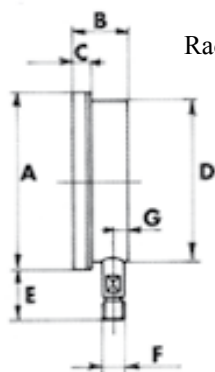


- Pressure is one of the most critical process' variables and its determination is one of the most frequent in every industrial field. It is therefore extremely important to deal with a wide range of gauges which can grant high precision and steady characteristics, good solidity and resistance to chemical corrosion.
- Our pressure gauges SA are manufactured with a stainless steel sealed case and the pressure sensitive element consists in a stainless steel Bourdon spring. The amplifying clock-work can be either simple or stiffened and is available in stainless steel. The connector is in AISI 316 stainless steel, TIG welded.
- Every gauge is supplied, on request, with minimum, maximum or minimum and maximum electrical contacts. The standard gauge can be provided with many different kinds of diaphragm seals according to the different industrial requirement.
- The traditional Bourdon spring gauges are not suitable for pressure' measurement in the food industry. In fact the alimentary fluids could obstruct the sensitive element (Bourdon spring) while entering and deposit themselves on the inside, with subsequent hygienic problems due to the bacterial contamination.
- To avoid the above-mentioned problems the gauge must be supplied with a diaphragm seal (model SA/40) made of an appropriately shaped diaphragm made of AISI 316 stainless steel. As the gauge and the diaphragm are connected in a whole body, their assembly and disassembly causes no problems. The diaphragm seal has a threaded connector according to the DIN-SMS-IDF-CLAMP standards.
- It's fitting to underline that all the pressure gauges with diaphragm seals are damped, so that they can work correctly even in presence of strong pulsations.
- The electrical contacts are assembled on the gauge dial (model SA 40/C.E.). They can be preset on the whole scale (270°) by means of an adjustment knob placed on the front part of the gauge, in the centre of the glass. They have a small adjustable magnet which prevents the sparking of the electric arc and the resulting wear of the silver contact points.
- Our manufactures these diaphragm seal gauges with different types of connectors. One with a smooth stem with an AISI 316 diaphragm seal of 23,8 mm of diameter (model SAS 24). Another one with a rectangular plate. The third with a female nut of 1" ¼ gas and diaphragm seal AISI316.

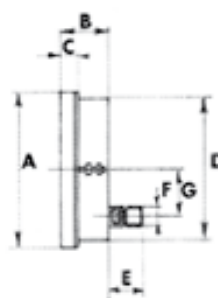


TYPE SA

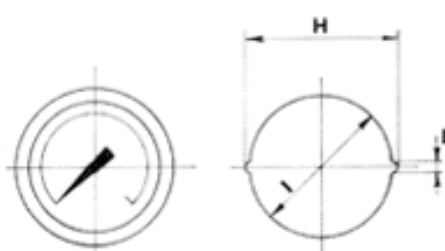
- Measure range: from 0 to +600 bar
0-1-1,6-2,5-4-6-10-16-20-25-40-60-100-160-250-400-600 bar
- Vacuum: 76 - 0 cm/Hg; 0-100%, pneumatic receiver (3-15 PSI)
- Dial: white with black scale Ø 63 - 100 - 150 - 200 mm
- Case: stainless steel with plexiglass window, sealed with double U gasket
- Hand: made of stainless steel with micrometric zero-setting device
- Sensitive element: Bourdon spring manufactured only in stainless steel with TIG welded
- Amplifying clockwork: from stainless steel, simple or stiffened
- Connector: made of stainless steel AISI 316, TIG welded
- Accuracy: 1 % of maximum range value
- Degree of protection: IP 55
- On demand: case with glycerol



Radial connection



Back connection



| Ø | A | B | C | D | E | F | G |
|-----|-----|----|----|-----|----|-------|----|
| 63 | 68 | 30 | 10 | 90 | 25 | 1/4"G | 11 |
| 100 | 130 | 40 | 18 | 110 | 50 | 1/2"G | 18 |
| 150 | 175 | 50 | 18 | 155 | 50 | 1/2"G | 18 |
| 200 | 230 | 55 | 20 | 205 | 50 | 1/2"G | 18 |

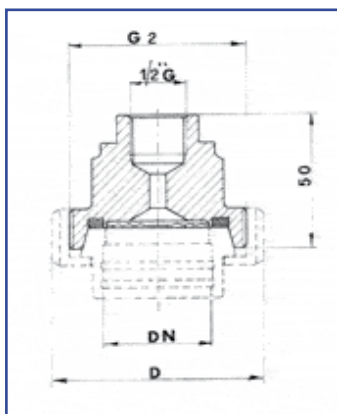
| Ø | A | B | C | D | E | F | G | H | I | L |
|-----|-----|----|----|-----|----|-------|----|-----|-----|---|
| 63 | 68 | 30 | 10 | 90 | 25 | 1/4"G | | | | |
| 100 | 130 | 50 | 18 | 110 | 40 | 1/2"G | 40 | 125 | 112 | 6 |
| 150 | 175 | 50 | 18 | 155 | 40 | 1/2"G | 45 | 170 | 157 | 6 |
| 200 | 230 | 55 | 20 | 205 | 50 | 1/2"G | 45 | 225 | 207 | 6 |

SA 40

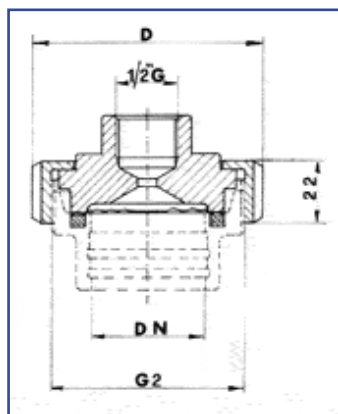


TYPE SA 40 - pressure gauges with diaphragm seals for the food industry

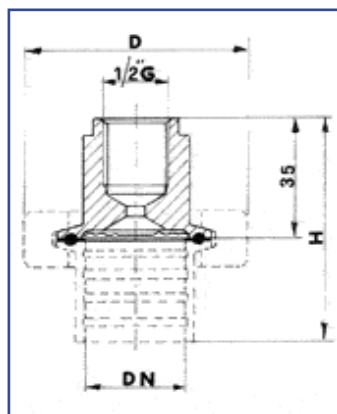
- Measure range: 0 - 2,5 - 5 - 6 - 10 - 16 - 20 - 25 - 40 - 60 - 100 bar
- Dial: white with black scale Ø 63 - 100 - 150 mm
- Case: stainless steel with plexiglass window, sealed with double U gasket
- Hand: made of stainless steel with micrometric zero-setting device
- Sensitive element: AISI 316 diaphragm seal laser welded
- Clockwork: stainless steel amplifying
- Connection: radial or back DIN, SMS, IDF, CLAMP standardů
- Accuracy: 1 % of maximum scale value
- Degree of protection: IP 55
- Shock absorber: in standard and built-in
- On demand: case with glycerol



