



Diaphragm-seal Pressure Gauges for High Temperature

OUTLINE

This is a pressure gauge in which charged liquid is applied between the pressure sensing portion and the Bourdon tube, or an element, as pressure transmitting media. This pressure gauge is used to measure the pressure of material which is melted under high temperature and the pressure of liquid which has high viscosity under room temperature, and is extensively applied to synthetic chemical industry, fiber industry, plastic chemical industry, etc.

FEATURES

- This pressure gauge can measure pressure under an extensive temperature range of 0°C to 330°C. This pressure gauge demonstrates little indicating fluctuation due to temperature change and no indicating compensation is required.
- As this pressure gauge is of seal type and measuring liquid does not directly enter into the element (or Bourdon tube), the pressure of measuring liquid with high viscosity can be measured.
- Because of little specific gravity of charged liquid, the indication error (elevation error) due to the height difference between the pressure sensing portion and the indicating portion does not require compensation.

* In case of selecting pressure gauge, choose the pressure range which can be used in between 30~65% of full scale, so that the gauge can give its full capacity.

SPECIFICATION

Fluid:

Gas or liquid

Type:

Direct type, remote type

Filled liquid:

X3·····The charged fluid is an oil stable in quality and harmless. (NKS instrument oil) This liquid is appropriate for the case where mercury is not applicable.

Construction:

Seal type

This product is seal construction look of drop-proof II (JISC0920). It isn't complete seal construction.

Size:

100 DIA.

Mounting:

Type B (Mounting hole)

Diaphragm:

18 DIA., 23.6 DIA.

Connection:

G3/4B(PF), G1B(PF)

When ordering, please specify the length of A and B. (Details are mentioned in "DIMENSIONS".)

Wetted parts material:

316st.st., 316Lst.st. or hastelloy C (Remote type only)

Detecting element:

With protector or without protector

Allowable temperature range (Detecting element):

0 ~ 330°C

Pressure range:

0 ~ 10 → 0 ~ 50MPa (0 ~ 100 → 0 ~ 500kgf/cm²)

Indication accuracy:

±1.5%F.S.

Scale angle:

270°

Blowout disk:

When an emergency, Bourdon tube exploded, it opens up internal pressure from blowout disk, and blowout disk prevents puncture of window.

Note To keep normal function, please take a space behind of gauge at least 10mm when installing. Don't process or stop up the blowout disk.

Case material-finishing:

Aluminium alloy die casting (ADC12)-Black

Max. capillary tube length:

3m (Remote type)

Weight:

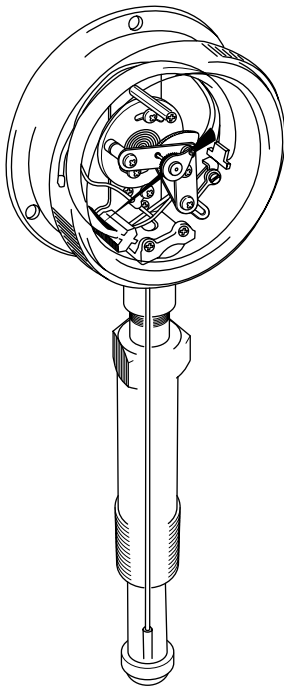
Approx. 1.3kgs ~ approx. 1.9kgs

SPECIFICATION 2

Minimum graduation and weight:

Diaphragm DIA.	Pressure range MPa (kgf/cm ²)	Minimum graduation MPa (kgf/cm ²)	Weight Approx. (kgs)
18 DIA.	0 ~ 25 (0 ~ 250)	0.5 (5)	1.3
	0 ~ 35 (0 ~ 350)	1 (10)	1.4
	0 ~ 50 (0 ~ 500)	1 (10)	1.6
23.6 DIA.	0 ~ 10 (0 ~ 100)	0.2 (2)	1.6
	0 ~ 15 (0 ~ 150)	0.5 (5)	1.6
	0 ~ 25 (0 ~ 250)	0.5 (5)	1.7
	0 ~ 35 (0 ~ 350)	1 (10)	1.9

CONSTRUCTION

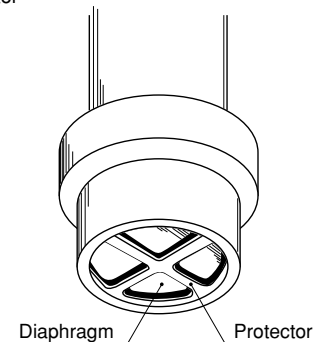


Liquid is filled between diaphragm and bourdon tube.
 Pressure which received by diaphragm is transmitted to bourdon tube by filled liquid as pressure medium and displace the bourdon tube.
 Pointer moves by using this displacement.

