Temperature range: -43.3 to 62.7 °C
- ❖ Pressure range: 0 MPa to 400 bar
- ❖ Type of display glass: Plexiglas, safety double-layer glass
- ❖ Protection category: IP 65



EVPG-C0.20-60A1-10

Features & Highlights:

- ❖ Made with 316L SS
- ❖ Accuracy: $\pm 2.5\%$
- ❖ Suitable for relative low pressure range
- ❖ Temperature range: -25.0 to 55.0 °C
- ❖ Pressure range: -0.4 to 0 bar, 0 to 0.06 bar, 0 to 0.4 bar
- ❖ Relative humidity: $\leq 80\%$
- ❖ Type of display glass: Plexiglas, safety double-layer glass
- ❖ Protection category: IP 65

WORKING PRINCIPLES

Normal Pressure Gauge

The normal pressure is also known as Bourdon tube pressure gauge. The Bourdon tube is a flat oval shaped tube in pressure gauge. When pressure increases, the high pressure flattens the tube to pointed oval shape. This is then directly transmit the pressure to the point.

Vibration-proof Pressure Gauge

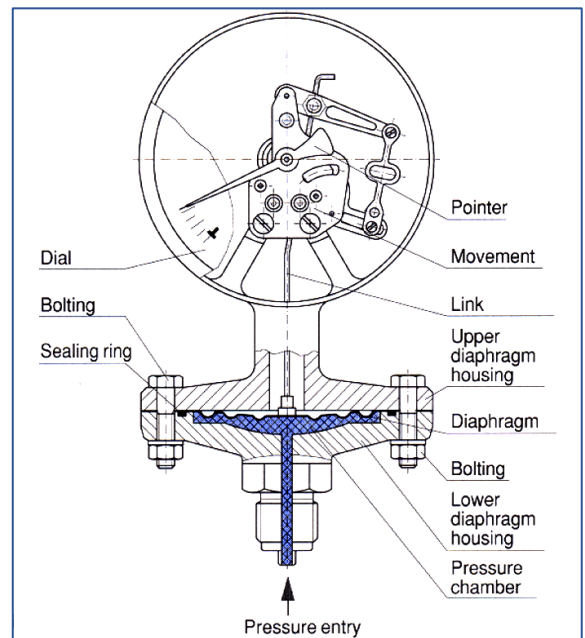
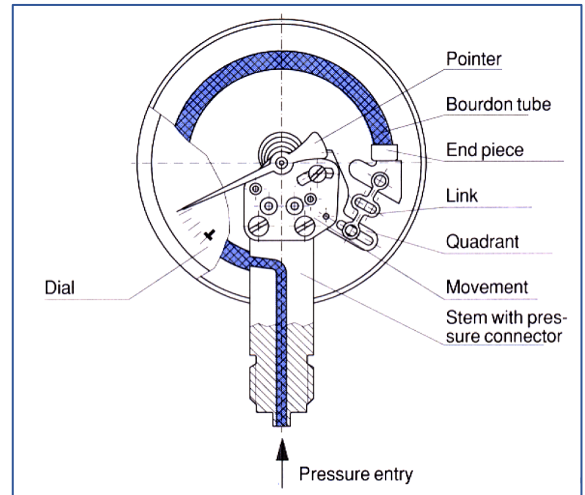
The vibration-proof pressure gauge has similar working principle to the normal one. However, vibration-proof pressure gauge is liquid-filled to eliminate the pulsation or vibration from machines. It is installed with a frontal screw that helps to neutralize the pulsation by restricting the flowrate of the pressure medium prior to enter the Bourdon tube. Therefore, it provides a stable pointer motion, which allows to read the pressure easily.

Diaphragm Pressure Gauge

The conventional pressure gauge is mounted or attached directly to a single sheet of diaphragm seal. Normally, this diaphragm seal is by means of a capillary or cooling element. It separates the pressure gauge from the process medium. As the diaphragm seal is exposed to the process medium, the materials chosen are resistant to pressure, temperature and chemicals.

- (i) Buna-N (NBR)
- (ii) Teflon graphite
- (iii) PTFE
- (iv) Fluorocarbon (FKM) [Viton]

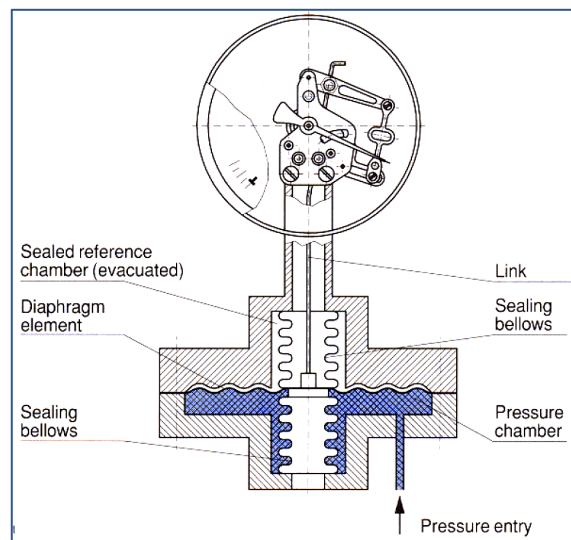
When the fluid is in contact with the flexible diaphragm, the pressure pushes the diaphragm upwards. Similar to the normal pressure gauge, the link transfers the pressure to the pointer of pressure gauge, which will then result in the movement.



