

Diaphragm pressure gauge with seal type

Model: P761 (Pressure gauge with inline type diaphragm seal)

P762 (Pressure gauge with extension type diaphragm seal)

P763 (Pressure gauge with pad type diaphragm seal)

Spec. sheet no. PD07-08

Service intended

Diaphragm seal type gauges are suitable for the situation where the process medium would corrode the instrument connection and pressure sensing element. Furthermore, this type of gauge is suitable for corrosive, highly viscous, crystallising or hot pressure media. Additionally, it is recommended to be used where the process medium might freeze or solidify the instrument connection and pressure sensing element due to the ambient or process temperature change and where the process medium requires the flusing from the system to prevent any contamination.

Design

Internal diaphragm

Accuracy

Refer to gauge model

Suitable pressure range (MPa, kPa, bar)

-0.1 ~ 0 to -0.1 ~ 2.5 MPa

0 ~ 0.1 to 0 ~ 35 MPa

Filling liquid

Silicone oil

Working temperature

Temperature rating of the diaphragm seals depends on the fill fluid, the diaphragm material and the lower housing material. Standard fill fluids are available for temperature range -20 ~ 200 °C

Diaphragm material

Diaphragms are available in many corrosion resistant materials. Compatibility of selected material and process fluid is the responsibility of user

Temperature effect

Accuracy at temperature above and below the reference temperature (20 °C) will be effected by approximately $\pm 0.5\%$ per 10 °C of full scale



Model : P761



Model : P762



Model : P763

Standard features

Upper flange (Gauge side)

Stainless steel (304SS, 316SS)

Diaphragm

316L SS, Monel, Hastelloy-C
Titanium, Tantalum, Nickel, Alloy20

Under flange and process flange

Stainless steel (304SS, 304L SS, 316SS, 316L SS)
Monel, Hastelloy-C, Titanium, Nickel

Optaional

Diaphragm and under flange are available in PTFE coating
Under flange (Process side) are available in purging plug or heating/cooling jacket

1. Base model**P761** Pressure gauge with inline type diaphragm seal**2. Gauge mounting type**

- D** Direct
- R** Remote with capillary tube
- P** Remote with PVC jacketed capillary tube

3. Gauge model

- 8A** P252 100A
- 8B** P252 100B
- 8P** P258 100A (Glycerin filling)
- 8Q** P258 100B (Glycerin filling)
- 8V** P258 100A (Silicone filling)
- 8W** P258 100B (Silicone filling)

4. Upper flange / Diaphragm material

- B** 304SS / 316SS
- E** 316L SS / 316L SS
- J** 316SS / 316L SS
- K** 316L SS / Monel
- L** 316SS / Hastelloy-C
- M** 316L SS / Monel
- N** 316SS / Tantalum
- R** Titanium / Titanium
- S** 316L SS / Tantalum
- X** 316L SS / Hastelloy-C

5. Process connection**XXX** Refer to process connection type table**6. Process flange and pipe material**

- A** 304SS
- B** 304L SS
- C** 316SS
- D** 316L SS
- E** 316L SS with PTFE coating
- F** 304SS with PTFE coating
- G** 316SS with PTFE coating

7. Unit

- H** bar
- I** MPa
- J** kPa

8. Range table**XXX** Refer to pressure range table**9. Option**

- 0** None (Direct mounting)
- 1** Capillary length 2 meter
- 2** Capillary length 3 meter
- 3** Capillary length 10 meter

1	2	3	4	5	6	7	8	9
P761	D	8B	B	XXX	A	I	XXX	1

Sample
ordering code

1. Base model**P762** Pressure gauge extension diaphragm seal**2. Gauge mounting type**

- D** Direct
- R** Remote with capillary tube
- P** Remote with PVC jacketed capillary tube

3. Gauge model

- 8A** P252 100A
- 8B** P252 100B
- 8P** P258 100A (Glycerin filling)
- 8Q** P258 100B (Glycerin filling)
- 8V** P258 100A (Silicone filling)
- 8W** P258 100B (Silicone filling)