Diaphragm with male part to DIN 11851



Diaphragm with nut to DIN 11851

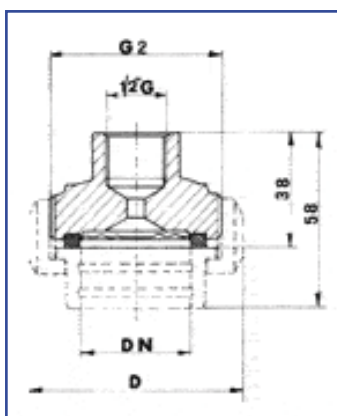


Diaphragm seals with CLAMP

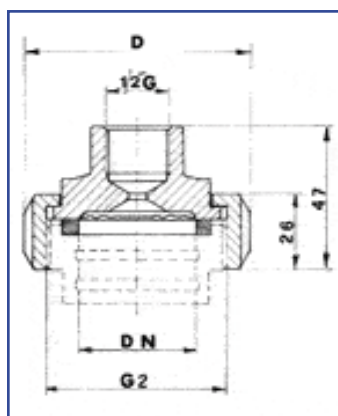
| DN | D | G2 |
|----|----|-----------|
| 25 | 63 | Rd52x1/6" |
| 40 | 78 | Rd65x1/6" |
| 50 | 92 | Rd78x1/6" |

| DN | D | G2 |
|----|----|-----------|
| 25 | 63 | Rd52x1/6" |
| 40 | 78 | Rd65x1/6" |
| 50 | 92 | Rd78x1/6" |

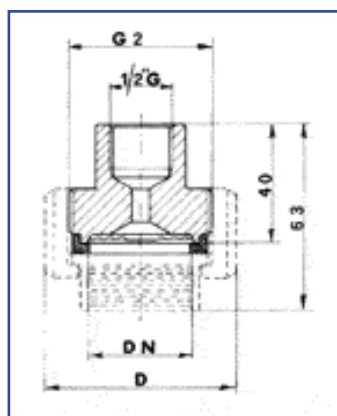
| DN | D | H |
|--------|----|----|
| 1 1/2" | 72 | 64 |
| 2" | 85 | 69 |



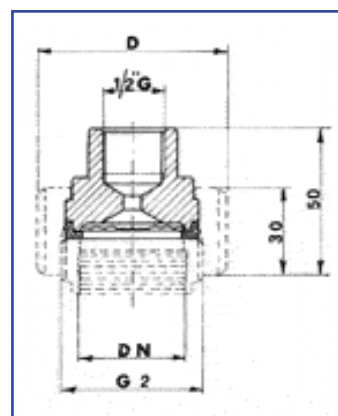
Diaphragm with male part SMS



Diaphragm with nut SMS



Diaphragm with male part IDF



Diaphragm with nut IDF

| DN | D | G2 |
|--------|----|-----------|
| 1 1/2" | 74 | Rd60x1/6" |
| 2" | 84 | Rd70x1/6" |

| DN | D | G2 |
|--------|----|-----------|
| 1 1/2" | 74 | Rd60x1/6" |
| 2" | 84 | Rd70x1/6" |

| DN | D | G2 |
|--------|----|------------|
| 1 1/2" | 64 | IDF 1 1/2" |
| 2" | 79 | IDF 2" |

| DN | D | G2 |
|--------|----|------------|
| 1 1/2" | 64 | IDF 1 1/2" |
| 2" | 79 | IDF 2" |

SA 40/9



TYPE SA 40/9 - pressure gauge with diaphragm gasket seals and logarithmic scale

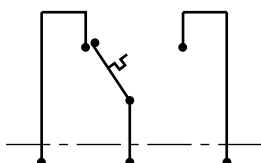
- Measure range: 0 - 3 - 9 bar
- Logarithmic scale - wide at the beginning and narrow at the end.
- In order get precise pressure reading at low values and to be able to withstand high pressure values during the cleaning operations of the gauge.

SA 40/M



TYPE SA 40/M - pressure gauge with diaphragm seal and micro-switch

- In this model of gauge the micro-switch is assembled on the amplifying clock-work and is adjustable on the whole scale width by means of an appropriate key. The micro-switch can operate on a maximum or minimum point. A three wire cable comes out of the gauge.

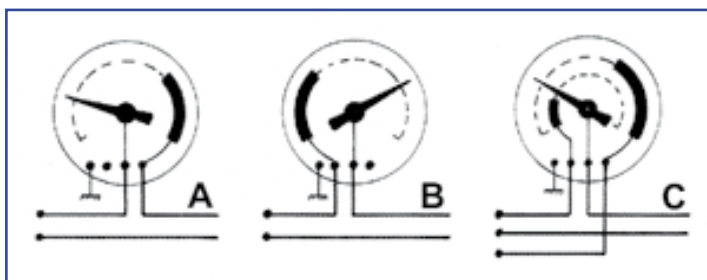


SA 40/C.E.



TYPE SA 40/C.E. - pressure gauge with diaphragm seal and electric contacts

- Electric contacts are assembled on the gauge dial.
- They can be pressed on the whole scale (270°) by means of an adjustment knob on the front part of the gauge, in the center of the window.
- The electrical contacts have a small adjustable magnet which prevents the sparking of the electric arc and the resulting wear of the silver contact points.
- The operation is very simple: when the pressure changes the gauge hand moves dragging an auxiliary arm that operates the on-off electrical contacts at the preset value.
- Contact material: Silver-Nickel alloy (Ag 80 - Ni 20)
- Current: max. 1A
- Ambient temperature limits: -20 / +140 °C (Difference between switch point and set point due to attraction force of magnet (adjustable): 2-6%)
- Added indication error: 0,5 - 2 % u.s.v.
- Supply voltage: 24V max.



- electrical contact of max. A
- electrical contact of min. B
- 1 electrical contact of max, 1 of min. C

SA 40/E



TYPE SA 40/E - transmitter of pressure

- with ceramic sensor and calibrate, compensate, amplify signal
- Measure range: 0 - 1 - 1,6 - 2,5 - 4 - 6 - 10 - 16 - 20 - 25 - 40 - 60 - 100 bar
- Connection: diaphragm AISI 316 laser welded
- Connectors: DIN 11851 (DN 25, 40, 50), SMS (DN 38, 51), CLAMP (1 1/2", 2", 2 1/2")
- Current supply: 11 - 34 VDC
- Out-put: 4 - 20 mA
- Working temp.: -10 / +85 °C
- Accuracy: ± 0,5 %

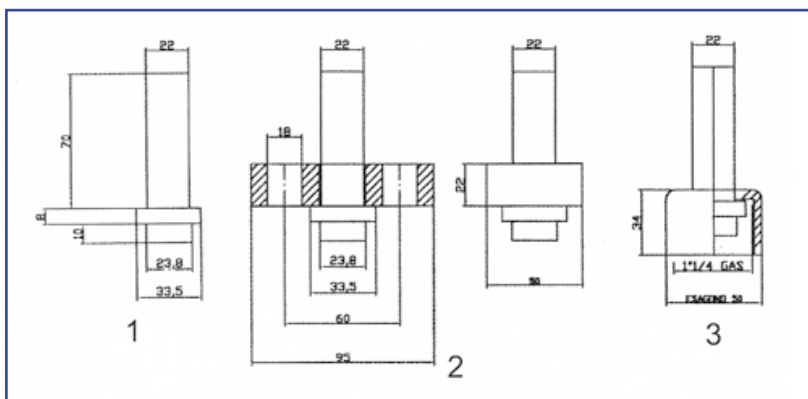
SAS 24



TYPE SAS 24 - homogenizer pressure gauge

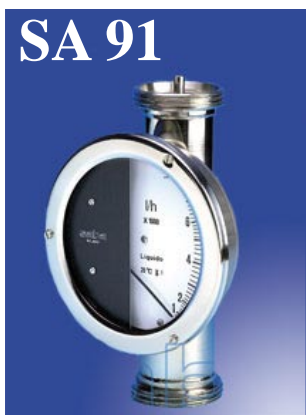
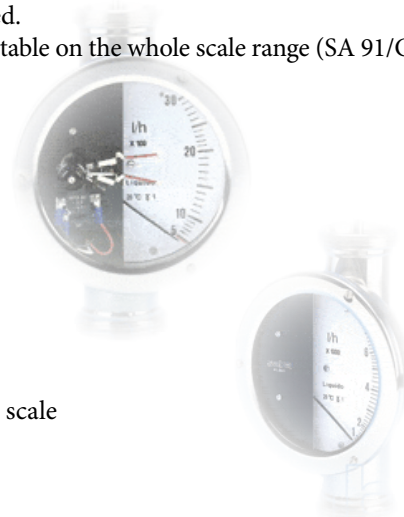
- Measure range: 0 - 400 bar (5000 PSI)
- Case: stainless steel Ø 130 - 150 mm
- white dial with double scale: black for bars and red for PSI
- Vibration shock absorber: standard and built-in
- Accuracy: 1 %
- Degree of protection: IP 55