Capsule Pressure Gauge

Similar to diaphragm pressure gauge, capsule pressure gauge also has a diaphragm seal while the latter one has dual sealing bellows. The sealing bellow expands and contracts axially with the changes in pressure.

When the increasing pressure is introduced into the pressure gauge, the sealing bellow contracts and transmits the pressure to the diaphragm. This will further transfer the pressure link and result in pointer movement over the graduate scale in pressure gauge.



NORMAL PRESSURE GAUGE

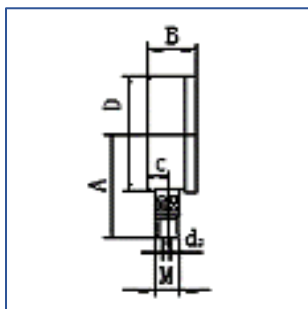
EVOL
INSTRUMENT

Specifications

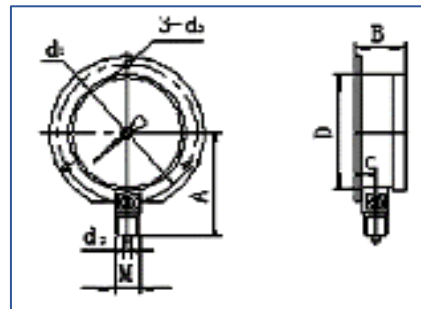
Model	EVPG-N-40	EVPG-N-50	EVPG-N-60	EVPG-N-75	EVPG-N-100	EVPG-N-150
Nominal diameter (mm)	Ø 40	Ø 50	Ø 60	Ø 75	Ø 100	Ø 150
Connection type	M10 × 1		M14 × 1.5		M20 × 1.5	
Pressure range (bar)	1. Vacuum:		2. Normal:			
	❖ -1 to 0.6,;		❖ 0 to 1.0;		❖ 0 to 25.0;	
	❖ -1 to 1.5;		❖ 0 to 1.6;		❖ 0 to 40.0;	
	❖ -1 to 3.0;		❖ 0 to 2.5;		❖ 0 to 60.0;	
	❖ -1 to 5		❖ 0 to 4.0;		❖ 0 to 100.0;	
			❖ 0 to 6.0;		❖ 0 to 160.0;	
			❖ 0 to 10.0;		❖ 0 to 250.0;	
			❖ 0 to 16.0;		❖ 0 to 400.0;	
Temperature range (°C)	-40 to 70					
Mounting	❖ Type A: Bottom connection direct mounting					
	❖ Type B: Bottom connection surface mounting					
	❖ Type C: Back connection bracket mounting					
	❖ Type D: Back connection panel mounting					

✓ Pressure range can be customized upon customer's requirement.

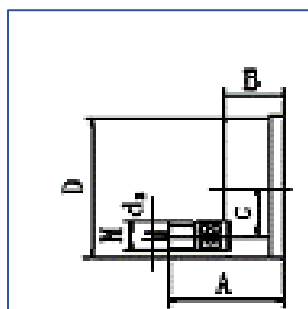
Dimensions



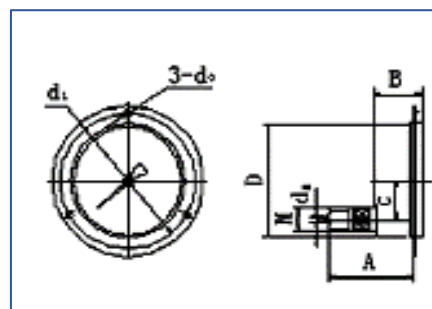
Type A: Bottom connection direct mounting



