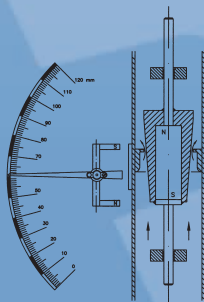




Metal Tube Variable Area Flowmeters for Gases, Liquids and Steam

- Metallic construction, optional in plastic
- Indication by magnetic coupling
- Linear scales, calibrated in l/h, m³/h, kg/h, t/h, %, etc.
- Sizes DN 15 to DN 150
- Flow rate:
 - Water: 2.5 l/h up to 180 m³/h
 - Air: 0.07 Nm³/h up to 5400 Nm³/h
- Low pressure drop
- Standard construction: EN 1.4404 (SS 316L), PVC, PP, PTFE
- Local indication
- Options:
 - 1 or 2 limit switches
 - Electric transmitter with 4-20 mA analog output for safe area or for hazardous area with protection EEx ia IIC T4/T6 (ATEX)
 - Local or remote volume totalizer
 - Pneumatic transmitter 3-15 psi (0.2-1 bar)
- Connections:
 - Flanges DN 15 to DN 150 standard in stainless steel EN 1.4404 (SS 316L)
 - On request, flanges to ANSI, JIS
 - Screwed connections BSP or NPT
 - Sanitary connections to DIN 11851, CLAMP ISO 2852, SMS 1145
- Total length DIN 2501 flanges:
 - DN 15...DN 125: 250 mm
 - DN 150: 300 mm



SC-250 Flowmeter

The SC-250 is a variable area flowmeter using totally automated construction and standard pieces, that provides a high precision in flow rate measurements.

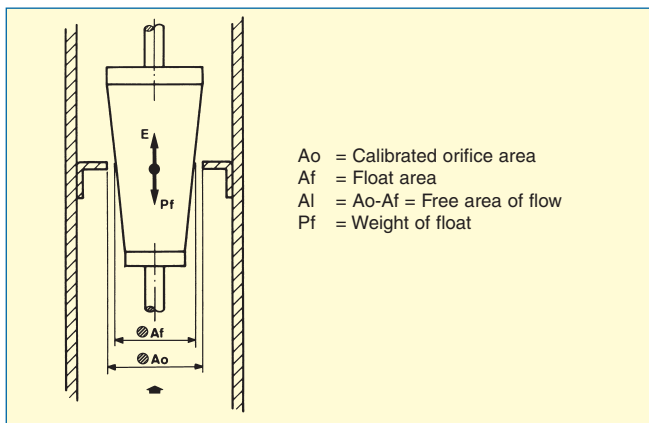
The precision is $\pm 2.5\%$ or $\pm 1.6\%$ according to VDI / VDE 3513, Sheet 2.

Operation

The metering system is made up of a calibrated orifice and a conical float. The force from the fluid, as it flows from the bottom to the top, displaces the float until it reaches an equilibrium point that is a function of:

- The weight of the float: Pf
- The force of the fluid flow: E
- The free area of flow: Al

Each float position represents a different equilibrium which has a corresponding flow rate.



Ao = Calibrated orifice area
 Af = Float area
 Al = Ao - Af = Free area of flow
 Pf = Weight of float

Applications

The SC-250 flowmeters are built in metal with a very robust construction. They are designed to provide a high performance measurement in extreme working conditions. They provide a high resistance to temperature, pressure and corrosion with the use of materials such as EN 1.4404 (SS 316L), Hastelloy, Titanium, PVC, PP, PTFE.

These instruments are suitable in all kinds of industries, especially:

- Water treatment
- Pharmaceutical industry
- Power plants
- Nuclear generating plant
- Chemical and petrochemical industry
- Pulp & Paper industry
- Food industry
- Heating and cooling circuits
- Saturated steam circuits
- Oven treatments
- Control of gas burns, etc.