- Connection: **1** with a smooth stem with an AISI 316 diaphragm seal of 23,8 mm of diameter
2 with a rectangular plate
3 with a female nut of 1 1/4" gas and diaphragm seal AISI316



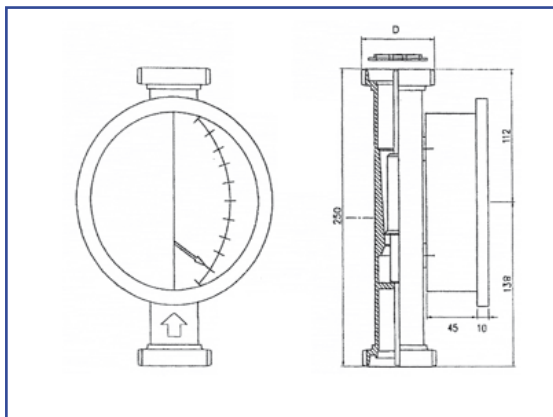
• This series of instruments has been designed for the measurement of the flow or fluids. The measurable flow rates range from fraction of m³/h to 50 m³, with a precision up to 1% of the full scale' value. The sensitivity of the instruments is high, too: it is possible to measure a flow equivalent to 1/10 of the nominal value. These instruments can be used on fluids bearing a great variety of chemical and physical characteristics. They don't need a particular maintenance. Internal cleaning is not so difficult, because the surfaces coming into contact with the fluid are smooth. The cinematisms are located in a water-proof part of the instrument aside from the fluids, since the transmission of the signal from the sensible element to the cinematisms is made by means of an magnetic field. Thus our instruments are particularly suitable when strict sanitary measures must be observed.

• Flow meter' indicator with alarm minimum and maximum, minimum, maximum adjustable on the whole scale range (SA 91/C.E.).

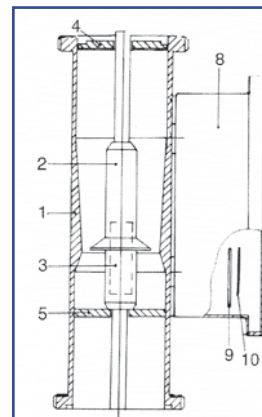


TYPE SA 91

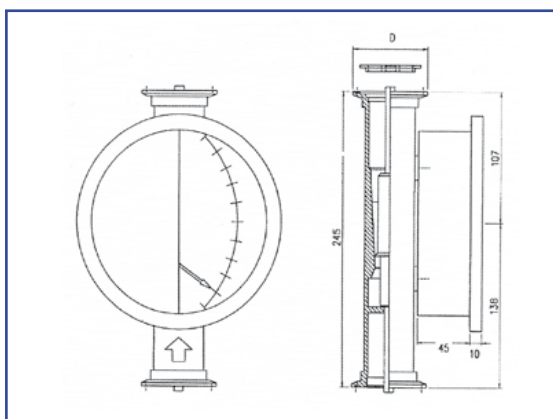
- Measure range: 1 - 10
- Accuracy: ± 1% of full scale
- Max operating temperature: 10 - 300 °C
- Scale length: 120 mm
- Material contact parts: AISI 316
- Material indicator case: AISI 304
- Degree of tightness: IP 55
- Connection: DIN, SMS, CLAMP, GAS
- Gaurantee for float meter 's body: Five years
- The instrument must stand vertical



| DIN | Flow rate (l/h) | |
|-------|-----------------|--------|
| | from | to |
| DN 25 | 100 | 1.000 |
| | 200 | 2.000 |
| DN 40 | 300 | 3.000 |
| | 500 | 5.000 |
| DN 50 | 800 | 8.000 |
| | 2.000 | 16.000 |
| DN 65 | 2.500 | 25.000 |
| DN 80 | 5.000 | 50.000 |



- 1 Meter 's body
- 2 Float
- 3 Magnet
- 4 Upper guide
- 5 Lower guide
- 8 Indicator 's cover
- 9 Indicating scale
- 10 Indicating point



| CLAMP | Flow rate (l/h) | |
|--------|-----------------|--------|
| | from | to |
| 1 1/2" | 100 | 1.000 |
| | 200 | 2.000 |
| 2" | 200 | 2.000 |
| | 300 | 3.000 |
| | 500 | 5.000 |
| 2 1/2" | 800 | 8.000 |
| | 2.000 | 16.000 |
| 3" | 2.500 | 25.000 |
| 4" | 5.000 | 50.000 |

SA 91/F

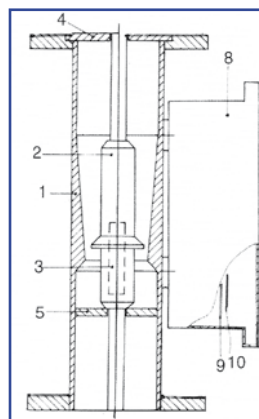


TYPE SA 91/F - flow meter with flange connection

- Measure range: 1 - 10
- Accuracy: $\pm 1\%$ of full scale
- Max operating temperature: 10 - 300 °C
- Scale length: 120 mm
- Material contact parts: AISI 316
- Material indicator case: AISI 304
- Degree of tightness: IP 55
- Connection: Flange PN 10 - PN 16 - UNI 2223
- Gaurantee for float meter´s body: Five years
- The instrument must stand vertical

| DIN | Flow rate (l/h) | |
|-------|-----------------|--------|
| | from | to |
| DN 25 | 100 | 1.000 |
| | 200 | 2.000 |
| DN 40 | 200 | 2.000 |
| | 300 | 3.000 |
| DN 50 | 500 | 5.000 |
| | 800 | 8.000 |
| DN 65 | 2.000 | 16.000 |
| | 2.500 | 25.000 |
| DN 80 | 5.000 | 50.000 |

- 1 Meter´s body
- 2 Float
- 3 Magnet
- 4 Upper guide
- 5 Lower guide
- 8 Indicator´s cover
- 9 Indicating scale
- 10 Indicating point

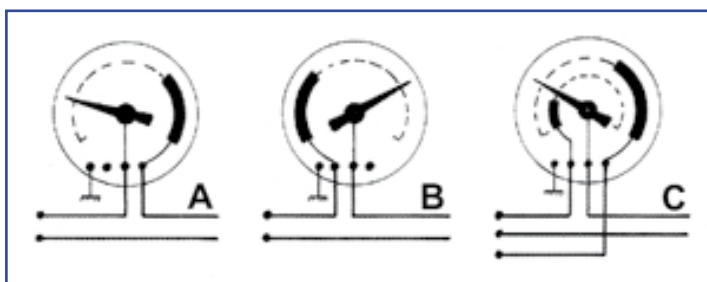


SA 91/C.E.