Type B: Bottom connection surface mounting



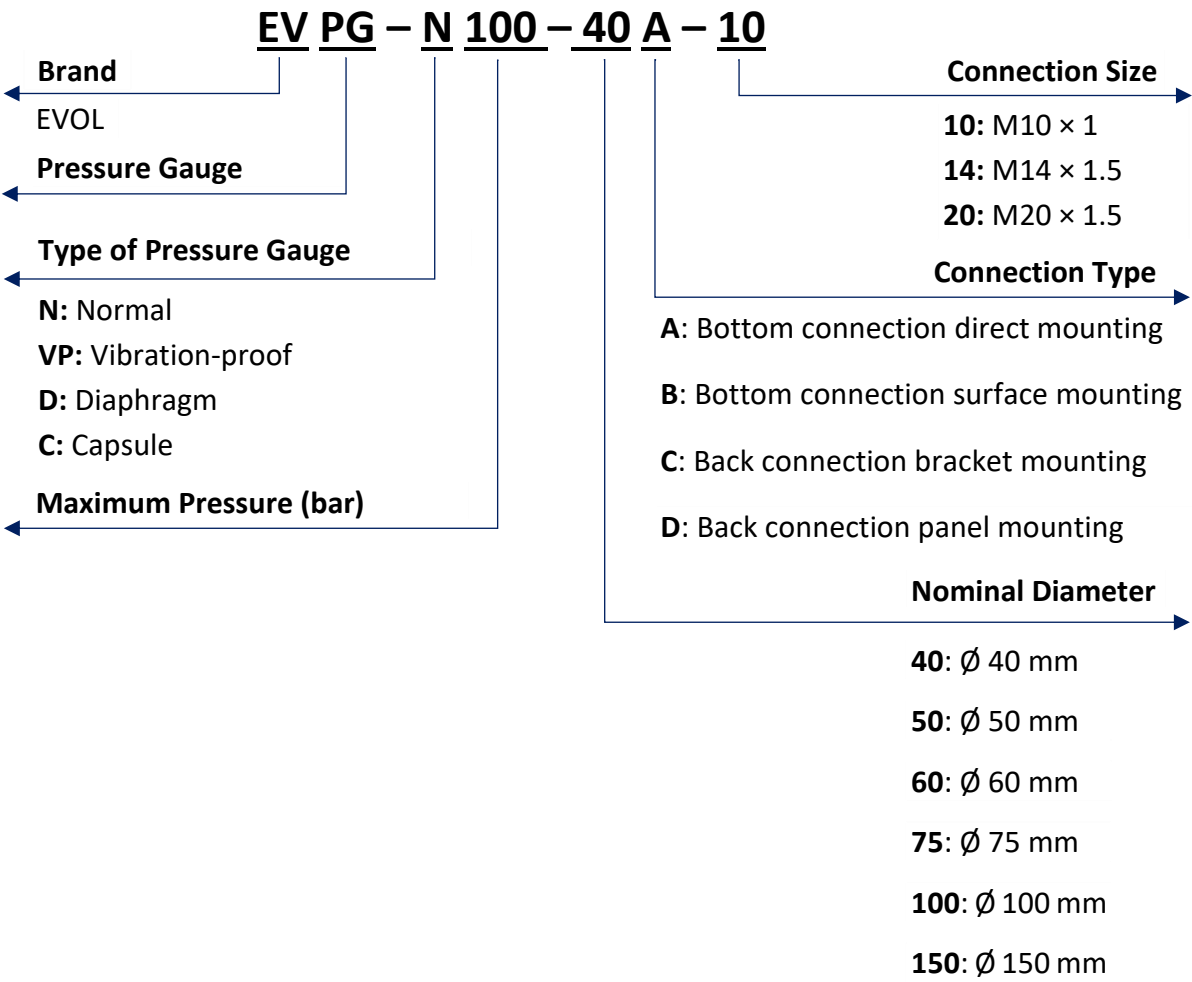
Type C: Back connection bracket mounting



Type D: Back connection panel mounting

Model	Dimensions (mm)							Thread
	A	B	C	D	d ₀	d ₁	d ₂	
EVPG-N-40A-10	38	24	8.5	40	/	/	∅ 5	M10 × 1
EVPG-N-40D-10	40	24	0	40	/	/	∅ 5	
EVPG-N-50A-10	52	29	9.5	50	/	/	∅ 5	
EVPG-N-50D-10	54	29	0	50	/	/	∅ 5	
EVPG-N-60A-14	57	32.5	14	∅ 60	/	/	∅ 5	M14 × 1.5
EVPG-N-60B-14	57	32.5	14	∅ 60	∅ 5	∅ 75	∅ 5	
EVPG-N-60C-14	57	32.5	0	∅ 60	/	/	∅ 5	
EVPG-N-60D-14	45	32.5	0	∅ 60	∅ 5	∅ 75	∅ 5	
EVPG-N-75A-14	62	31	10	75	/	/	∅ 5	
EVPG-N-75B-14	62	31	10	75	∅ 5	∅ 91	∅ 5	
EVPG-N-75C-14	56	31	0	75	/	/	∅ 5	
EVPG-N-75D-14	56	31	0	75	∅ 5	∅ 91	∅ 5	
EVPG-N-100A-20	89	44	17	∅ 100	/	/	∅ 6	M20 × 1.5
EVPG-N-100B-20	89	44	17	∅ 100	∅ 6	∅ 118	∅ 6	
EVPG-N-100C-20	83	44	34	∅ 100	/	/	∅ 6	
EVPG-N-100D-20	68	44	34	∅ 100	∅ 6	∅ 118	∅ 6	
EVPG-N-150A-20	113	53	22	∅ 150	/	/	∅ 6	
EVPG-N-150B-20	113	53	22	∅ 150	∅ 6	∅ 165	∅ 6	
EVPG-N-150C-20	90	53	55	∅ 150	/	/	∅ 6	
EVPG-N-150D-20	69	53	55	∅ 150	∅ 6	∅ 165	∅ 6	