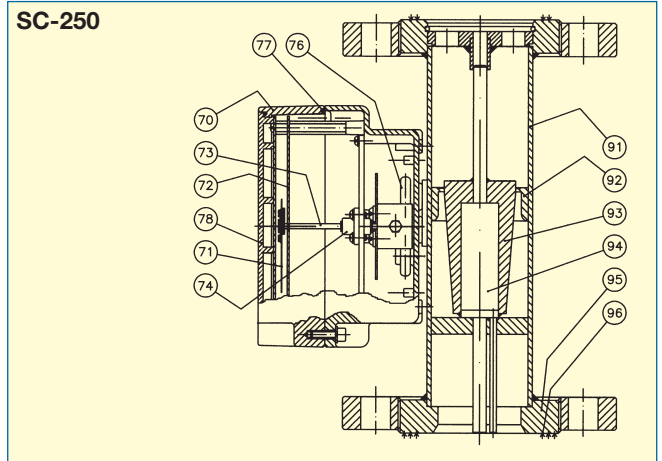
Technical Data

- Precision according to VDI / VDE 3513, Sheet 2.
 - SC-250** (max. 10 mPas)
 - Standard: $\pm 2.5\%$ of FSD
 - On demand: $\pm 1.6\%$ of FSD
 - SM-250** (max. 10000 mPas)
 - Standard: $\pm 1.6\%$ of FSD
 - Scales:
 - Direct in engineering units or in %
 - Length: 120 mm (reading length max. 100 mm)
 - Scale range: 10:1
 - Temperature of fluid:
 - Standard: -50°C to +200°C EN 1.4404 (SS 316L)
 - 20°C to +150°C PTFE
 - 0°C to +50°C PVC -5 to +90° C PP
 - With thermal separator: refer to page 9
 - Ambient temperature:
 - 20°C to +80°C SS 316L, PTFE
 - 0°C to +45°C PVC
 - 5°C to +80°C PP
 - Working pressure:
 - SC-250/INOX (EN 1.4404 - SS 316L)
 - PN 40 DN 15...DN 50
 - PN 16 DN 65...DN 150
 - (others on request)
 - SC-250/PVC T/PP T (Fully PVC / Fully PP)
 - PN 16 DN 15...DN 125
 - PN 10 DN 150
 - SC-250/PVC/PP/PTFE (EN 1.4404 - SS 316L + PVC/PP/PTFE)
 - PN 40 DN 15..DN 40
 - PN 16 DN 50..DN 125
 - PN 10 DN 150
 - (others on request)
 - Mounting Length:
 - SC-250 INOX/PTFE/PVC/PP
 - DN 15...DN 125: 250 mm
 - DN 150: 300 mm

The mounting length is the same for the flowmeters with damping system to measure flow rates of steam or gases.
 - Indicator housing:
 - Standard: IP65 - polyamide coated aluminium
 - On demand: IP65 - polypropylene, IP67 - EN 1.4404 (SS 316L)
- ### Limit switches and transmitters
- .../AMM1...2 1 or 2 adjustable micro-switches
 - .../AMD1...2 1 or 2 adjustable inductive detectors (+relays on order)
 - TH32...TH34 4-20 mA transmitter 2 or 4 wire
 - TH32Ex 4-20 mA transmitter 2 wire EEx ia IIC T4 (ATEX)
 - THT32...THT34 Transmitter + Totalizer 2 or 4 wire
 - THT32Ex Transmitter + Totalizer 2 wire EEx ia IIC T4 (ATEX)
 - TKEx 0...4-20 mA Transmitter 2, 4 wire EEx ia IIC T6 (ATEX)
 - TP1200 Pneumatic Transmitter 3-15 psi (0.2-1 bar)

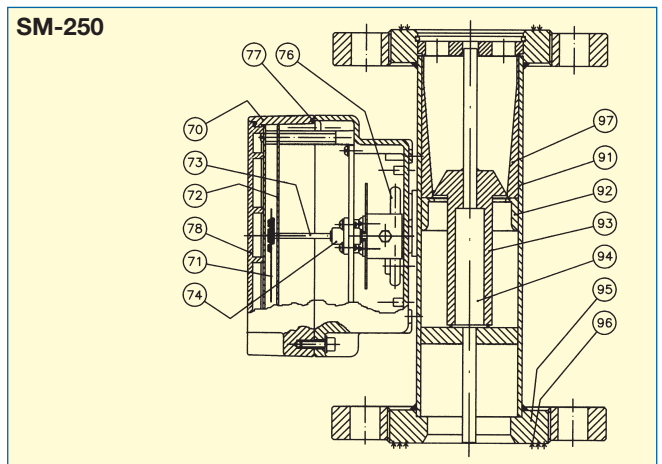
SC-250 & SM-250 Indicator Box Materials

| Item | Description | Materials |
|------|-------------------|----------------------------|
| 70 | Indicator Box | Polyamide |
| 71 | Indicating needle | Coated Aluminium |
| 72 | Scale plate | Aluminium |
| 73 | Shaft | EN 1.4404 (SS 316L) |
| 74 | Ball Bearing | EN 1.4404 (SS 316L) |
| 76 | Magnetic Coupling | Alnico |
| 77 | O-ring | Nitrile Rubber |
| 78 | Window | Polycarbonate (UV treated) |



SC-250 & SM-250 Flow Tube Materials

| Item | Description | EN 1.4404 | Materials | |
|------|--------------------|-----------|-----------|-----------|
| | | | PVC/PP | PTFE |
| 91 | Flow Tube | EN 1.4404 | PVC/PP | PTFE/SS |
| 92 | Calibrated Orifice | EN 1.4404 | PVC/PP | PTFE |
| 93 | Float | EN 1.4404 | PVC/PP | PTFE |
| 94 | Magnet | ----- | Alnico | ----- |
| 95 | Flanges | Steel/SS | PVC/PP | EN 1.4404 |
| 96 | Flange Seat | EN 1.4404 | PVC/PP | PTFE |
| 97 | Tapered Tube | EN 1.4404 | PVC/PP | PTFE |

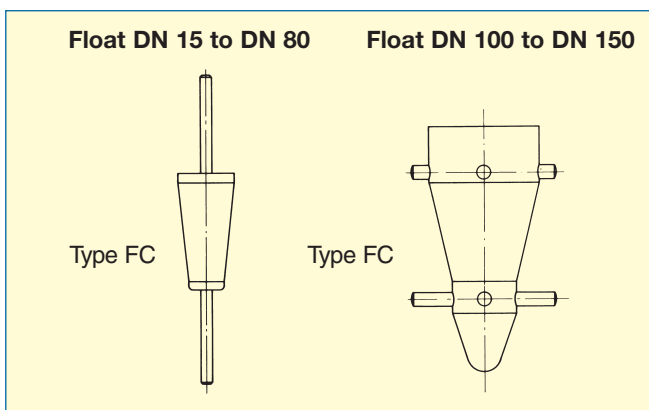


The tapered FC floats and the constant section T, V & TX floats are constructed in SS 316L, PVC, PP & PTFE as standard or other materials, according to the characteristics of the fluid to be metered.