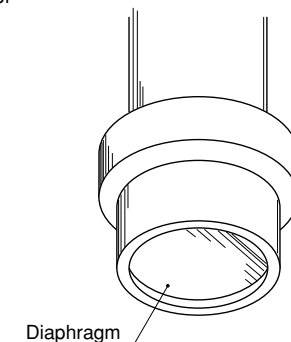
DETECTING ELEMENT

The protector is used for the protection of diaphragm.

With protector

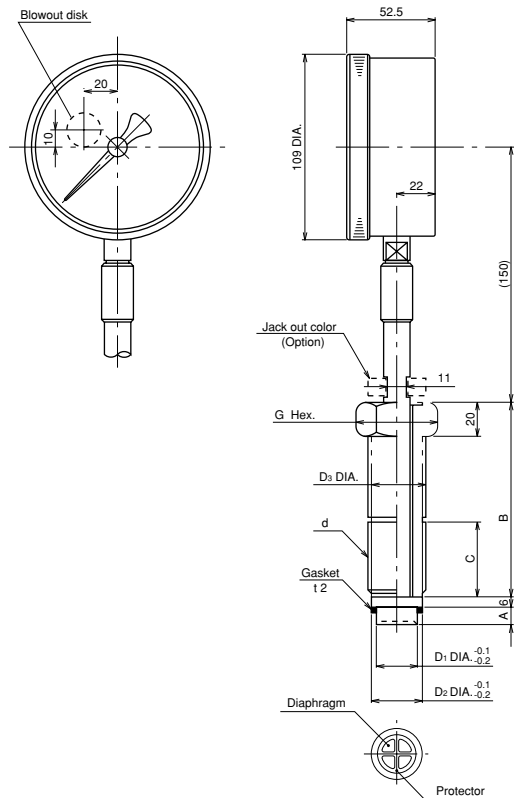


Without protector

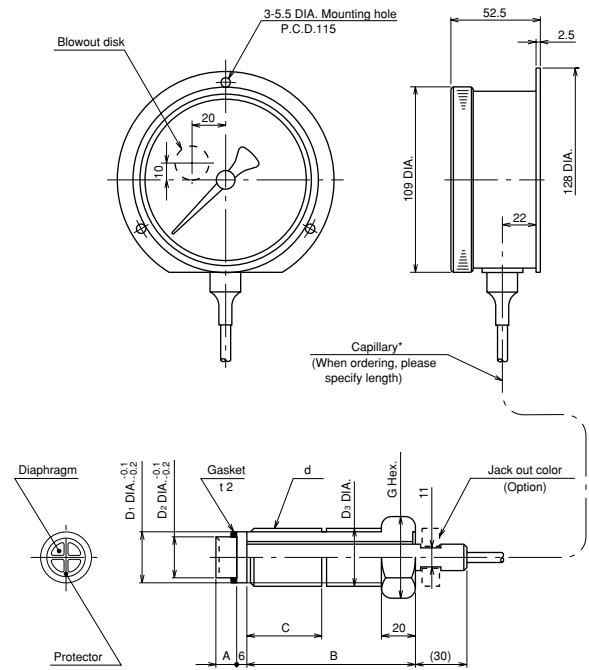


DIMENSIONS

Direct type



Remoto type



When ordering, please specify length of A and B.