Model Number



VIBRATION-PROOF PRESSURE GAUGE

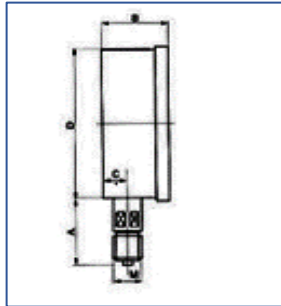


Specifications

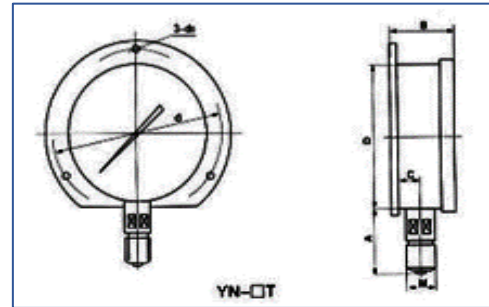
Model	EVPG-VP-50	EVPG-VP-60	EVPG-VP-100	EVPG-VP-150
Nominal diameter (mm)	Ø 50	Ø 60	Ø 100	Ø 150
Connection type		M14 × 1.5	M20 × 1.5	M20 × 1.5
Accuracy (%)	± 2.5		± 1.6	
Maximum pressure (bar)	❖ 1.6; ❖ 2.5; ❖ 4.0; ❖ 6.0; ❖ 10.0; ❖ 16.0; ❖ 25.0;	❖ 40; ❖ 60; ❖ 100; ❖ 160; ❖ 250; ❖ 400; ❖ 600	❖ -1; ❖ -1 to 0.6; ❖ -1 to 1.5; ❖ -1 to 3.0; ❖ -1 to 5.0; ❖ -1 to 9.0; ❖ 1 to 15.0; ❖ -1 to 24.0; ❖ 1.6; ❖ 2.5; ❖ 4.0;	❖ 6.0; ❖ 10.0; ❖ 16.0 ❖ 25.0; ❖ 40; ❖ 60; ❖ 100; ❖ 160; ❖ 250; ❖ 400; ❖ 600
Connection way	❖ Type A: Bottom connection direct mounting ❖ Type B: Bottom connection surface mounting ❖ Type C: Back connection bracket mounting ❖ Type D: Back connection panel mounting			

✓ Pressure range can be customized upon customer's requirement.

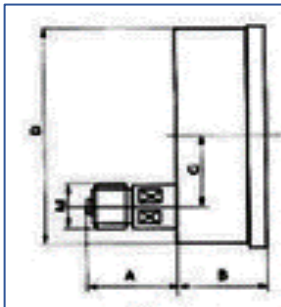
Dimensions



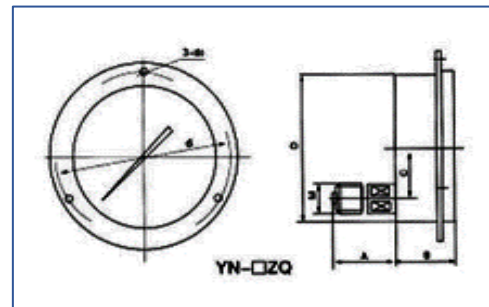
Type A: Bottom connection direct mounting



Type B: Bottom connection surface mounting



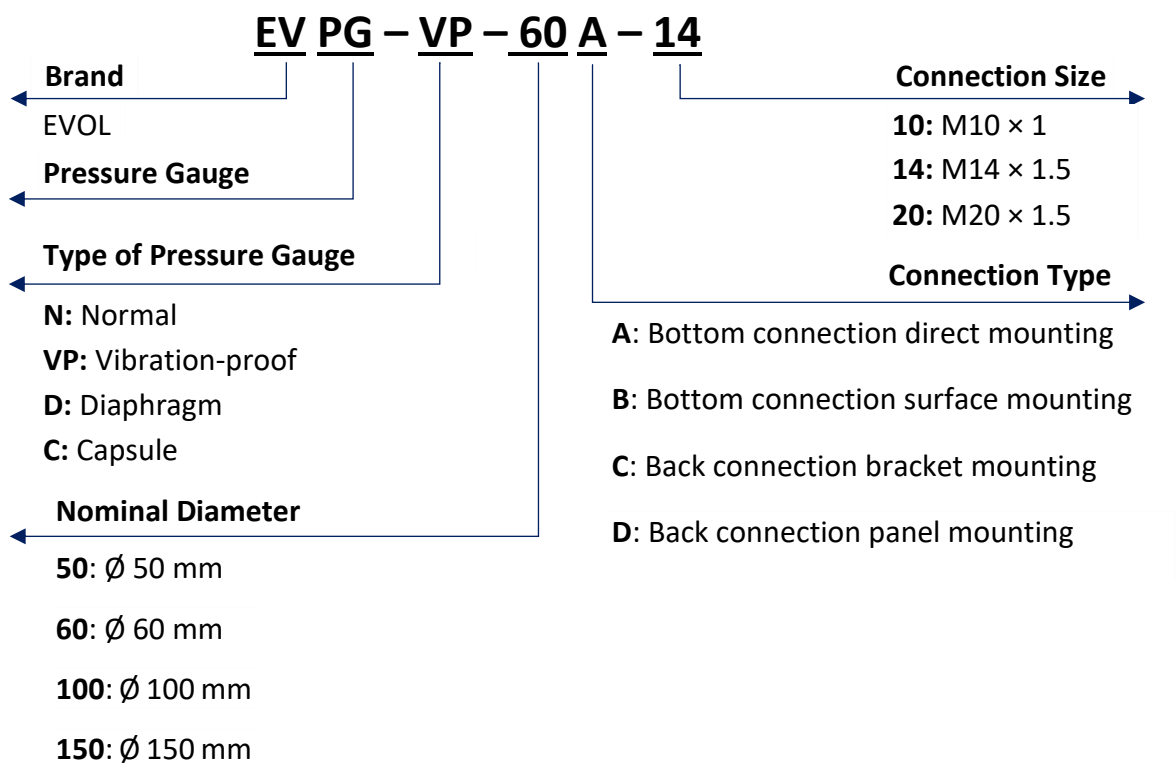
Type C: Back connection bracket mounting