The maximum working viscosity for the FC floats of the SC 250 flowmeters is 10 mPas.

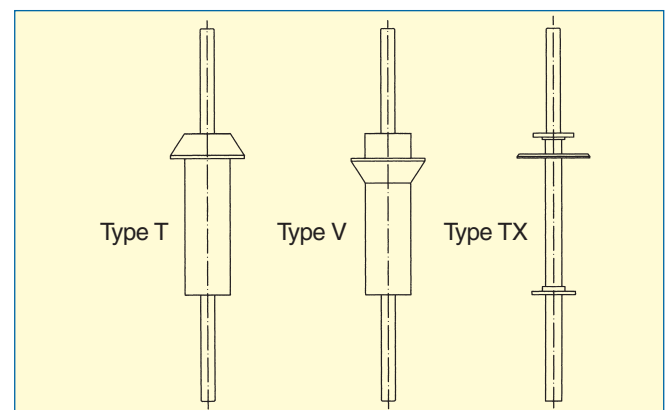
The maximum working viscosity for the T floats of the SM 250 flowmeters is 10000 mPas.

SC-250 Series Floats



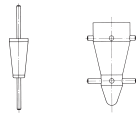
- Maximum liquid viscosity 10 mPas

SM-250 Series Floats



- Maximum liquid viscosity 10000 mPas (Type T)