TYPE SA 91/C.E. - flow meter with electric contacts

- Electric contacts are assembled on the flow meter dial.
- They can be pressed on the whole scale by means of an adjustment knob on the front part of the flow meter.
- The electrical contacts have a small adjustable magnet which prevents the sparking of the electric arc and the resulting wear of the silver contact points.
- The operation is very simple: when the flow changes the flow meter´s hand moves gragging an auxiliary arm that operates the on-off electrical contacts at the preset value.
- Contact material: Silver-Nickel alloy (Ag 80 - Ni 20)
- Current: max. 1A
- Ambient temperature limits: -20 / +140 °C (Difference between switch point and set point due to attraction force of magnet (adjustable): 2-6%)
- Added indication error: 0,5 - 2 % u.s.v.
- Supply voltage: 24V max.



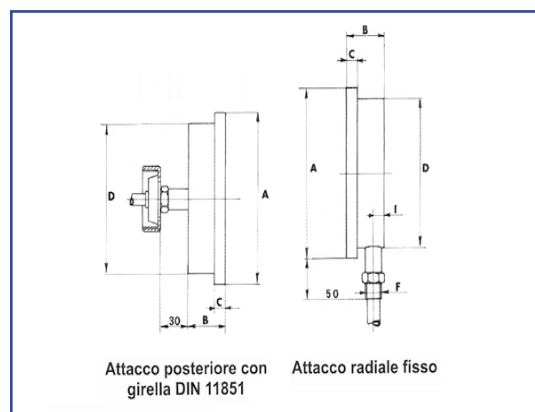
- electrical contacts of max. A
- electrical contacts of min. B
- 1 electrical contact of max, 1 of min. C

- The measurement of the temperature is one of the most important requirements in every industrial process.
- The temperature indicators with a mercury' expansion sensible element have been considered the most trustworthy instruments since many years, thanks to their high reliability, assembly simplicity and low maintenance expenses.
- The sensible bulbs usually have a removable protective cover though a hauling shaft.
- Each instrument can be supplied with minimum and maximum electrical contacts for control and alarm or with remote transmission electrical device.
- Our technicians' experience grants the high quality of our instruments which is confirmed by the numerous models spread over various industrial plants.
- Dial: LCD or white with black scale



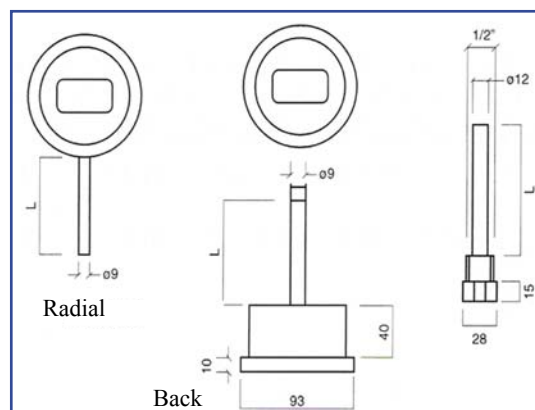
ELECTRONIC THERMOMETER LCD

- Measure range: -40 °C to +70 °C
- Resolution: 0,1 °C
- Connection: DIN 11851, SMS, CLAMP, G 1/2", IDF
- Accuracy: ± 0,4 °C
- Power supply: 2 button batteries AG 13 for high performance
- Material: AISI 316
- Degree of thickness: IP 55



ELECTRONIC THERMOMETER LCD - without back rotary connection

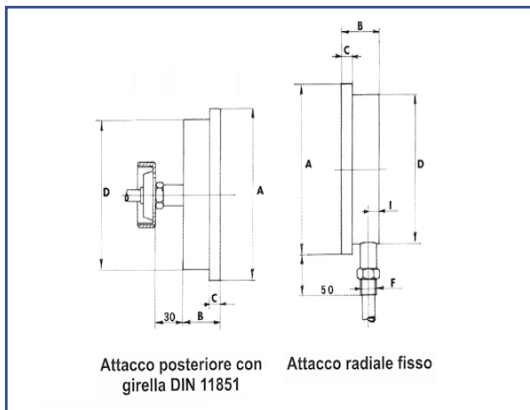
- Measure range: -40 °C to +70 °C
- Resolution: 0,1 °C
- Connection: back or radial
DIN 11851, SMS, CLAMP, G 1/2", IDF
- Power supply: 2 button batteries AG 13 for high performance
- Accuracy: ± 0,4 °C
- Material: AISI 316
- Degree of thickness: IP 55





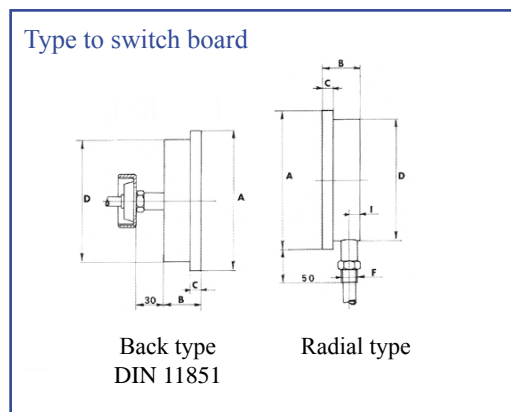
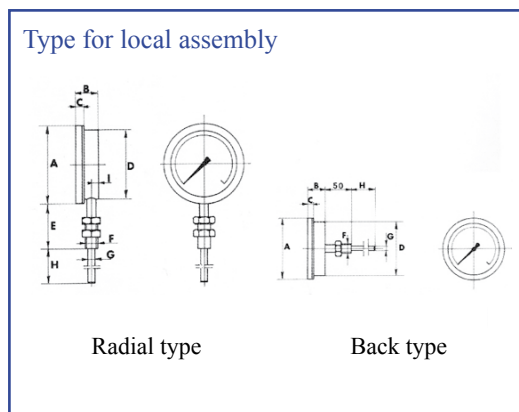
Bimetallic thermometer

- Measure range: -20 °C to +500 °C
- Dial: Ø 100 or 150 mm
- Connection: back, radial or with back rotary connection (see picture left)
DIN 11851, SMS, CLAMP, G 1/2", G 3/4"
- Length of the stem: 70 mm to 1 m
- Accuracy: 1% of max. range value
- Material: AISI 316
- On request: max., min., max + min electrical contacts for control and alarm



Nitrogen thermometer

- Measure range: -20 °C to +500 °C
- Dial: Ø 100 or 150 mm
- Connection: back or radial (see picture left)
DIN 11851, SMS, CLAMP, G 1/2", G 3/4"
- Accuracy: 1% of max. range value
- Material: AISI 316
- On request: max., min., max + min electrical contacts for control and alarm or with remote transmission electrical device.