Type D: Back connection panel mounting

Model	Dimensions (mm)						
	A	B	C	D	d	d ₀	Thread
EVPG-VP-50A	29	24	0	50	/	/	
EVPG-VP-60A-14	31	32	14	60	/	/	M14 × 1.5
EVPG-VP-60B-14	31	32	15		75	3.4	
EVPG-VP-60C-14	30	32	0		/	/	
EVPG-VP-60D-14	30	32	0		75	3.4	
EVPG-VP-100A-20	44	45	18	100	/	/	M20 × 1.5
EVPG-VP-100B-20	44	46	19		118	5.5	
EVPG-VP-100C-20	43	45	34		/	/	
EVPG-VP-100D-20	43	45	44		118	5.5	
EVPG-VP-150A-20	50	47	19	150	/	/	M20 × 1.5
EVPG-VP-150B-20	50	48	20		165	5.5	
EVPG-VP-150C-20	51	47	55		/	/	
EVPG-VP-150D-20	51	47	55		165	5.5	

Model Number



DIAPHRAGM PRESSURE GAUGE



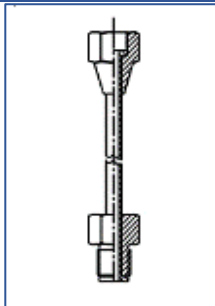
Specifications

Model	EVPG- D60	EVPG- D75	EVPG-D100	EVPG-D150
Nominal diameter (mm)	Ø 60	Ø 75	Ø 100	Ø 150
Connection type	M20 × 1.5			
Pressure Range (MPa)	❖ 0.1 to 0.4 ❖ 0.1 to 0.6 ❖ 0.6 to 10.0 ❖ 1.0 to 2.5 ❖ 1.0 to 4.0 ❖ 16.0 to 40.0			
Temperature range (°C)	-40 to 70			
Connector	❖ Type A: Hard tube ❖ Type B: Stainless steel (SS) soft tube ❖ Type C: Dampener ❖ Type D: 90° angle			
Connection type	❖ Type T: Threaded ❖ Type RF: Raised face flange ❖ Type I: I-flange ❖ Type B: Bolt ❖ Type N: Nut ❖ Type PI: Plastic I-flange			

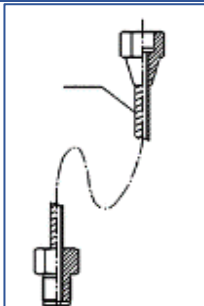
✓ Pressure range can be customized upon customer's requirement.