Standard Scales SC-250



FC Floats

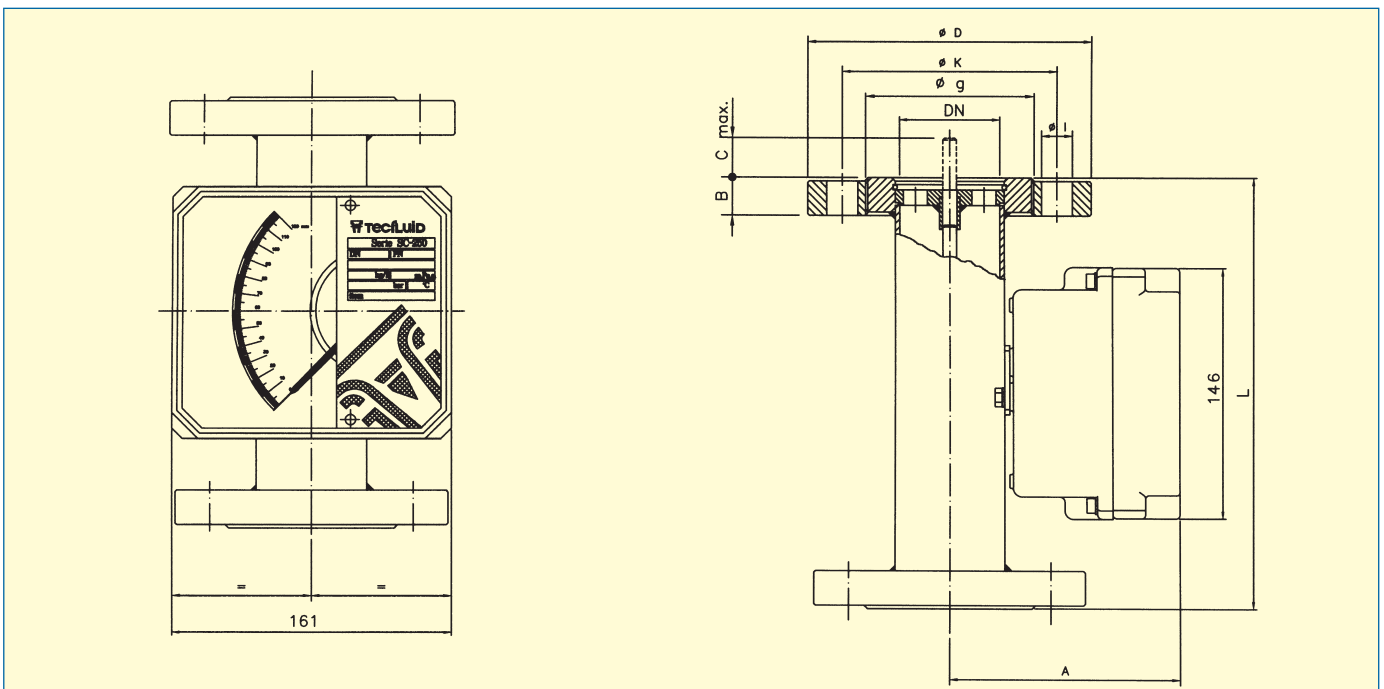
| DIN Flanges DN | ANSI* Flanges | Float N° | EN 1.4404 (SS 316L) Float (7.95 g/cm ³) | | | PVC Floats for gases | | | |
|----------------|---------------|----------|---|------------------------|------------------------|----------------------|------------------------|------------------------|------------------------|
| | | | l/h Water | Nm ³ /h Air | ΔP mm H ₂ O | l/h Water | ΔP mm H ₂ O | Nm ³ /h Air | ΔP mm H ₂ O |
| | | | 20° C 1.013 bar abs | | | 20° C 1.013 bar abs | | | |
| 15 | 1/2" | 15025 | 2.5-25 | 0.07-0.7 | 400 | 2.5-25 | 176 | 0.1-1 | 309 |
| | | 15040 | 4-40 | 0.12-1.2 | 400 | 6-60 | 150 | 0.2-2 | 240 |
| | | 15060 | 6-60 | 0.18-1.8 | 400 | 10-100 | 150 | 0.4-4 | 240 |
| | | 15100 | 10-100 | 0.3-3 | 400 | 16-160 | 150 | 0.6-6 | 240 |
| | | 15160 | 16-160 | 0.5-5 | 500 | 25-250 | 150 | 1-10 | 240 |
| | | 15250 | 25-250 | 0.7-7.5 | 500 | 40-400 | 150 | 1.6-16 | 240 |
| | | 15600 | 60-600 | 1.8-18 | 500 | 60-600 | 150 | 2-20 | 240 |
| 25 | 1 1/4" ** | 25100 | 100-1000 | 3-30 | 600 | 16-160 | 80 | 0.6-6 | 180 |
| | | 25160 | 160-1600 | 5-50 | 700 | 25-250 | 80 | 1-10 | 180 |
| | | 25250 | 250-2500 | 7-75 | 900 | 40-400 | 80 | 1.6-16 | 180 |
| | | 25400 | 400-4000 | 12-120 | 1100 | 60-600 | 80 | 2.5-25 | 180 |
| | | 25101 | | | | 100-1000 | 80 | 4-40 | 180 |
| | | 25161 | | | | 160-1600 | 80 | 6-60 | 180 |
| | | 25251 | | | | 240-2400 | 80 | 9-96 | 180 |
| 40 | 1 1/2" | 40400 | 400-4000 | 12-120 | 450 | 150-1500 | 180 | 5-50 | 260 |
| | | 40600 | 500-6300 | 15-180 | 550 | 250-2500 | 180 | 8-80 | 260 |
| | | 40800 | 800-8000 | 24-240 | 900 | 400-4000 | 180 | 14-140 | 260 |
| 50 | 2" | 50800 | 800-8000 | 24-240 | 700 | 250-2500 | 150 | 9-90 | 220 |
| | | 50100 | 1000-10000 | 30-300 | 900 | 400-4000 | 150 | 15-150 | 220 |
| | | 50150 | 1500-15000 | 45-450 | 1000 | 600-6000 | 150 | 20-200 | 220 |
| | | 50101 | 1000-10000 | 150 | 35-350 | 220 | | | |
| 65 | 2 1/2" | 65150 | 1500-15000 | 45-450 | 700 | 800-8000 | 150 | 25-250 | 220 |
| | | 65200 | 2000-20000 | 60-600 | 1000 | 1000-10000 | 150 | 40-400 | 220 |
| 80 | 3" | 80020 | 2000-20000 | 60-600 | 800 | 1000-10000 | 160 | 40-400 | 230 |
| | | 80025 | 2500-25000 | 75-750 | 1000 | 1600-16000 | 160 | 60-600 | 230 |
| | | 80030 | 3000-30000 | 90-900 | 1200 | | | | |
| 100 | 4" | 81040 | 4000-40000 | 120-1200 | 1000 | 1600-16000 | 170 | 60-600 | 240 |
| | | 81050 | 5000-50000 | 150-1500 | 1200 | 2000-20000 | 170 | 100-1000 | 240 |
| | | 81060 | 6000-60000 | 180-1800 | 1500 | | | | |
| 125 | 5" | 82080 | 8000-80000 | 240-2400 | 1200 | 3000-30000 | 180 | 150-1500 | 280 |
| | | 82100 | 10000-100000 | 300-3000 | 1500 | 4000-40000 | 180 | 200-2000 | 280 |
| | | 82120 | 12000-120000 | 360-3600 | 1800 | 6000-60000 | | 220-2200 | |
| 150 | 6" | 83150 | 15000-150000 | 450-4500 | 2200 | 8000-80000 | 230 | 250-2600 | 320 |
| | | 83180 | 18000-180000 | 500-5400 | 2200 | 10000-100000 | 230 | 300-3200 | 320 |