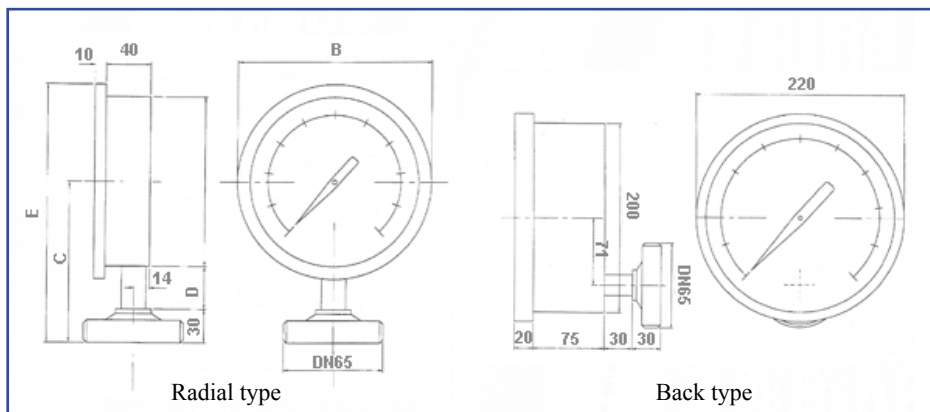
| Ø | A | B | C | D | E | F | G | H | I |
|-----|-----|----|----|-----|-----|----|----|---|----|
| 100 | 130 | 50 | 18 | 110 | 100 | G½ | 12 | * | 18 |
| 150 | 175 | 50 | 18 | 155 | 100 | G½ | 12 | * | 18 |

| Ø | A | B | C | D | E | F | G | H | I | L |
|-----|-----|----|----|-----|----|----|----|-----|-----|---|
| 100 | 130 | 50 | 18 | 110 | 25 | 21 | 40 | 125 | 112 | 6 |
| 150 | 175 | 50 | 18 | 155 | 25 | 21 | 45 | 170 | 157 | 6 |



Level indicator with diaphragm to be directly connected to the tank. Made in stainless steel.

- Dial: Ø 100, 150 or 200 mm
- Connection: for dial Ø 100 or 150 - radial, with diaphragm male part DN 65 for Ø 200 - back, with diaphragm male part DN 65
- Diaphragm: from stainless steel AISI 316, TIG welded
- Accuracy: 1% of max. range value
- It is suggested to install the level indicator at 300 mm from the bottom of the tank.

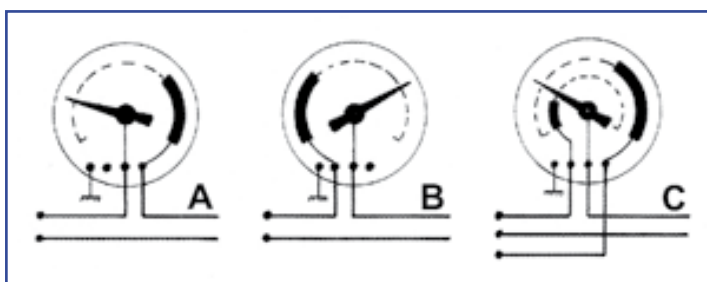


| Ø | A | B | C | D | E |
|-----|-----|-----|-----|----|-----|
| 100 | 100 | 125 | 105 | 15 | 167 |
| 150 | 150 | 175 | 145 | 28 | 232 |

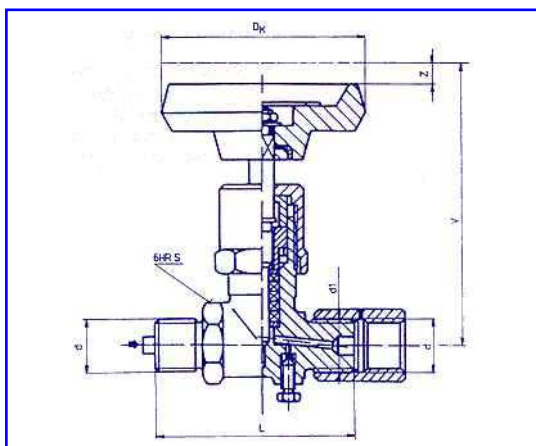


Level indicator with electric contacts

- The electrical contacts can be preset on the whole scale (270°) by means of an adjustment knob placed on the front part of the thermometer, in the centre of the glass.
- They have a small adjustable magnet which prevents the sparking of the electric arc and the resulting wear of the silver contact points.
- Accuracy: 1% of max. range value



- electrical contacts of max. A
- electrical contacts of min. B
- 1 electrical contact of max, 1 of min. C



AN 137517 A

Pressure gauge globe valve

Use:

- To connect pressure gauge with a flat sealing. The valve is not fit for regulation. It is made in four material designs.
- Suitability of the material design depending on working medium should be consulted with the manufacturer.

Technical description:

- The pressure gauge cock is a fitting used to close the working medium flow. The body is a forging. After the valve has been closed, the venting screw is used to discharge the working medium between the valve and the pressure gauge. If any untightness occurs in the course of the valve operation, the nut of the gland should be tightened or the gland sealing added or replaced. The sealing of the spindle is asbestos-free.

Material:

- For normal working fluids and certain aggressive substances the material design of the body and other parts is selected according to the table (after an agreement with the manufacturer). In other cases the manufacturer selects material according to working conditions (see ČSN 13 3060, sect. 19) and for steam boilers and other pressure devices in accordance with the relevant regulations. The material design is marked with a supplementary figure separated from the standard number.

- spindle: stainless steel or stainless austenitic steel
- sleeve connection: stainless steel or structural steel
- hand wheel: plastic material

Testing:

- The valve is tested in accordance with ČSN 13 3060 and ČSN 13 7501 or with DIN 3230, part 3.

Control:

- With a hand wheel.

Mounting:

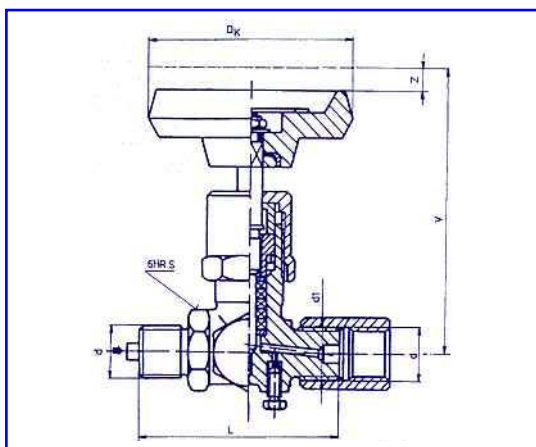
- The valve may be mounted in any position.

Connection:

- With the pin and sleeve connection.

| D | D1 | L | V | Z | S | DK | kg |
|---------|----------|----|-----|---|----|----|------|
| M20x1,5 | M20x1,5L | 80 | 100 | 4 | 27 | 80 | 0,64 |

| Working degree | Max. working temp. °C | Max. (bar) working overpressure | Material |
|----------------|-----------------------|---------------------------------|-------------------------|
| I | 200 | 250 | brass .5 |
| II | 300 | 630 | stainless steel .3 |
| VII | 500 | 630 | st. austenitic steel .4 |
| VIII | 525 | 630 | structural alloy st .2 |



AN 137517 B

Testing pressure gauge valve

Use:

- To connect the pressure gauge and the testing pressure gauge with a flat sealing. The valve is not fit for regulation. It is made in four material designs.
- Suitability of the material design depending on working medium should be consulted with the manufacturer.

Technical description:

- The pressure gauge cock is a fitting used to close the working medium flow. The body is a forging. After the valve has been closed, the venting screw is used to discharge the working medium between the valve and the pressure gauge. If any untightness occurs in the course of the valve operation, the nut of the gland should be tightened or the gland sealing added or replaced. The sealing of the spindle is asbestos-free.

Material:

- For normal working fluids and certain aggressive substances the material design of the body and other parts is selected according to the table (after an agreement with the manufacturer). In other cases the manufacturer selects material according to working conditions (see ČSN 13 3060, sect. 19) and for steam boilers and other pressure devices in accordance with the relevant regulations. The material design is marked with a supplementary figure separated from the standard number.

