Industrial Electric Contact Pressure Gauges (Dry / Silicone Filled)

Applications

- Process control and monitoring systems
- For pressure measurement applications of noncorrosive gaseous and liquids (not with high density and solid particles fluids)
- Machine building industry
- Power plants
- Process industry
- Ship building industry

Sample picture



General Features

- Stainless steel case
- Silicone filled version for the process with vibration
- Suitable for harsh operating conditions

Standard Technical Features

Nominal size
100 mm, 160 mm

Ingress protection
IP 54 : Dry version
IP 65 : Filled version

Accuracy class
Cl. 1.0 : 100 mm, 160 mm

Scale ranges
0 … 1 bar to 0 … 400 bar
-1 … 0 bar to -1 … +24 bar (vacuum-positive pressure)

Pressure limitation
Steady : 3/4 of full scale
Short time : Full scale

Temperature effect
0,04 x (t2 - t1) %full scale (must be added error limit)
t2 : media temperature t1 : +20 °C reference temperature

Ambient temperature
H200 (Dry version) : -20 … +60 °C
H200G (Filled version) : -20 … +60 °C

Media temperature
H200 (Dry version) : +60 °C maximum
H200G (Filled version) : +60 °C maximum

Case
304 stainless steel

Bezel ring
304 stainless steel (Bayonet type)

Pointer
Black painted Aluminium DIN pointer

Dial
Aluminium with white background

Window
Polycarbonate

aterma® EXPERT OF PRESSURE & TEMPERATURE

Standard Technical Features

Movement
Brass

Bourdon tube
<100 bar : C tipi - copper alloy
≥100 bar : Helical type - copper alloy

Process connection
Material : Brass
100 mm : G 1/2 B (22 mm)
160 mm : G 1/2 B (22 mm)

Electrical connection
EN 175301-803 connector

Electric contact material
Ag/Ni - 10μ gold plated

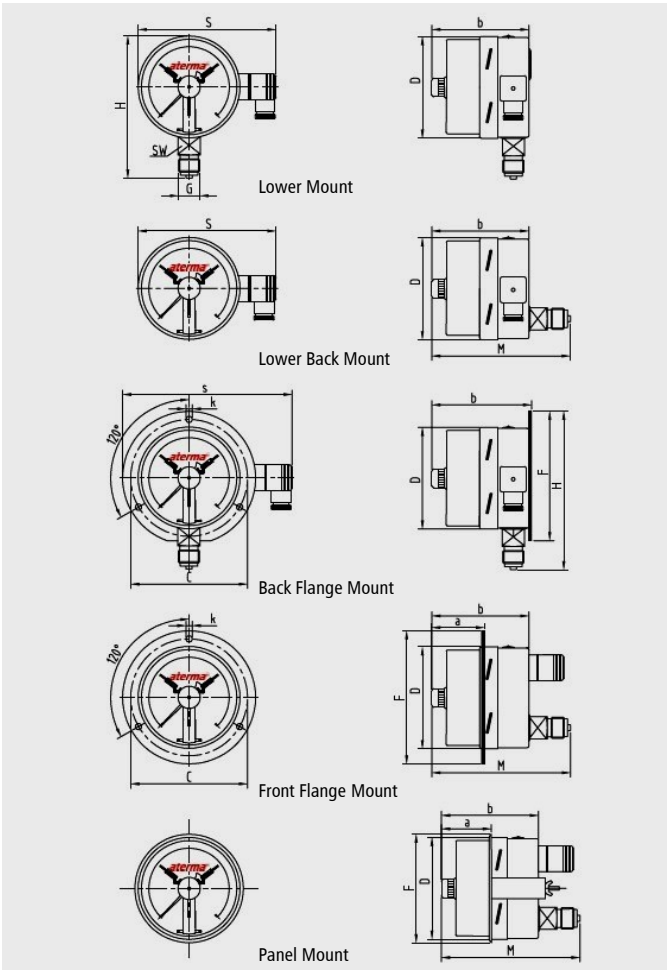
Electric contcat type
Snap-action contact

Recommended contact load values

		Resistive load		Max. İnductive load
Voltage (V)		AC	DC	cos ϕ > 0.7
AC	DC	mA	mA	mA
24	24	600	400	250
50	50	450	300	200
110	110	240	200	130
230	220	120	100	65

Electrical informations

Maximum voltage	: 230 V
Maximum load	: 30 W / 50 VA
Maximum thermal current	: 0.7 A