Connector and Connection Type

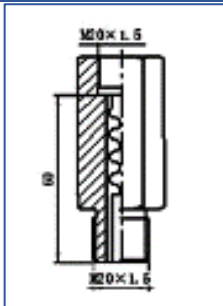
Connector



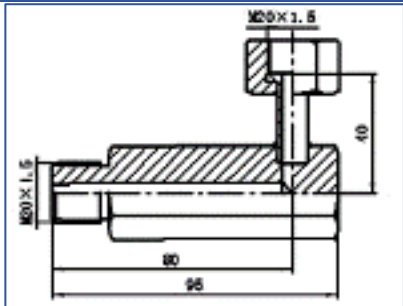
Type A: Hard tube



Type B: SS soft tube

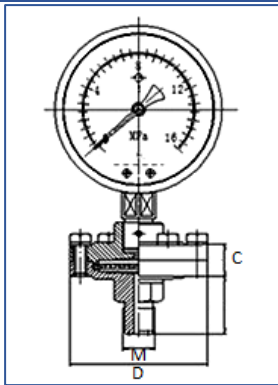


Type C: Dampener

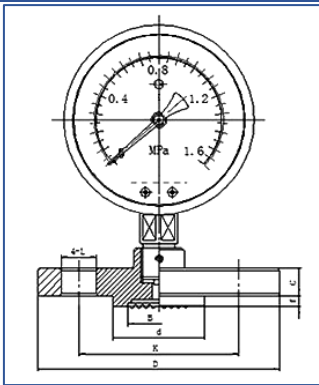


Type D: 90° angle

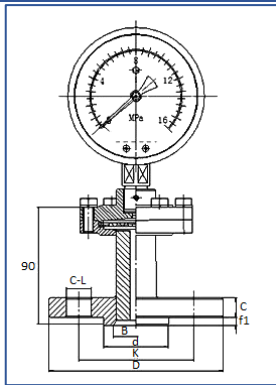
Connection type



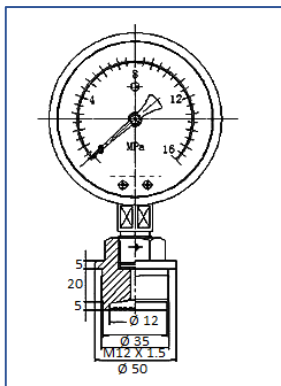
Type T: Threaded



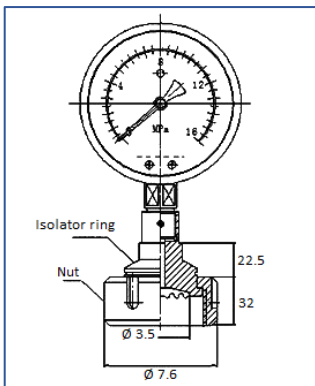
Type RF: Raised face flange



Type I: I-flange



Type B: Bolt



Type N: Nut

Dimensions: Type T Connection

Model	Pressure Range (MPa)	Dimensions (mm)		Thread
		D	C	
EVPG-D-AT-1	0.1 to 0.4	118	25	M20 × 1.5
EVPG-D-AT-3	0.6 to 10	92	25	
EVPG-D-AT-5	16 to 40	67	27	