4. Flange / Diaphragm material

- B** 304SS / 316SS
- E** 316L SS / 316L SS
- J** 316SS / 316L SS
- K** 316L SS / Monel
- L** 316SS / Hastelloy-C
- M** 316L SS / Monel
- N** 316SS / Tantalum
- R** Titanium / Titanium
- S** 316L SS / Tantalum
- X** 316L SS / Hastelloy-C

5. Process connection**XXX** Refer to process connection type table**6. Diaphragm extension length (mm)**

- 02** Flat
- 03** 50
- 04** 100
- 05** 150
- 06** 200
- 07** 250
- 08** 300
- ZZ** Other

7. Unit

- H** bar
- I** MPa
- J** kPa
- S** mbar

8. Range table**XXX** Refer to pressure range table**9. Option**

- 0** None (Direct mounting)
- 1** Capillary length 2 meter
- 2** Capillary length 3 meter
- 3** Capillary length 10 meter

1	2	3	4	5	6	7	8	9
P762	D	8B	B	XXX	03	H	XXX	0

Sample
ordering code

1. Base model**P763** Pressure gauge with pad type diaphragm seal**2. Gauge mounting type**

- D** Direct
R Remote with capillary tube
P Remote with PVC jacketed capillary tube

3. Gauge model

- 8A** P252 100A
8B P252 100B
8P P258 100A (Glycerin filling)
8Q P258 100B (Glycerin filling)
8V P258 100A (Silicone filling)
8W P258 100B (Silicone filling)

4. Upper flange / Diaphragm material

- B** 304SS / 316SS
E 316L SS / 316L SS
J 316SS / 316L SS
K 316L SS / Monel
L 316SS / Hastelloy-C
M 316L SS / Monel
N 316SS / Tantalum
R Titanium / Titanium
S 316L SS / Tantalum
X 316L SS / Hastelloy-C

5. Retainer flange and pipe size (inch)

- 02** 2
03 3
04 4
05 5
06 6
07 8
08 10
ZZ Other

6. Process flange and pipe material

- BX** 304SS
DX 304L SS
CX 316SS
EX 316L SS
LX Monel
KX Hastelloy-C
MX Titanium
51 316L SS with PTFE coating
RX 304SS with PTFE coating
SX 316SS with PTFE coating

7. Unit

- H** bar
I MPa
J kPa
S mbar

8. Range table**XXX** Refer to pressure range table**9. Option**

- 0** None (Direct mounting)
1 Capillary length 2 meter
2 Capillary length 3 meter
3 Capillary length 10 meter

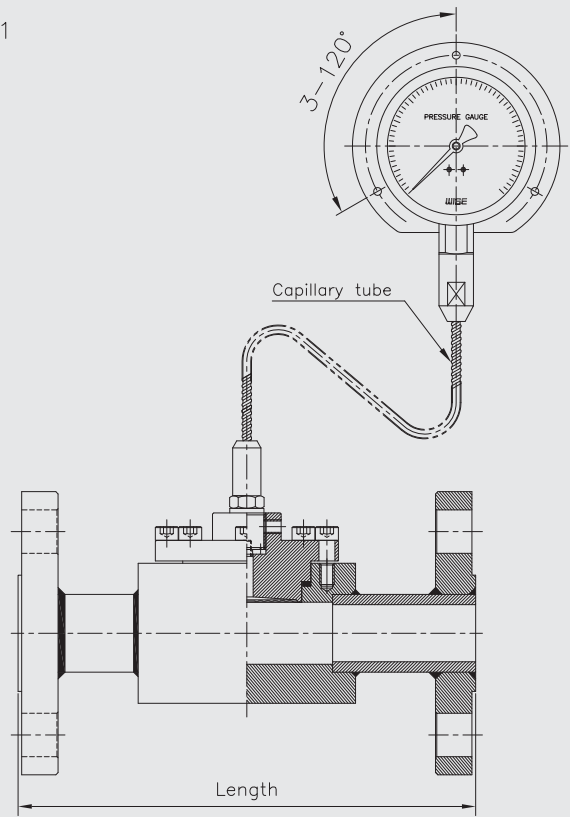
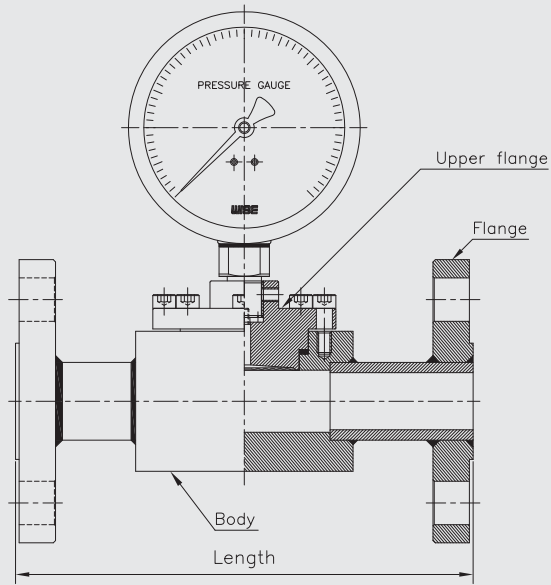
1	2	3	4	5	6	7	8	9
P763	D	8B	B	03	BX	H	XXX	0