Diaphragm D ₁ DIA.	D ₂	D ₃	d	G Hex.	Capillary length* (Remoto type)
18	24	23.5	G ³ /4B	36 × 41.6	1m
23.6	30	29.5	G1B	41 × 47.3	2m 3m

* A length=10 ~ 30mm (5mm step)

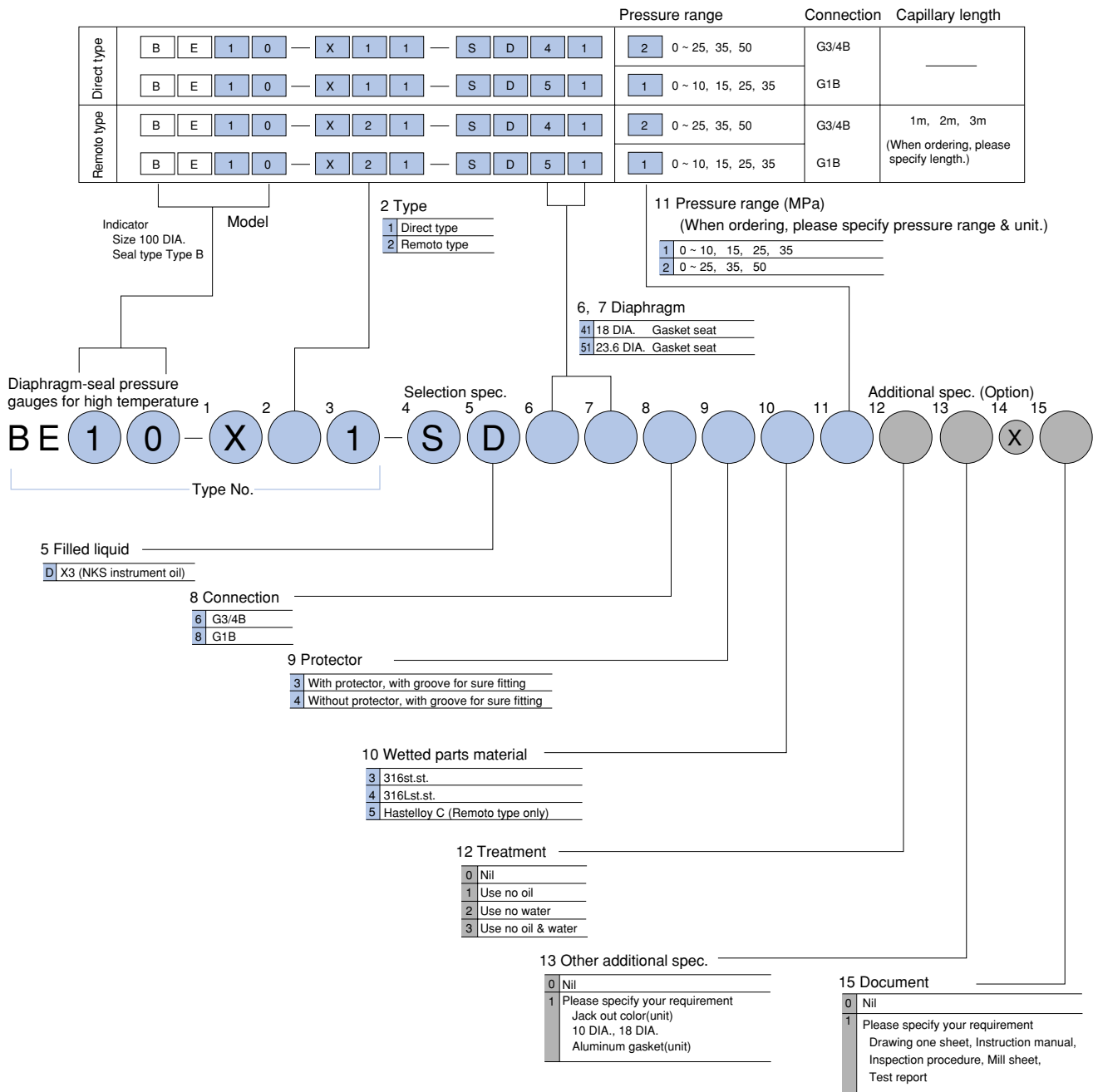
B length=55, 80 ~ 450mm (10mm step)

C=45 (25 in case of B=55)

Type No. constitution

Please specify Type No., each specification and range, when ordering.

Note: For this Model, there is no applicable item for the figures X, but please specify X when ordering.



The contents in the catalogue are subject to change without notice.

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