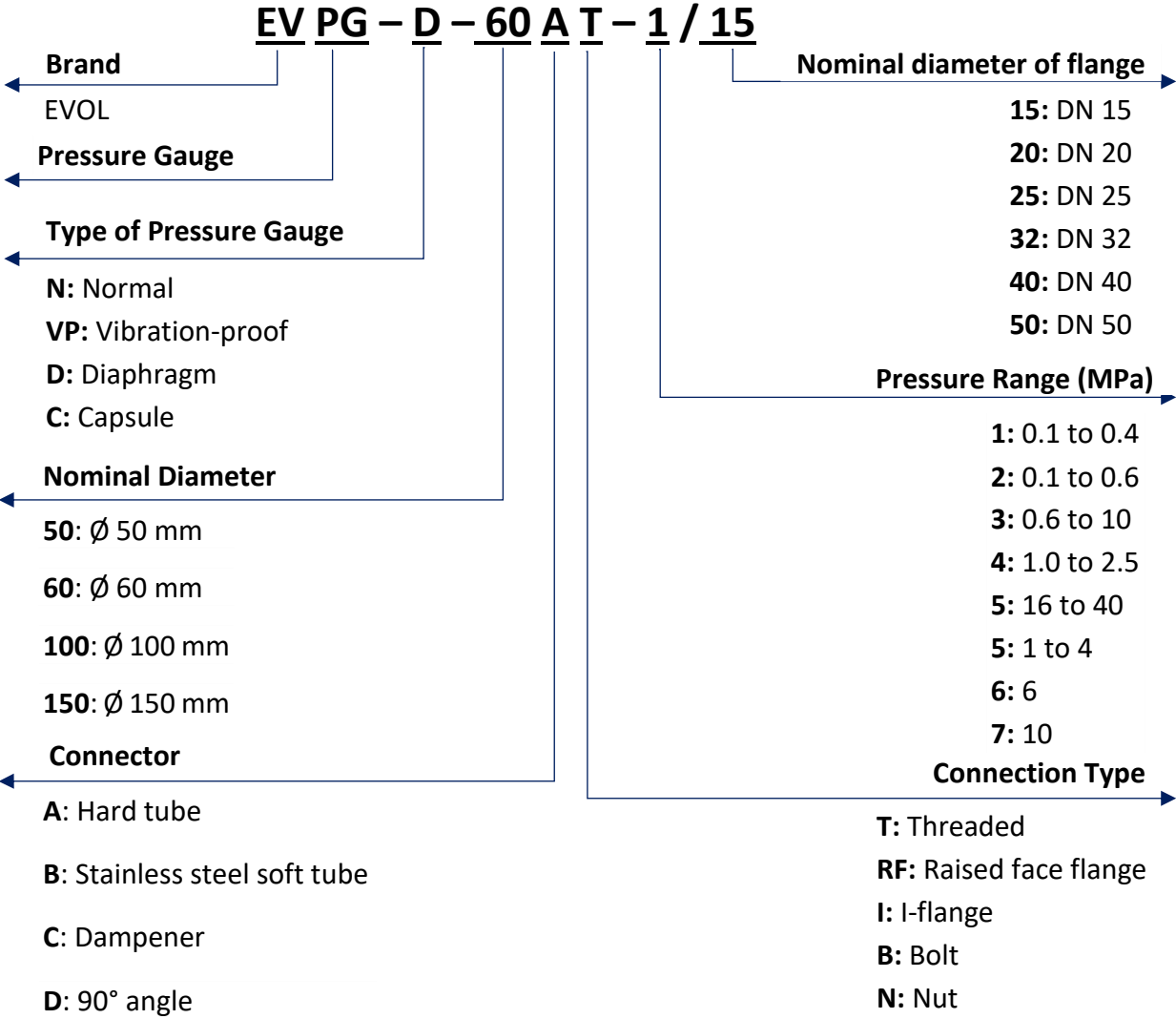
Dimensions: Type RF Connection

Model	Pressure Range (MPa)	Nominal Diameter of Flange	Dimensions (mm)							No. of bolts
			D	K	d	B	C	f ₁	L	
EVPG-D-ARF-2/15	0.1 to 0.6	DN 15	80	55	38	22	12	2	11	4
EVPG-D-ARF-2/25		DN 25	100	75	58	34.5	14	2	11	4
EVPG-D-ARF-2/32		DN 32	140	100	78	31	16	2	18	4
EVPG-D-ARF-2/40		DN 40	150	110	88	38	16	3	18	4
EVPG-D-ARF-2/50		DN 50	165	125	102	49	18	3	18	4
EVPG-D-ARF-5/15	1.0 to 4.0	DN 15	95	65	46	22	14	2	14	4
EVPG-D-ARF-5/25		DN 25	115	85	65	34.5	16	2	14	4
EVPG-D-ARF-5/32		DN 32	140	100	78	31	18	2	18	4
EVPG-D-ARF-5/40		DN 40	150	110	88	38	18	3	18	4
EVPG-D-ARF-5/50		DN 50	165	125	102	49	20	3	18	4
EVPG-D-ARF-6/15	6	DN 15	105	75	/	/	/	/	14	4
EVPG-D-ARF-6/25		DN 25	140	100	/	/	/	/	18	4
EVPG-D-ARF-6/32		DN 32	155	110	78	31	24	2	22	4
EVPG-D-ARF-6/40		DN 40	170	125	88	37	24	3	22	4
EVPG-D-ARF-6/50		DN 50	180	135	102	47	26	3	22	4
EVPG-D-ARF-7/15	10	DN 15	105	75	/	/	/	/	14	4
EVPG-D-ARF-7/25		DN 25	140	100	/	/	/	/	18	4
EVPG-D-ARF-7/32		DN 32	155	110	78	31	24	2	22	4
EVPG-D-ARF-7/40		DN 40	170	125	88	37	26	3	22	4
EVPG-D-ARF-7/50		DN 50	195	145	102	45	28	3	26	4

Dimensions: Type I Connection

Model	Pressure Range (MPa)	Nominal Diameter of Flange	Dimensions (mm)							No. of bolts
			D	K	d	B	C	f ₁	L	
EVPG-D-AI-2/15	0.1 to 0.6	DN 15	80	55	38	22	12	2	11	4
EVPG-D-AI-2/20		DN 20	105	75	58	18	16	2	14	4
EVPG-D-AI-2/25		DN 25	115	85	68	25	16	2	14	4
EVPG-D-AI-5/15	1.0 to 4.0	DN 15	95	65	46	22	14	2	14	4
EVPG-D-AI-5/20		DN 20	105	75	58	18	16	2	14	4
EVPG-D-AI-5/25		DN 25	115	85	68	25	16	2	14	4

Model Number



CAPSULE PRESSURE GAUGE



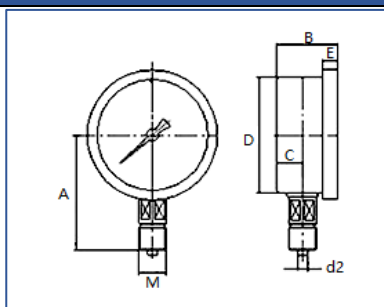
Specifications

Model	EVPG-C60	EVPG-C100	EVPG-C150
Nominal diameter (mm)	Ø 60	Ø 100	Ø 150
Connection type	M14 × 1.5	M20 × 1.5	
Pressure range (bar)	❖ -0.40 to 0;	❖ 0 to 0.16;	
	❖ -0.25 to 0;	❖ 0 to 0.25;	
	❖ -0.16 to 0;	❖ 0 to 0.40;	
	❖ -0.06 to 0;	❖ -0.02 to 0.02;	
	❖ -0.04 to 0;	❖ -0.03 to 0.03;	
	❖ 0 to 0.04;	❖ -0.05 to 0.05;	
	❖ 0 to 0.06;	❖ -0.08 to 0.08;	
	❖ 0 to 0.10;	❖ -0.12 to 0.12;	
		❖ -0.20 to 0.20	
Temperature range (°C)	-25 to 55		
Connection way	1. Without flange panel		
	❖ Type A: Bottom connection direct mounting		
	❖ Type B: Centre back mounting		
	2. With flange panel		
	❖ Type C: Bottom connection direct mounting		
	❖ Type D: Bottom connection surface mounting		
	❖ Type E: Back connection bracket mounting		
	❖ Type F: Back connection panel mounting		