Dimensions (mm)												Weights (1) (kg)	
Mounting type	D	a	b	H	M	s	F	C	k		SW	H200	H200G
Lower Mount	100	-	97,00	139,00	-	140,00	-	-	-	G 1/2 B	22	1,00	1,20
	160	-	109,00	198,50	-	200,00	-	-	-	G 1/2 B	22	1,60	2,15
Lower Back Mount	100	-	97,00	-	141,00	140,00	-	-	-	G 1/2 B	22	1,00	1,20
	160	-	109,00	-	158,50	200,00	-	-	-	G 1/2 B	22	1,60	2,15
Back Flange Mount	100	-	100,00	156,00	-	140,00	132,00	116,00	5,30	G 1/2 B	22	1,05	1,30
	160	-	112,00	217,50	-	200,00	196,00	178,00	6,15	G 1/2 B	22	1,80	2,45
Front Flange Mount	100	56,00	100,00	-	145,00	-	130,00	116,00	6,15	G 1/2 B	22	1,05	1,30
	160	69,00	112,00	-	160,00	-	196,80	178,00	6,15	G 1/2 B	22	1,70	2,35
Panel Mount	100	53,00	100,00	-	145,00	-	107,50	-	-	G 1/2 B	22	1,20	1,45
	160	66,00	112,00	-	160,00	-	168,00	-	-	G 1/2 B	22	1,80	2,40

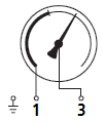
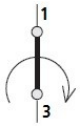
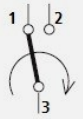
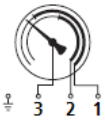
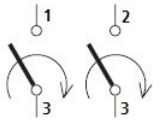
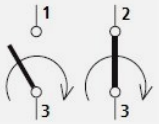
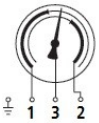
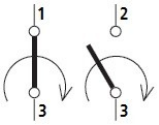
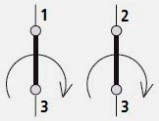
(1) : The weights are for 100 mm nominal size pressure gauges.

aterma® EXPERT OF PRESSURE & TEMPERATURE

aterma®

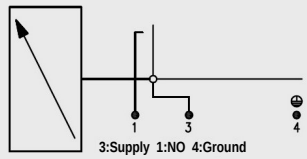
Contact Types

Single Contact

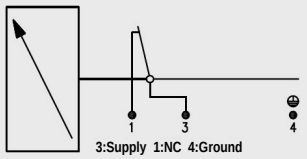
Code	Contact positions	Explanation	Functional Scheme
K1	**NO** Normally open 	While the pointer is below the set point ; Contact is open (no electric) While the pointer is above the set point ; Contact closes (electric transmitted)	
K2	**NC** **Normally close** 	While the pointer is below the set point ; Contact is close (electric transmitted While the pointer is above the set point ; Contact opens (no electric)	
K3	**SPDT** Change over 	While the pointer is below the set point ; Pole-1 is close (electric transmitted) - Pole-2 is open (no electric) While the pointer is above the set point ; Pole-1 opens (no elektric) - Pole-2 closes (electrik transmitted)	
	Double Contact		
K11	**NO - NO** 1.contact : Normally open 2.contact : Normally open 	While the pointer is below the set point ; 1.contact is open (no electric) - 2.contact is open (no electric) While the pointer is above the set point ; 1..contact and 2.contact close (electric transmitted)	
K12	**NO - NC** 1.contact : Normally open 2.contact : Normally close 	While the pointer is below the set point ; 1.contact is open (no electric) - 2.contact is close (electric transmitted) While the pointer is above the set point ; 1.contact closes (electric transmitted) - 2.contact opens (no electric)	
K21	**NC - NO** 1.contact : Normally close 2.contact : Normally open 	While the pointer is below the set point ; 1.contact is close (electric transmitted) - 2.contact is open (no electric) While the pointer is above the set point ; 1.contact opens (no electric) - 2.contact closes (electric transmitted)	
K22	**NC - NC** 1.contact : Normally close 2.contact : Normally close 	While the pointer is below the set point ; 1.contact and 2.contact are close (electric transmitted) While the pointer is above the set point ; 1.contact opens (no electric) - 2.contact opens (no electric)	

Wiring Diagrams

K1 (NO)



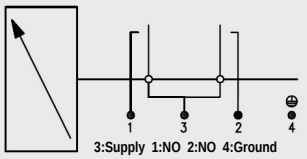
K2 (NC)



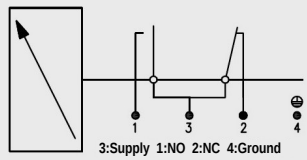
K3 (SPDT)



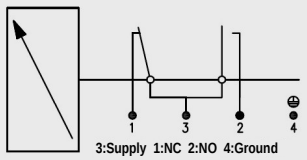
K11 (NO - NO)



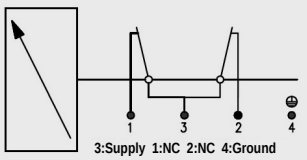
K12 (NO - NC)



K21 (NKC- NO)



K22 (NC - NC)



AK TEKNİK
FABRİKA MALZ. TİC. VE SAN. LTD. ŞTİ.

Meclis Mah. Atatürk Cad.
No.51/2-3 34785
Sancaktepe / İSTANBUL / TÜRKİYE
Tel: +90 216 314 20 50

www.aterma.com.tr
satis@aterma.com.tr