Sample
ordering code

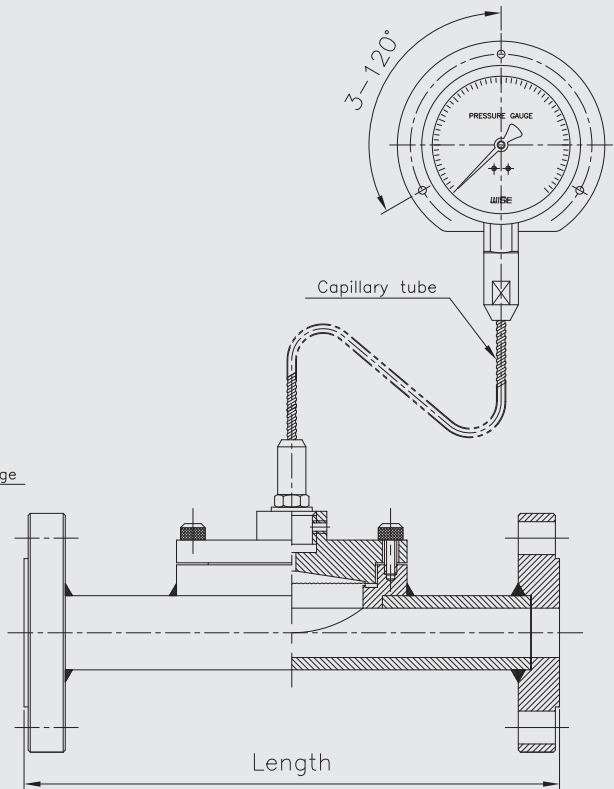
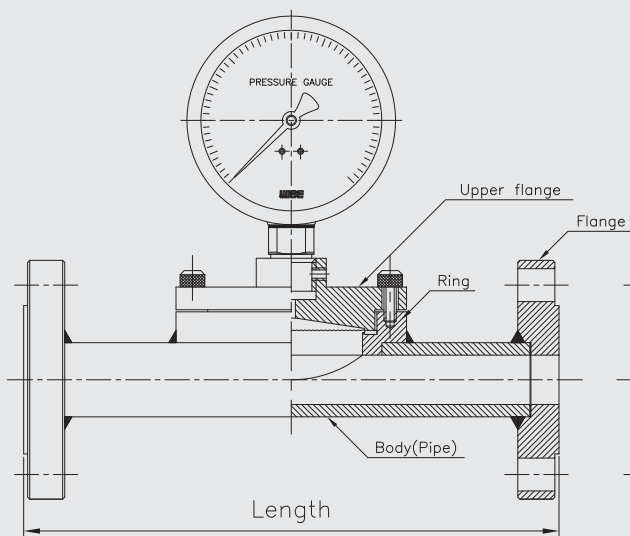
P761 : Type of mounting (1/2)