* For SC-250 INOX (SS 316L) and from 150# to 2500#

** 1" on demand

Dimensions for SC-250 & SM-250 Series with DIN Flanges

| DN DIN 2501 | PN | D | k | g | lxn° | B | A | | C | | L | Weight kg |
|-------------------|----|-----|-----|-----|------|----|-----|-----|----|----|-----|--------------|
| | | | | | | | SC | SM | SC | SM | | |
| 15 | 40 | 95 | 65 | 45 | 14x4 | 14 | 133 | 146 | 45 | 45 | 250 | 3.5 |
| 25 | 40 | 115 | 85 | 68 | 14x4 | 16 | 146 | 154 | 45 | 45 | 250 | 4.5 |
| 40 | 40 | 150 | 110 | 88 | 18x4 | 16 | 154 | 167 | 45 | 45 | 250 | 7.3 |
| 50 | 40 | 165 | 125 | 102 | 18x4 | 18 | 167 | 176 | 45 | 45 | 250 | 8.3 |
| 65 | 16 | 185 | 145 | 122 | 18x4 | 18 | 176 | 192 | 45 | 45 | 250 | 10 |
| 80 | 16 | 200 | 160 | 138 | 18x8 | 20 | 192 | 211 | 45 | 45 | 250 | 12 |
| 100 | 16 | 220 | 180 | 158 | 18x8 | 20 | 211 | - | - | - | 250 | 15 |
| 125 | 16 | 250 | 210 | 188 | 18x8 | 22 | 236 | - | - | - | 250 | 20 |
| 150 | 16 | 285 | 240 | 212 | 23x8 | 22 | 262 | - | - | - | 300 | 32 |



Dimensions for SC-250 & SM-250 Series with ANSI Flanges

| Size | Pressure class lbs | D | k | g | lxn° | B | A | | C | | L | Weight kg |
|--------|--------------------------|-------|-------|-------|---------|------|-----|-----|----|----|-----|--------------|
| | | | | | | | SC | SM | SC | SM | | |
| 1/2" | 150 | 88.9 | 60.3 | 34.9 | 15.90x4 | 11.1 | 133 | 146 | 45 | 45 | 250 | 3.5 |
| 3/4" | 150 | 98.4 | 69.8 | 42.9 | 15.90x4 | 12.7 | 146 | 154 | 45 | 45 | 250 | 4.5 |
| 1" | 150 | 107.9 | 79.4 | 50.8 | 15.90x4 | 14.3 | 154 | 167 | 45 | 45 | 250 | 7.3 |
| 1 1/4" | 150 | 117.5 | 88.9 | 63.5 | 15.90x4 | 15.9 | 167 | 176 | 45 | 45 | 250 | 8.3 |
| 1 1/2" | 150 | 127.0 | 98.4 | 73.0 | 15.90x4 | 17.5 | 176 | 192 | 45 | 45 | 250 | 10 |
| 2" | 150 | 152.4 | 120.6 | 92.1 | 19.05x4 | 19.1 | 192 | 211 | 45 | 45 | 250 | 12 |
| 2 1/2" | 150 | 177.8 | 139.7 | 104.8 | 19.05x4 | 22.2 | 211 | - | - | - | 250 | 15 |
| 3" | 150 | 190.5 | 152.4 | 127.0 | 19.05x4 | 23.8 | 236 | - | - | - | 250 | 20 |
| 4" | 150 | 228.6 | 190.5 | 157.2 | 19.05x8 | 23.8 | 262 | - | - | - | 300 | 32 |
| 5" | 150 | 254.0 | 215.9 | 185.7 | 22.20x8 | 23.8 | 236 | - | - | - | 250 | 20 |
| 6" | 150 | 279.4 | 241.3 | 215.9 | 22.20x8 | 25.4 | 262 | - | - | - | 300 | 32 |

Limit Switches and Transmitter Options

Adjustable limit switch SC-AMM...SM-AMM

Electrical micro-switch mounted in the indicator housing.

- SC/SM-AMM1: 1 adjustable limit switch
- SC/SM-AMM2: 2 adjustable limit switches
- Ratings: 3(1) A, 250 V (VDE/CEE)
- Hysteresis: $\pm 10\%$ of full scale value
- Ambient temperature: -25°C to $+80^{\circ}\text{C}$
- Mechanical life: 10^7 Operations

Gold plated contacts on order.

Adjustable limit switch SC-AMD...SM-AMD

NAMUR (DIN19234) 3.5 mm slot type inductive detector activated by vane, mounted in the indicator housing.

- SC-AMD/SM-AMD1...2: 1...2 bi-stable limit switches
- Detector power supply: 8 V dc
- Ambient temperature: -25°C to $+70^{\circ}\text{C}$

Control Relay (on demand)

NAMUR (DIN19234) for 1 or 2 inductive detectors.

- Power supply: 24...230 V ac 50-60 Hz
24...250 V dc
- Input: NAMUR EEx ia IIC
- Output: 1 or 2 inductive detectors
- Output Rating: 2...5 A / 40 V dc
- Ambient temperature: -25°C to $+70^{\circ}\text{C}$

Electric transmitter SC-TKEx...SM-TKEx

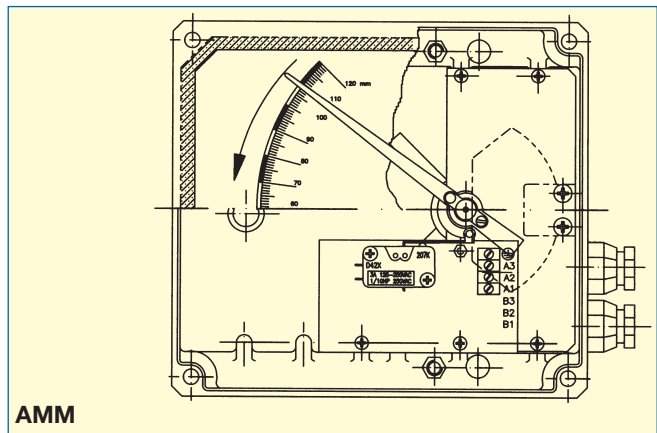
The TKEx electric transmitter is an angular position converter coupled to the indicating system of the flowmeter and uses a 2 wire connection. It gives a linear output of 4-20 mA proportional to the flow rate. It is intrinsic safety ATEX certified to EEx ia IIC T6.

