

Low Pressure Capsule Gauges

Product overview

Capsule gauges are sensitive instruments used in low pressure applications typically not exceeding 60kPa. It is used in a wide range of applications including medical, heating, gas pipe-lines, burners, air-conditioner and many others. The standard low-pressure capsule gauges are designed to measure the low pressure of gas that does not corrode the copper alloy. This gauge series features a copper alloy capsule and socket. Suitable for accurate measuring the low pressure of corrosive gas or fluid in corrosive environment. This gauge series features a SUS 316 capsule and socket.



How the Capsule Gauge Works

Capsule gauges use the diaphragm capsule as the sensing element for pressure measurement. The diaphragm capsule is an elastic metal sensing element comprised of two thin wall diaphragms whose sides are soldered together to the capsule. Whenever air, gas enters the intake port (gauge connection), it travels into the diaphragm capsule. The walls of the capsule expand and contract in response to the change in pressure. This change is then transferred to a rotating rod and arm that rest on the outside of the capsule. The rotating rod is connected to a geared movement through a linkage system. Connected to a shaft, this system then drives the pointer over a dial marked in appropriate pressure or vacuum units to provide a pressure reading.

Specification

- Diameter: 60,100, 150
- Accuracy: 2.5%,1.6%
- Work Environment: -25 ~55 °C, relative humidity: less than 80%
- Temperature impact: The temperature change is not more than 0.4%/10°C When the temperature deviates from 20±5°C.
- Anti-working vibration:V.H.3 Class
- Dual scales available

Material of Main parts

Table 1

Parts	Standard type Capsule Gauge	Stainless steel Capsule Gauge
Connection	Brass	SST302
Capsule	Tin bronze	SST302
case	Cold rolled copper	SST302
Movement	Brass	SST302

Model Selection

Table 2

Item	Code	Description
Product	Y	Pressure Gauge
Function 1	E	Capsule Gauge(low pressure)
Function 2	F	Stainless steel material
	N	Liquid filled(anti-vibration)
	FN	Stainless steel material & liquid filled(anti-vibration)
Diameter	60	60mm
	100	100mm
	150	150mm
Mounting	AO	Bottom mounting
	AT	Bottom mounting with front flange
	AH	Bottom mounting with back flange
	ZO	Back mounting
	ZT	Back mounting with front flange
	BO	Lower back mounting
	BT	Lower back mounting with front flange
	ZK	Back U clamp mounting
	BK	Lower back ,U clamp mounting
	S	Others
Connection	C1	Thread M14×1.5
	C2	Thread M20×1.5
	C3	Thread 1/4NPT
	C4	Thread 1/2NPT
	Cx	Others
Measuring range		For example 0-6Kpa

Measuring Range and Accuracy

Table 3

Model	Range (Unit: Kpa)	Accuracy (%)
YE-60, YE-100, YE-150	-1.6~0, -2.5~0, -4~0, -6~0, -10~0, -16~0, -25~0, -40~0, -60~0, 0~1.6, 2.5, 4.6, 10, 16, 25, 40, 60, ±0.8, ±1.2, ±2, ±3, ±5, ±8, ±12, ±20, ±30	2.5

Note: YE-150 can have -500~0pa, 0~500pa, +250pa, ±500pa.

Dimensions

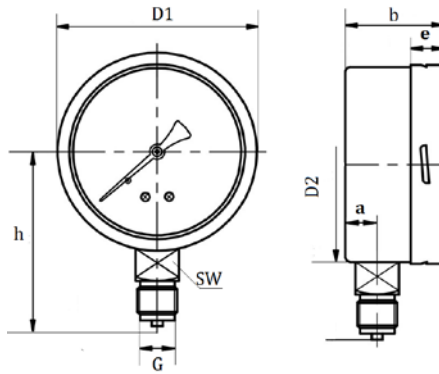


Table 4

Size	a	b	D1	D2	e	G	h	SW
60	8.5	40	61	60	2	M14*1.0	54	14
100	15	51	101	99	17.5	M20*1.5	88	22
150	16	49	151	148	16.5	M20*1.5	113	22