# All Stainless Steel Electric Contact Pressure Gauges (Dry / Silicone Filled)

## Applications

- Process control and monitoring systems
- For pressure measurement applications of corrosive gaseous and liquids (not with high density and solid particles fluids)
- Chemical and Petro-chemical industry
- Power plants
- Waste water treatments
- Ship building industry
- Food and beverage industry

## Sample Picture




## General Features

- All stainless steel material
- Filled version for the process with vibration
- High temperature resistance

## 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 … 0,6 bar to 0 … 1600 bar
-1 … 0 bar to -1 … +24 bar (vacuum-positive pressure)

**Pressure limitation**
Steady : 3/4 of full scale
Short time : ≤100 bar: 1.25 x full scale
: >100 bar to ≤600 bar: 1.15 x full scale
: >600 bar to ≤1600 bar: 1.10 x 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**
A300 (dry version) : -20 … +60 °C
A300G (filled version) : -20 … +60 °C

**Media temperature**
A300 (dry version) : +200 °C maximum
A300G (filled version) : +100 °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



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## Standard Technical Features

### Movement
304 stainless steel

### Bourdon tube
<100 bar : C type - 316L stainless steel
≥100 bar : Helical type - 316L stainless steel

### Process connection
Material : 316L stainless steel
100 mm : G 1/2 B (22 mm square)
160 mm : G 1/2 B (22 mm square)

### Electrical connection
EN 175301-803 connector

### Electric contact material
Ag/Ni - 10$\mu$ gold plated

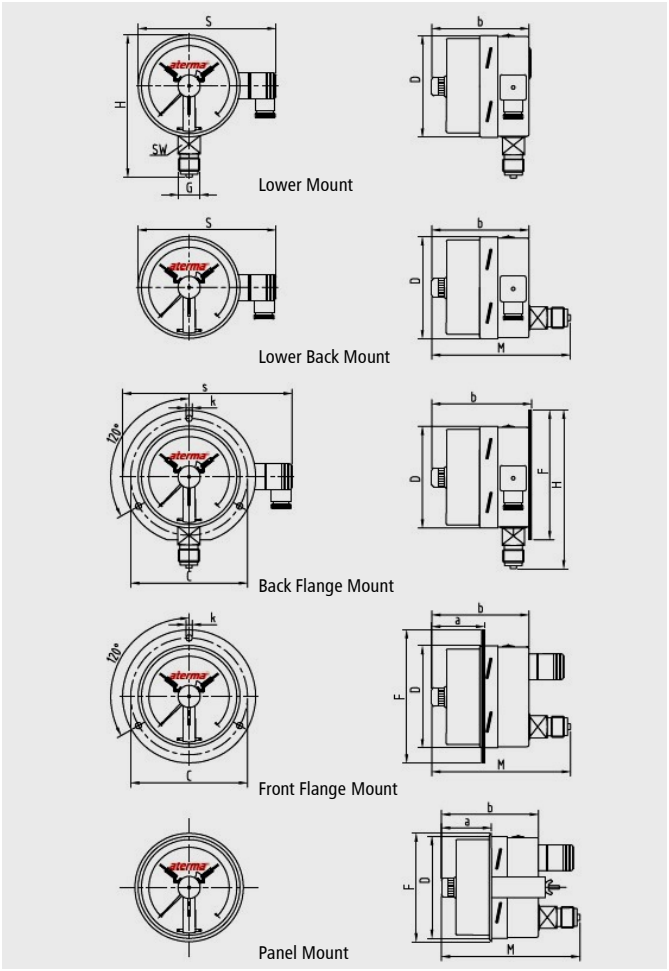
### Electric contcat type
Snap-action contact

### 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 | A300 | A300G |
| 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.

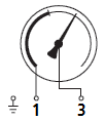
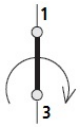
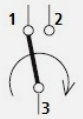
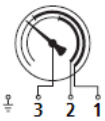
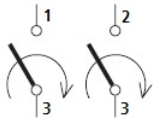
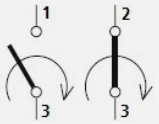
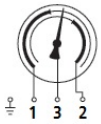
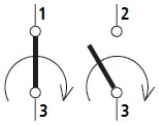
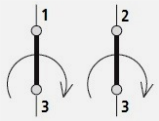


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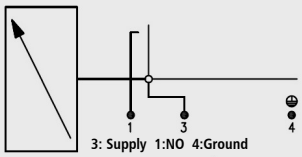
## Contact Types

### Single Contact

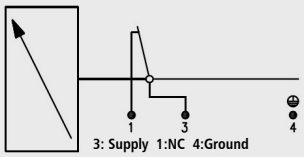
| Code | Contact positions | | Explanation | Functional Scheme |
|---|---|---|---|---|
| K1 | **NO**<br>Normally open |  | While the pointer is below the set point ;<br>Contact is open (no electric)<br>While the pointer is above the set point ;<br>Contact closes (electric transmitted) |  |
| K2 | **NC**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

## Wiring Diagrams

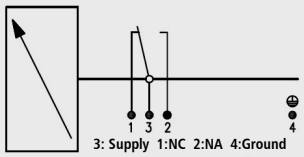
K1 ( NO )



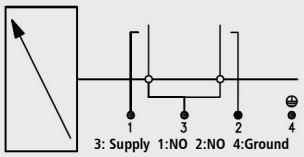

K2 ( NC )



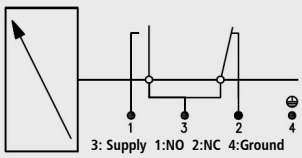

K3 ( SPDT )



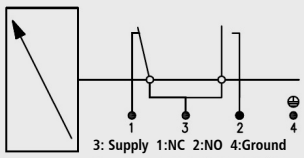

K11 ( NO - NO )



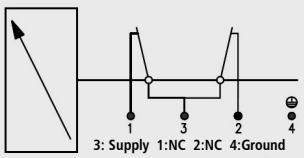

K12 ( NO - NC )




K21 ( NC - NO )




K22 ( NC - NC )






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