- Power supply: 12...30 V dc
- Output signal: 4-20 mA
- Electrical connection: 2 wire
- Short circuit current: <160 mA
- Internal Inductance: $L_i=0$
- Internal Capacitance: $C_i \leq 10$ nF
- Ambient Temperature: -20°C to $+40^{\circ}\text{C}$

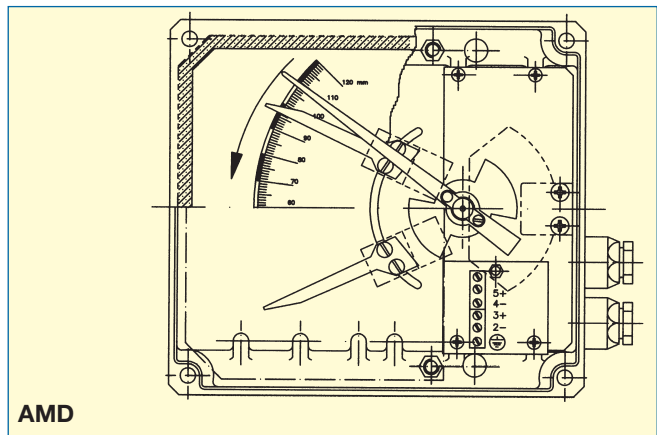
Pneumatic Transmitter SC-TP1200...SM-TP1200

The TP1200 pneumatic transmitter gives a 3-15 psi or 0.2-1 bar, proportional to the flow rate.

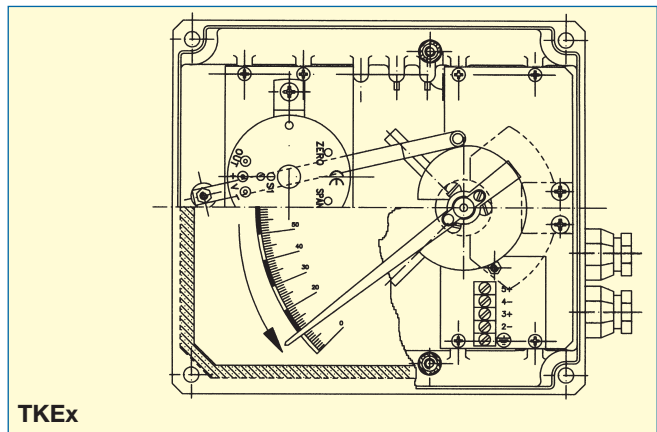
- Air supply: 1.4 bar \pm 0.1 bar
- Air consumption: 460 NI/h
- Output signal: 3-15 psi (0.2-1 bar)
- Linearity: $\pm 0.4\%$
- Hysteresis: $\pm 0.25\%$
- Ambient temperature: $-10...+70^{\circ}\text{C}$