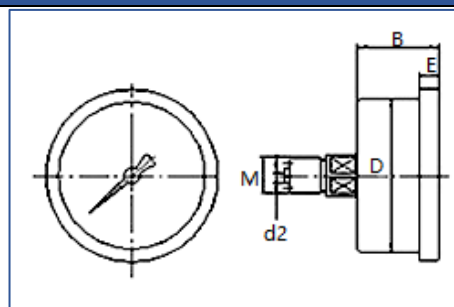
✓ Pressure range can be customized upon customer's requirement.

Dimensions

1. Without flange panel

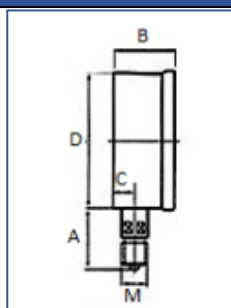


Type A: Bottom connection direct mounting

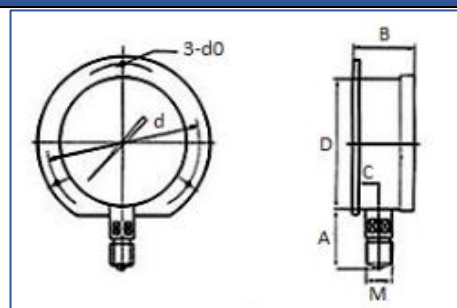


Type B: Centre back connection mounting

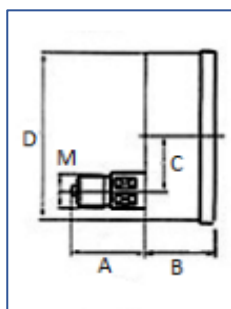
2. With flange panel



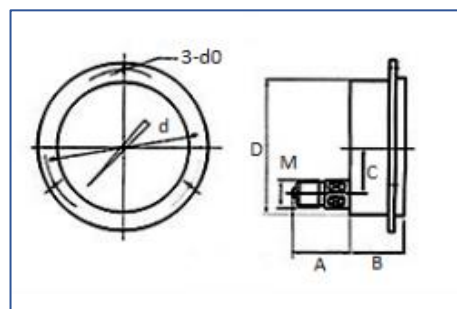
Type A: Bottom connection direct mounting



Type C: Bottom connection surface mounting



Type D: Back connection bracket mounting



Type E: Back connection panel mounting

Model	Dimensions (mm)								
	A	B	C	D	E	d	d ₀	d ₂	Thread
EVPG-C-60B1-10	58	35	/	∅ 60	5	/	/	∅ 4	M10 × 1
EVPG-C-100A1-20	94	50	16.5	∅ 98	10	/	/	∅ 6	M20 × 1.5
EVPG-C-100B1-20	85	50	/	∅ 98	10	/	/	∅ 6	
EVPG-C-150A1-20	124	50	20.5	∅ 150	17	/	/	∅ 6	
EVPG-C-60A2-10	31	32	14	∅ 60	/	/	/	/	M10 × 1
EVPG-C-60C2-10	31	32	15		/	3.4	/	/	
EVPG-C-60D2-10	30	32	0		/	/	/	/	
EVPG-C-60E2-10	30	32	0		/	3.4	/	/	
EVPG-C-100A2-20	44	45	18	∅ 100	/	/	/	/	M20 × 1.5
EVPG-C-100C2-20	44	46	19		/	5.5	/	/	

EVPG-C-100D2-20	43	45	34		/	/	/	/	
EVPG-C-100E2-20	43	45	44		/	5.5	/	/	
EVPG-C-150A2-20	50	47	19	Ø 150	/	/	/	/	
EVPG-C-150C2-20	50	48	20		/	5.5	/	/	
EVPG-C-150D2-20	51	47	55		/	/	/	/	
EVPG-C-150E2-20	51	47	55		/	/	/	/	

Model Number

EV PG – C 0.2 – 60 A 1 – 14

Brand		Connection Size
EVOL		10: M10 × 1
Pressure Gauge		14: M14 × 1.5
		20: M20 × 1.5
Type of Pressure Gauge		Connection mounted with
N: Normal		1: Without flange panel
VP: Vibration-proof		2: With flange panel
D: Diaphragm		Connection Type
C: Capsule		A: Bottom connection direct mounting
Maximum Pressure (bar)		B: Centre back connection mounting
		C: Bottom connection surface mounting
Nominal Diameter		D: Back connection bracket mounting
60: Ø 60 mm		E: Back connection panel mounting
100: Ø 100 mm		
150: Ø 150 mm		



EVOLTechnologies

www.evol-technologies.com

Lot 2075, Jalan Disa Krokop, 98000 Miri, Sarawak

+6085 416320 / 433101

enquiry@evol-technologies.com