Code P761

Pipe size : $\leq 2''$

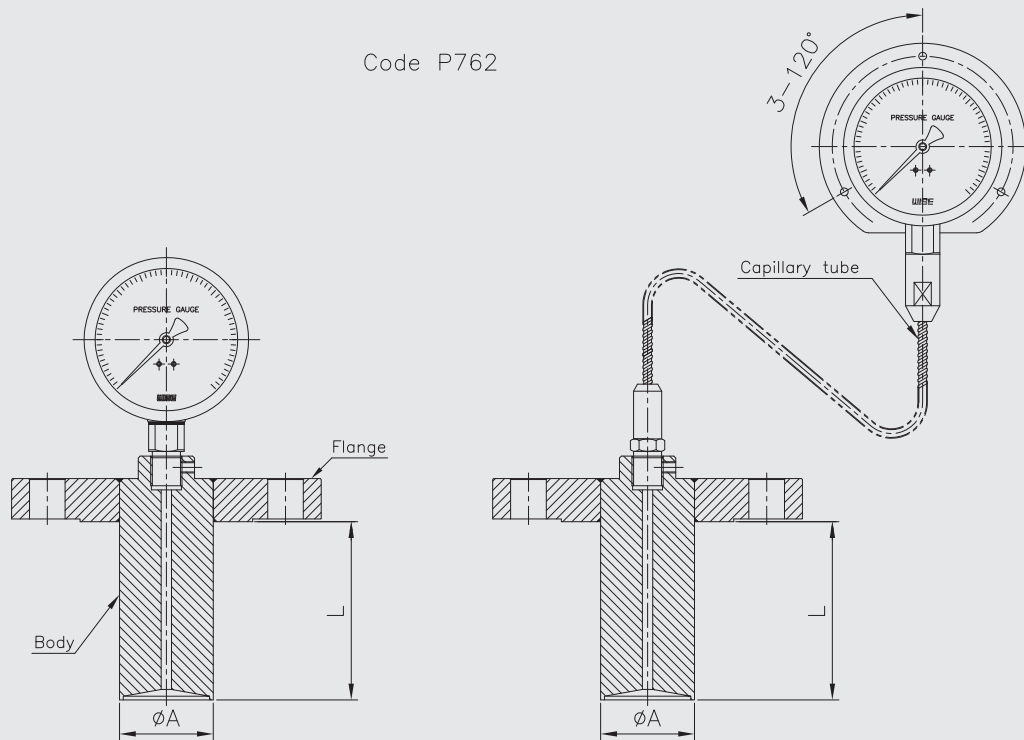


Pipe size : $> 2''$

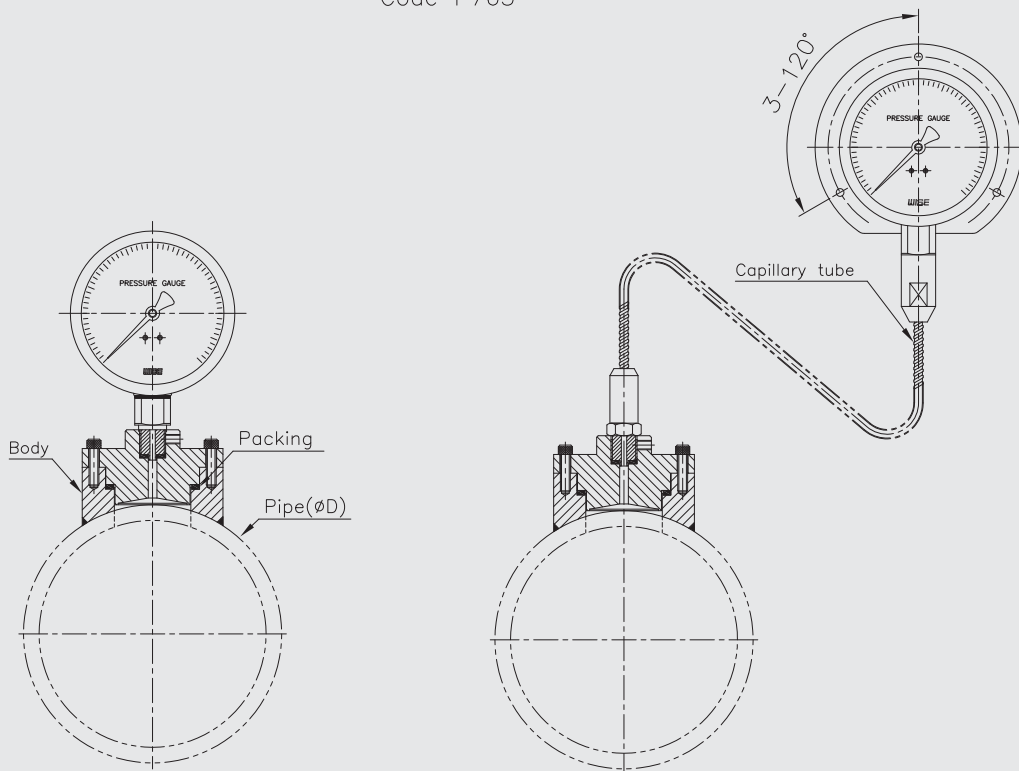


P762, P763 : Type of mounting (2/2)

Code P762



Code P763



Pressure unit and range table (For P761 model)

Code	8 th character	Code	9 th , 10 th character
	Connection size		Flange rating
D *	3/8" (10A)	KA	JIS 5K RF
E	1/2" (15A)	AC	ANSI 150 Lb RF
F	3/4" (20A)	AE	ANSI 150 Lb FF
G	1" (25A)	AD	ANSI 150 Lb RFSF
H	1 1/4" (32A)	AF	ANSI 300 Lb RF
J	1 1/2" (40A)	AH	ANSI 300 Lb FF
K	2" (50A)	AG	ANSI 300 Lb RFSF
L	2 1/2" (65A)	AJ	ANSI 600 Lb RF
M	3" (80A)	KT	JIS 5K FF
N	4" (100A)	AL	ANSI 600 Lb FF
Z	Other	AK	ANSI 600 Lb RFSF
		KL	JIS 10K RF
		KN	JIS 10K FF
		KM	JIS 10K RFSF
		KP	JIS 20K RF
		KR	JIS 20K FF
		KQ	JIS 20K RFSF
		KC	JIS 30K RF
		KU	JIS 30K FF
		KJ	JIS 30K RFSF
		AS	ANSI 900 Lb RF
		KD	JIS 40K RF
		KV	JIS 40K FF
		A8	ANSI 150 Lb RTJ
		A9	ANSI 300 Lb RTJ