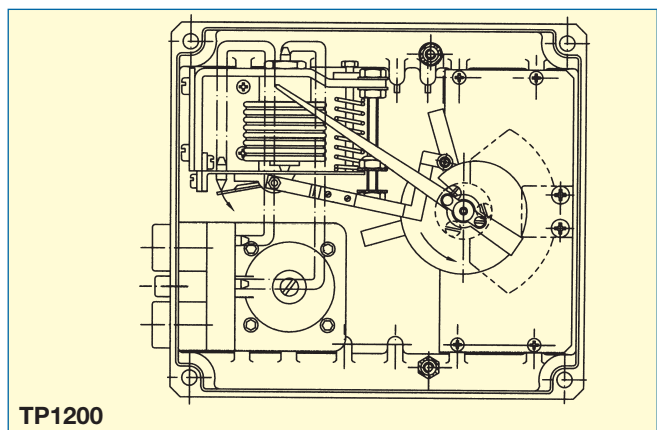
AMM



AMD



TKEx



TP1200

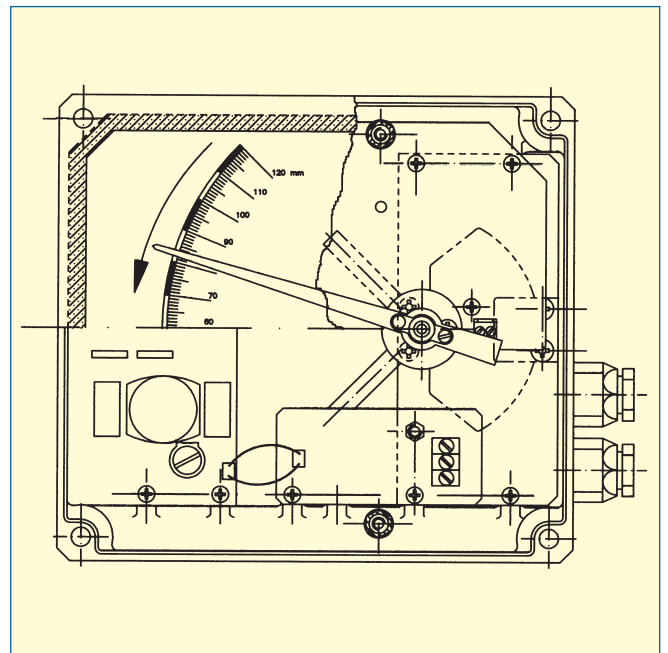
Transmitters and totalizers HALLTEC III

- 2 wire series: TH32 Transmitter
TH32T Transmitter + totalizer
- 4 wire series: TH34 Transmitter
TH34T Transmitter + totalizer

The HALLTEC electronic position transducers give an analog output proportional to the flow rate and can have a volume totalizer with a pulse output. They are based on the Hall effect using a magnetic field. They are mounted in the indicator housing.

Technical characteristics

- Power supply: 2 wire 10...50 V dc 4 wire 24...240 V ac (to be indicated) less than 2 VA
- Power consumption: max. 20 mA
- Outputs:
 - 4...20 mA analogic:**
 - Precision: < 0.6% of the magnet position
 - Maximum load in 4-20 mA loop: 2 k Ω (with 50 Vdc power supply)
 - Pulse output:** Potential free N channel MOSFET
 - I_{max.} 200 mA
 - Max. frequency 2 Hz
 - Pulse duration approx. 250 ms
- Totalizer: 9 digits, 4.5 mm high
Reset by potential free contact
- Ambient temperature: -5°C to +70°C



Safety Characteristics

Conforms to 73/23/EEC Directive (low voltage)
Conforms to 89/336/EEC Directive (EMC)

Transmitters and totalizers HALLTEC III (EEx ia IIC T4 ATEX)



- 2 wire series: TH32Ex Transmitter
TH32TEx Transmitter + totalizer

The HALLTEC electronic position transducers give an analog output proportional to the flow rate and can have a volume totalizer. They are based on the Hall effect using a magnetic field. They are mounted in the indicator housing.

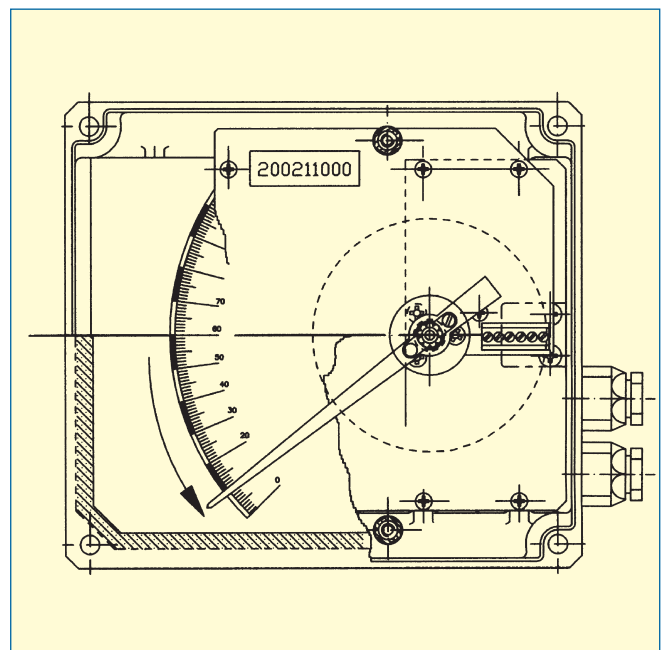
Technical characteristics

- Power consumption: 4...20 mA for 0...100% of scale
- Output:
 - 4...20 mA:**
 - Precision: < 0.6% of the magnet position
 - Maximum load in 4-20 mA loop: 700 Ω (with 24 Vdc power supply)
- Totalizer: 9 digits, 4.5 mm high
Reset by potential free contact
- Ambient temperature: -5°C to +70°C

Safety Characteristics

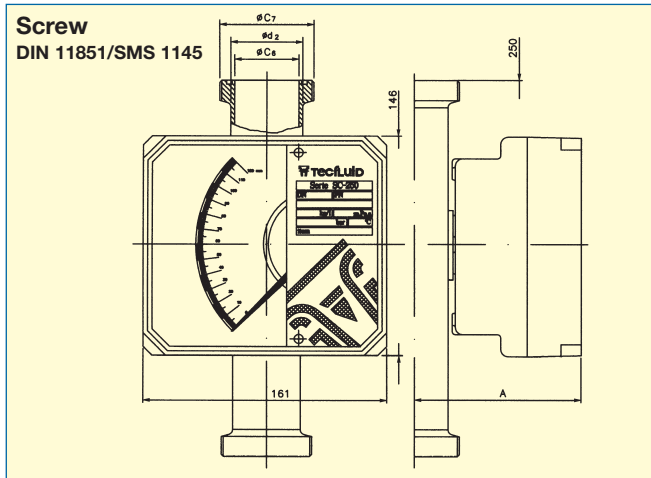
Equipment conforms to the following directives and norms.