- spindle: stainless steel or stainless austenitic steel
- sleeve connection: stainless steel or structural steel
- hand wheel: plastic material

Testing:

- The valve is tested in accordance with ČSN 13 3060 and ČSN 13 7501 or with DIN 3230, part 3.

Control:

- With a hand wheel.

Mounting:

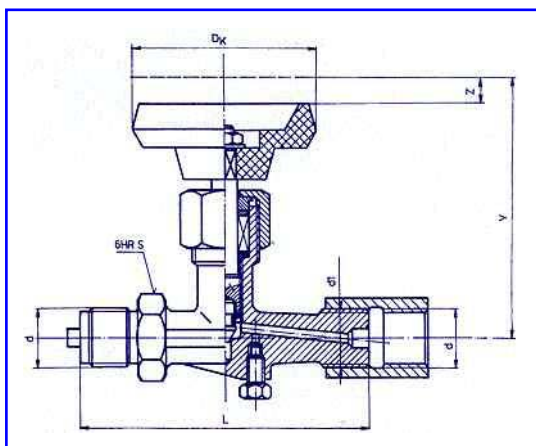
- The valve may be mounted in any position.

Connection:

- With the pin and sleeve connection.

| D | D1 | L | V | Z | S | DK | kg |
|---------|----------|----|-----|---|----|----|------|
| M20x1,5 | M20x1,5L | 80 | 100 | 4 | 27 | 80 | 0,73 |

| Working degree | Max. working temp. °C | Max. (bar) working overpressure | Material |
|----------------|-----------------------|---------------------------------|-------------------------|
| I | 200 | 250 | brass .5 |
| II | 300 | 630 | stainless steel .3 |
| VII | 500 | 630 | st. austenitic steel .4 |
| VIII | 525 | 630 | structural alloy st .2 |



DIN 16270

Pressure gauge globe valve PN 400 (PN 250)

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- The valve may also be used for other non-aggressive media, if consulted with and approved by the manufacturer.

Material:

- body: brass, possibly another material given in the table
- spindle: stainless steel
- sealing: asbestos-free medium
- hand-wheel: plastic material

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, only with water for tightness, or possibly DIN 3230, part 3.

Control:

- With a hand wheel.

Mounting:

- The valve may be mounted in any position.

Connection:

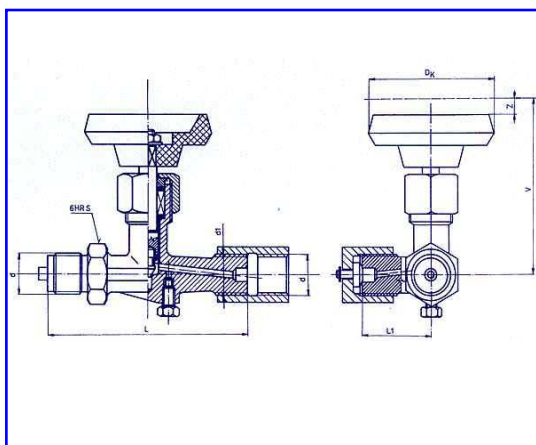
- With the pin and sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| d | d1 | L | V | Z | S | DK | kg |
|-------|---------|-----|----|---|----|----|-----|
| G 1/2 | G 1/2 L | 100 | 85 | 5 | 27 | 63 | 0,7 |

| Max. working temperature °C | Max. working overpressure (bar) | Material |
|-----------------------------|---------------------------------|--------------------------|
| 120 | 250 | brass |
| 120 | 400 | structural carbon steel |
| 120 | 400 | stainless st. austenitic |



DIN 16271

Testing pressure gauge valve PN 400 (PN 250)

Use:

- To connect the pressure gauges with a flat sealing. The valve is not fit for regulation. It is used for water, steam and air.
- The valve may also be used for other non-aggressive media, if consulted with and approved by the manufacturer.

Material:

- body: brass, possibly another material given in the table
- spindle: stainless steel
- sealing: asbestos-free medium
- hand-wheel: plastic material

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, only with water for tightness, or possibly DIN 3230, part 3.

Control:

- With a hand wheel.

Mounting:

- The valve may be mounted in any position.

Connection:

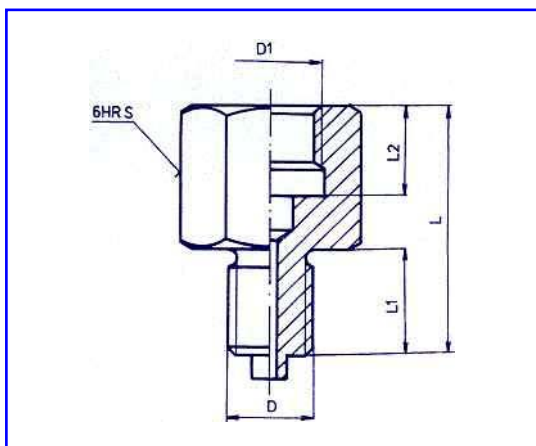
- With the pin and sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| d | d1 | L1 | L | V | Z | S | DK | kg |
|-------|---------|----|-----|----|---|----|----|------|
| G 1/2 | G 1/2 L | 35 | 100 | 85 | 5 | 27 | 63 | 0,38 |

| Max. working temperature °C | Max. working overpressure (bar) | Material |
|-----------------------------|---------------------------------|--------------------------|
| 120 | 250 | brass |
| 120 | 400 | structural carbon steel |
| 120 | 400 | stainless st. austenitic |



AN 137524, type E

Reducing pressure gauge connection

Use:

- It is used for connection of pressure gauge fittings to pressure gauge devices up to the pressure 630 bar. Use for: air, water, water steam and acid-free oils. Certain aggressive substances if approved by the manufacturer.
- Suitability of the material design depending on working medium should be consulted with the manufacturer.

Material:

- For normal working media and certain aggressive substances the material design of the body and other parts is selected according to the table. In other cases the manufacturer selects material according to working conditions (see ČSN 13 3060, sect. 19) and for steam boilers and other pressure devices in accordance with the relevant regulations. The material design is marked with a supplementary figure separated from the standard number.

Testing:

- Testing in accordance with ČSN 13 3060 or possibly DIN 3230.

Connection:

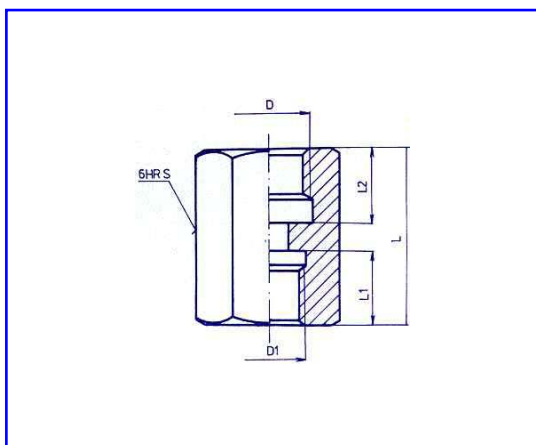
- The connecting and construction dimensions are given in the table.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | L | L1 | L2 | S | kg |
|-----------|------------|----|----|----|----|------|
| G 1/2 | M20 x 1,5L | 40 | 18 | 19 | 27 | 0,09 |
| G 1/2 | M20 x 1,5 | 40 | 18 | 19 | 27 | 0,09 |
| M20 x 1,5 | M12 x 1,5 | 40 | 18 | 12 | 27 | 0,1 |
| M20 x 1,5 | G 1/4 | 40 | 18 | 12 | 27 | 0,1 |
| M20 x 1,5 | G 1/2 | 40 | 18 | 19 | 27 | 0,09 |

| Working degree | Max. working temp. °C | Max. work overpressure (bar) | Material |
|----------------|-----------------------|------------------------------|------------------------------------|
| I | 200 | 630 | structural carbon steel (brown) .1 |
| II | 300 | 500 | stainless steel .3 |



AN 137524, type F

Reducing pressure gauge connection

Use:

- It is used for connection of pressure gauge fittings to pressure gauge devices up to the pressure 630 bar. Use for: air, water, water steam and acid-free oils. Certain aggressive substances if approved by the manufacturer.

