



Differential Pressure Gauges

Stainless Steel Case

Diaphragm Element Series

Steel Wetted Parts • Type 722.14

Stainless Steel Wetted Parts • Type 732.14

Pressure Gauges

Application

For measurement of differential pressure in applications with a high differential pressure overload and/or a high static process pressure. Suitable for corrosive environments, and contaminated and viscous gaseous or liquid media.

Type 732.14: for corrosive media

Type 722.14: for neutral media

Size

4" and 6" (100 and 160 mm)

Accuracy

±1.5% of span

Scale Ranges

25 to 100 "H₂O (60 to 250 mbar)

6 to 1000 PSI (0.4 to 60 bar)

or equivalent other ranges for pressure or vacuum

Working Range

Steady: full scale value

Fluctuating: 0.9 x full scale value

Overpressure Safety

⊕ or ⊖ side max. 600, 1500, or 4000 PSI

Operating Temperature

Ambient: -4°F (-20°C) to 140°F (60°C)

Medium: max. + 212°F (+100°C)

Temperature Error

Additional error when temperature changes from reference temperature of 68°F (20°C) ± 0.4% for every 18°F (10°C) rising or falling. Percentage of span.

Weather Protection

Weather resistant (NEMA 4X / IP 54)

Standard Features

Flange (exposed to pressure medium)

Type 732.14: 316 stainless steel

Type 722.14: zinc plated steel

Pressure Connection

2 x 1/2"NPT female

Bottom entry or back entry

Pressure elements (exposed to pressure medium)

Material: 316 stainless steel / NiCrCo alloy (Duratherm)

Sealing rings (exposed to pressure medium)

Type 732.14: FPM (Viton)

Type 722.14: NBR (Buna rubber)

Venting of the pressure chambers

(exposed to pressure medium)

316 stainless steel for scale ranges ≤ 4 PSI (250 mbar)

Optional for scale ranges > 4 PSI (250 mbar)

Movement

Type 732.14: 316 stainless steel

Type 722.14: Copper alloy



Dial

White aluminum with black lettering

Pointer

Black aluminum, adjustable

Zero Adjustment

Standard adjustable pointer

(External adjustment for gauges with liquid filling and/or alarm contacts or transmitters)

Case / Bayonet Ring

Type 732.14: stock finish stainless steel

Type 722.14: black finish steel

Window

Type 732.14: laminated safety glass

Type 722.14: flat glass

Hydraulic Diaphragm Cushion

Silicone oil

Gauge Mounting

Pressure entries identified ⊕ and ⊖

⊕ high pressure, ⊖ low pressure

Mounts to sturdy piping, drilled mounting holes, or optional bracket for surface or pipe mounting

Order Options

Liquid filling (Type 733.14 / Type 723.14)

Venting of the pressure chambers (exposed to pressure medium) for scale ranges > 4 PSI

Hydraulic cushion of special liquid, i.e. for use in oxygen (static pressure max. 1500 PSI)

Combined readout of diff. pressure and process pressure

Wetted parts made of special materials

Special pressure connection

Mounting bracket for surface or pipe mounting

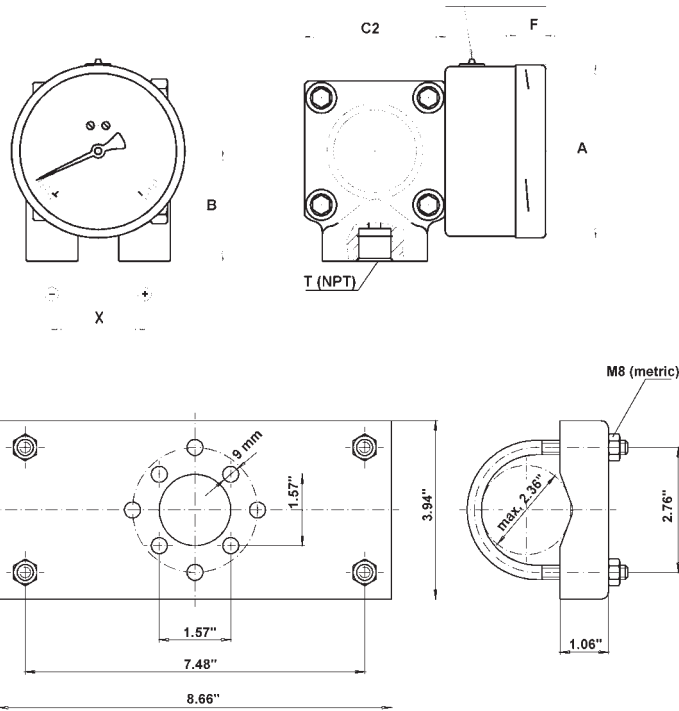
Chemical seal

Pressure equalizing valve (see data sheet AAM 09.11)

Alarm contacts (see data sheet AAE 08.01)

6" only: transmitters (see data sheet AAE 08.02)

Dimensions:



Order Option
Mounting bracket for surface or pipe mounting

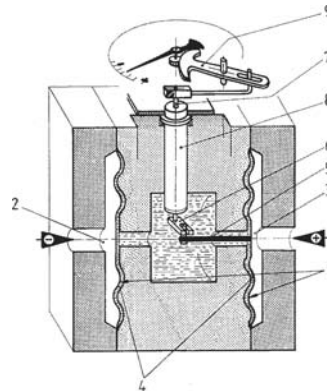
TYPE	WEIGHT	KEY	A	B	C1	C2	F	T	X
7X2.14 4"	8.6 lb	mm	101	64	58.5	82	17.5	1/2"	54
		in	3.98	2.5	2.3	3.2	.68		2.1
7X2.14 6"	9.5 lb	mm	161	64	65.5	82	17.5	1/2"	54
		in	6.33	2.5	2.6	3.2	.68		2.1

NOTE: For ranges 4 PSI and lower, "B" dimension changes to 2.8" (70 mm) and "C2" dimension changes to 5.5" (140 mm). Weight increases by approx. 20 lbs.

Design and Operating Principle

- Process pressures p_1 and p_2 are applied to the chambers - (2) and + (3).
- Gauge head (4) is filled with liquid.
- Differential pressure across + and - pressure sides deflects the diaphragm (1) and displaces the liquid.
- The displacement of the connection rod (5) is converted through the use of a transmitting lever (6) into rotation, which is transferred over an axial shaft (7) to the movement (9).
- The torque pipe (8) seals, assuring a frictionless path.
- Overpressure protection in both directions up to the max. static pressure rating is provided by contoured metal bolsters.

Illustration of Operation Principle



**THE MEASURE OF
Total Performance™**

Ordering Information:

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice



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