		AV	ANSI 600 Lb RTJ
		AT	ANSI 1,500 Lb RF
		AN	ANSI 1,500 Lb FF
		AB	ANSI 1,500 Lb RFSF
		AX	ANSI 1,500 Lb RTJ
		AY	ANSI 2,500 Lb RTJ
		ZZ	Other

Pressure unit and range table (For P762 model)

Code	8 th character	9 th , 10 th character	
	Connection size	Code	Flange rating
G	1" (25A)	AC	ANSI 150 Lb RF
H	1¼" (32A)	AE	ANSI 150 Lb FF
J	1½" (40A)	AD	ANSI 150 Lb RFSF
K	2" (50A)	AF	ANSI 300 Lb RF
L	2½" (65A)	AH	ANSI 300 Lb FF
M	3" (80A)	AG	ANSI 300 Lb RFSF
N	4" (100A)	AJ	ANSI 600 Lb RF
Z	Other	AL	ANSI 600 Lb FF
		AK	ANSI 600 Lb RFSF
		KL	JIS 10K RF
		KN	JIS 10K FF
		KM	JIS 10K RFSF
		KP	JIS 20K RF
		KR	JIS 20K FF
		KQ	JIS 20K RFSF
		KC	JIS 30K RF
		KU	JIS 30K FF
		KJ	JIS 30K RFSF
		AS	ANSI 900 Lb RF
		KD	JIS 40K RF
		KV	JIS 40K FF
		A8	ANSI 150 Lb RTJ
		A9	ANSI 300 Lb RTJ
		AV	ANSI 600 Lb RTJ
		AT	ANSI 1,500 Lb RF
		AN	ANSI 1,500 Lb FF
		AB	ANSI 1,500 Lb RFSF
		AX	ANSI 1,500 Lb RTJ
		AY	ANSI 2,500 Lb RTJ
		ZZ	Other