Material:

- For normal working media and certain aggressive substances the material design of the body and other parts is selected according to the table. In other cases the manufacturer selects material according to working conditions (see ČSN 13 3060, sect. 19) and for steam boilers and other pressure devices in accordance with the relevant regulations. The material design is marked with a supplementary figure separated from the standard number.

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3.

Connection:

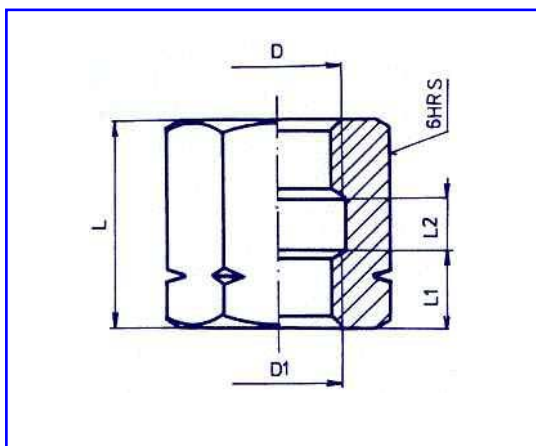
- The connecting and construction dimensions are given in the table.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | L | L1 | L2 | S | kg |
|-----------|-------|----|----|----|----|-----|
| M20 x 1,5 | G 1/2 | 40 | 16 | 19 | 27 | 0,1 |

| Working degree | Max. working temp. °C | Max. work overpressure (bar) | Material |
|----------------|-----------------------|------------------------------|------------------------------------|
| I | 200 | 630 | structural carbon steel (brown) .1 |
| II | 300 | 500 | stainless steel .3 |



AN 137524, type G

Reducing pressure gauge connection

Use:

- It is used for connection of pressure gauge fittings to pressure gauge devices up to the pressure 63 MPa. Use for: air, water, water steam and acid-free oils. Certain aggressive substances if approved by the manufacturer.

Material:

- For normal working media and certain aggressive substances the material design of the body and other parts is selected according to the table. In other cases the manufacturer selects material according to working conditions (see ČSN 13 3060, sect. 19) and for steam boilers and other pressure devices in accordance with the relevant regulations. The material design is marked with a supplementary figure separated from the standard number.

Testing:

- Testing in accordance with ČSN 13 3060 or possibly DIN 3230.

Connection:

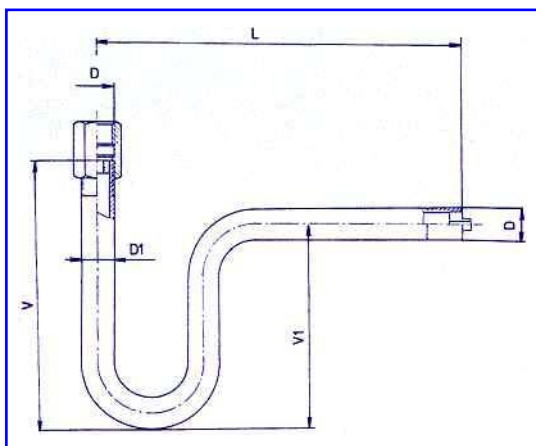
- The connecting and construction dimensions are given in the table.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | L | L1 | L2 | S | kg |
|-------|-----------|----|------|----|----|------|
| G 1/2 | M20 x 1,5 | 30 | 15 | 6 | 27 | 0,07 |
| G 1/2 | M20 x 1,5 | 36 | 15,5 | 5 | 27 | 0,08 |

| Working degree | Max. working temp. °C | Max. work overpressure (bar) | Material |
|----------------|-----------------------|------------------------------|------------------------------------|
| I | 200 | 630 | structural carbon steel (brown) .1 |
| II | 300 | 500 | stainless steel .3 |



| D | D1 | L | V | V1 | kg |
|-----------|----|-----|-----|-----|------|
| M20 x 1,5 | 20 | 225 | 170 | 130 | 0,57 |

AN 13 7530, type A

Condensation gooseneck loop with pin

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature: 300 °C
- Pressure: 250 bar
- Material: structural carbon steel
stainless steel

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3, only with water for tightness.

Mounting:

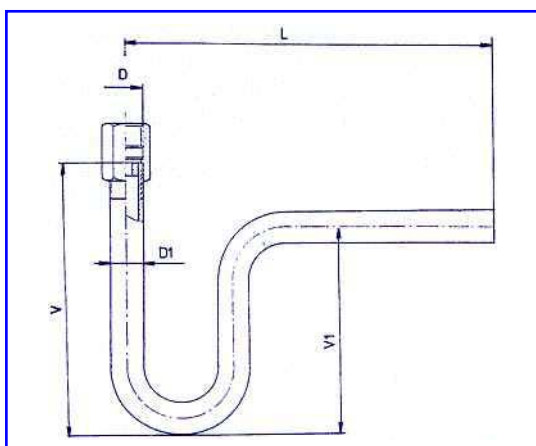
- Loops are mounted vertically, the output side facing upwards.

Connection:

- On the inlet side with a pin having metric thread with fine load according to ČSN 01 4013, on the outlet side with a sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]



| D | D1 | L | V | V1 | kg |
|-----------|----|-----|-----|-----|------|
| M20 x 1,5 | 20 | 225 | 170 | 130 | 0,57 |

AN 13 7530, type B

Welding condensation gooseneck loop

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature: 300 °C
- Pressure: 250 bar
- Material: structural carbon steel
stainless steel

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3, only with water for tightness.

Mounting:

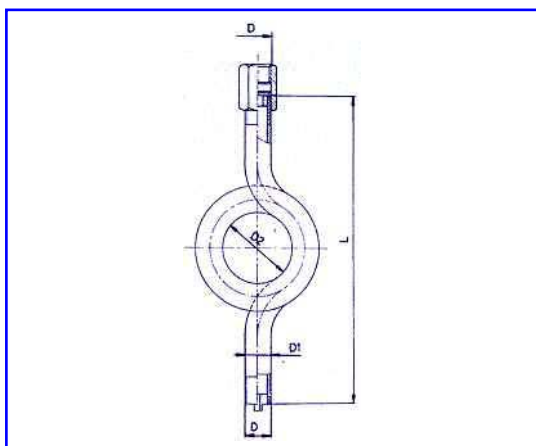
- Loops are mounted vertically, the output side facing upwards.

Connection:

- On the inlet side welded, on the outlet side with a sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]



AN 13 7530, type C Coiled condensation loop with pin

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature: 300 °C
- Pressure: 250 bar
- Material: structural carbon steel
stainless steel

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3, only with water for tightness.

Mounting:

- Loops are mounted vertically, the output side facing upwards.

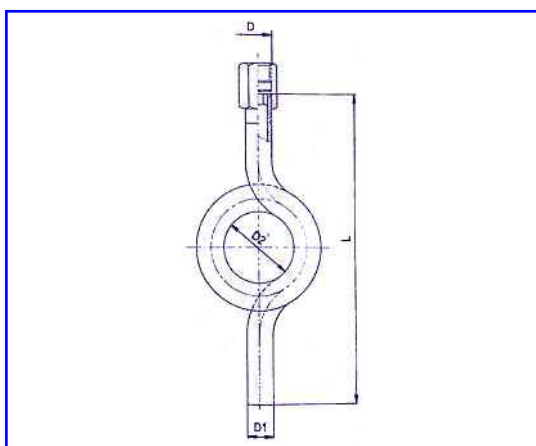
Connection:

- On the inlet side with a pin having metric thread with fine load according to ČSN 01 4013, on the outlet side with a sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | D2 | L | kg |
|-----------|----|----|-----|------|
| M20 x 1,5 | 20 | 56 | 240 | 0,62 |



AN 13 7530, type D Coiled welding condensation loop

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature: 300 °C
- Pressure: 250 bar
- Material: structural carbon steel
stainless steel

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3, only with water for tightness.

Mounting:

- Loops are mounted vertically, the output side facing upwards.

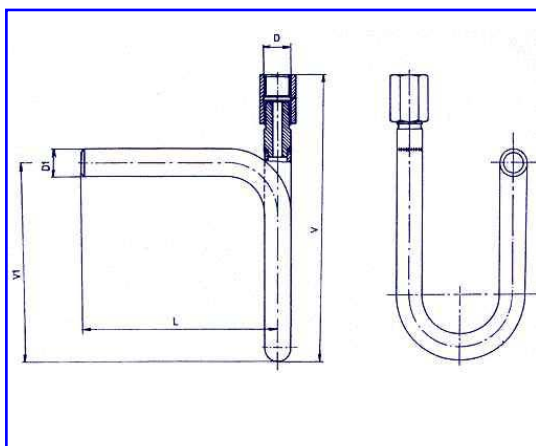
Connection:

- On the inlet side welded, on the outlet side with a sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | D2 | L | kg |
|-----------|----|----|-----|------|
| M20 x 1,5 | 20 | 56 | 240 | 0,62 |



| D | D1 | L | V | V1 | kg |
|-------|----|-----|-----|-----|------|
| G 1/2 | 20 | 145 | 200 | 155 | 0,65 |

DIN 16282, type B

Condensation loop for horizontal take-of (form U)

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature / pressure: 120 °C 100 bar
300 °C 80 bar
400 °C 63 bar

- Material: structural carbon steel
stainless steel austenitic

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3, only with water for tightness.

Mounting:

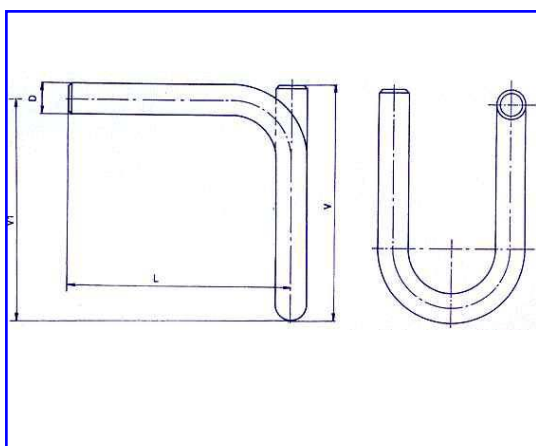
- Loops are mounted vertically, the output side facing upwards.

Connection:

- On the inlet side welded, on the outlet side with a sleeve connection.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]



| D | L | V | V1 | kg |
|----|-----|-----|-----|-----|
| 20 | 145 | 165 | 144 | 0,6 |

DIN 16282, type F

Condensation loop for horizontal take-of (form U)

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature / pressure: 120 °C 100 bar
300 °C 80 bar
400 °C 63 bar

- Material: structural carbon steel
stainless steel austenitic

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, or with DIN 3230, part 3, only with water for tightness.

Mounting:

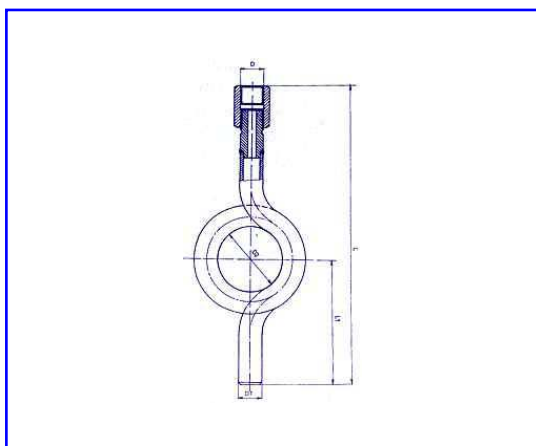
- Loops are mounted vertically, the output side facing upwards.

Connection:

- On the inlet as well as outlet sides welded.

Data necessary to place an order:

- nominal pressure (PN)
- working pressure
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]



DIN 16282, type D

Condensate loop for vertical take-off (coiled)

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature / pressure: 120 °C 100 bar
300 °C 80 bar
400 °C 63 bar

- Material: structural carbon steel
stainless steel austenitic

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, only with water for tightness, or possibly DIN 3230, part 3.

Mounting:

- Loops are mounted vertically, the output side facing upwards.

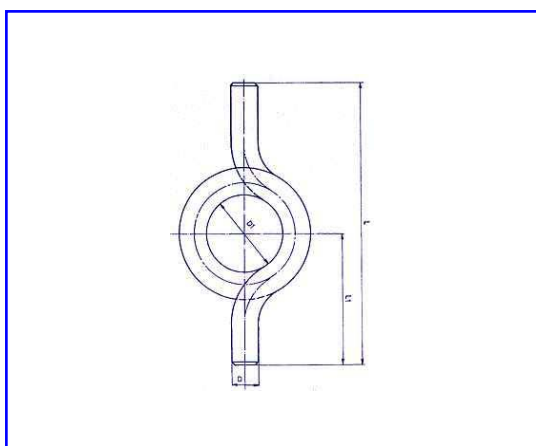
Connection:

- On the inlet side welded, on the outlet side with a sleeve connection.

Data necessary to place an order

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | D2 | L | L1 | kg |
|-------|----|----|-----|-----|-----|
| G 1/2 | 20 | 56 | 240 | 110 | 062 |



DIN 16282, type G

Condensation loop for vertical take-off (coiled)

Use:

- To connect and protect pressure gauges against harmful effects of high temperature of the working medium measured.
- Suitability of the material design depending on working medium must be consulted with the manufacturer. If the operation is interrupted in winter months, the loop must be discharged or filled with non-freezing liquid.

- Temperature / pressure: 120 °C 100 bar
300 °C 80 bar
400 °C 63 bar

- Material: structural carbon steel
stainless steel austenitic

Testing:

- The valve is tested in accordance with ČSN 13 3060, part 2, only with water for tightness, or possibly DIN 3230, part 3.

Mounting:

- Loops are mounted vertically, the output side facing upwards.

Connection:

- Welded on the inlet as well as outlet side.

Data necessary to place an order:

- nominal pressure (PN)
- working medium
- actual max. working temperature of medium [°C]
- actual max. working overpressure [bar]

| D | D1 | L | L1 | kg |
|----|----|-----|-----|------|
| 20 | 56 | 205 | 110 | 0,57 |