- 89/336/EEC Electromagnetic Compatibility.
- 94/9/EC Equipment and protective systems for use in potentially explosive atmospheres.
- EN 50284 Special requirements for the construction, test and marking of electrical apparatus of equipment group II, Category 1G.



This instrument, since it belongs to group II, is destined for use in locations where there may be the hazard of the formation of explosive atmospheres, except for mining.

SC-250 Sanitary Fittings

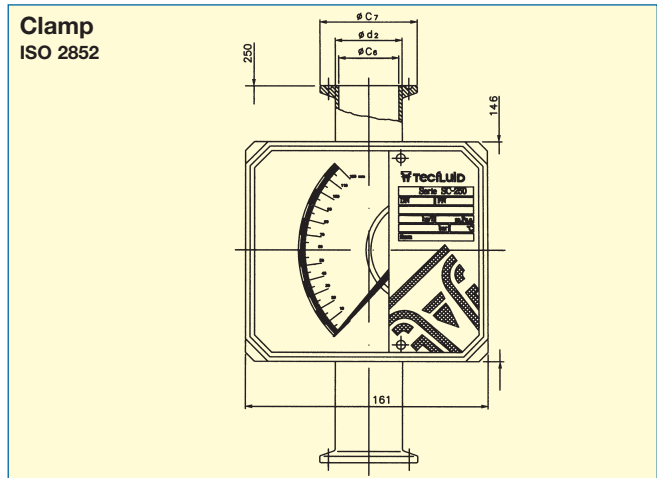


DIN 11851 EN 1.4404 (SS 316L)

| NW - DN | 15 | 25 | 40 | 50 | 65 | 80 | 100 |
|-------------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|
| $\varnothing C_7$ | Rd 34 x 1/8" | Rd 52 x 1/6" | Rd 65 x 1/6" | Rd 78 x 1/6" | Rd 95 x 1/6" | Rd 110 x 1/4" | Rd 130 x 1/4" |
| $\varnothing C_6$ | 17 | 24.8 | 35.6 | 45.8 | 67 | 82.8 | 100 |
| $\varnothing d_2$ | 21.3 | 30 | 42 | 51 | 73 | 88.9 | 108 |
| A | 114 | 118 | 124 | 129 | 140 | 148 | 157 |
| DIN Equiv.: DN | 15(PC)* | 15 | 25 | 40 | 50-65 | 80 | 100 |

SMS 1145 EN 1.4404 (SS 316L)

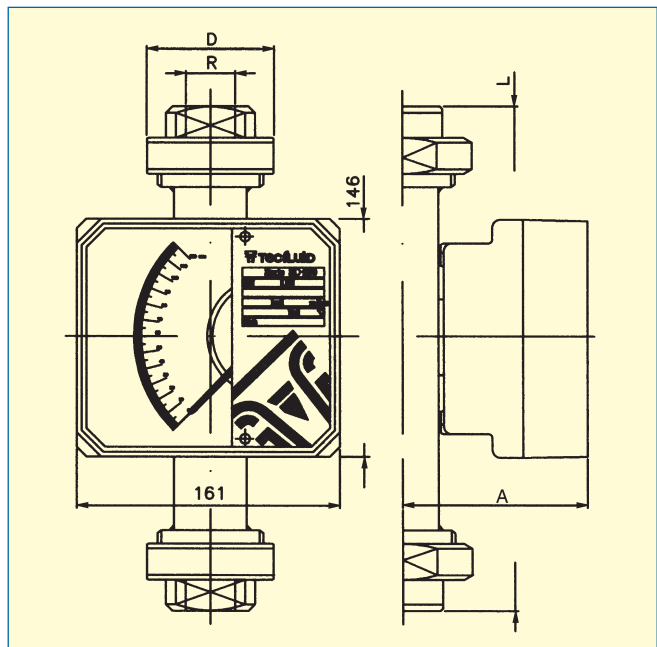
| NW - DN | 15 | 25 | 40 | 50 | 65 | 100 |
|-------------------|------|------|------|------|-----|-----|
| $\varnothing C_7$ | 40 | 60 | 70 | 85 | 98 | 125 |
| $\varnothing C_6$ | 22.5 | 35.5 | 48.5 | 60.5 | 72 | 100 |
| $\varnothing d_2$ | 25 | 42 | 51 | 63.5 | 73 | 108 |
| A | 115 | 124 | 129 | 135 | 140 | 157 |
| DIN Equiv.: DN | 15 | 25 | 40 | 50 | 65 | 100 |



CLAMP ISO 2852 : 1993 EN 1.4404 (SS 316L)

| | | | | | | | | |
|-------------------|---------|------|------|------|------|-----|------|-----|
| $\varnothing C_7$ | 34 | 50.5 | 50.5 | 64 | 77.5 | 91 | 106 | 130 |
| $\varnothing C_6$ | 17 | 24.8 | 35.6 | 45.8 | 58.3 | 67 | 82.8 | 100 |
| $\varnothing d_2$ | 21.3 | 30 | 42 | 51 | 63.5 | 73 | 88.9 | 108 |
| A | 114 | 118 | 124 | 129 | 135 | 140 | 148 | 157 |
| DIN Equiv.: DN | 15(PC)* | 15 | 25 | 40 | 50 | 65 | 80 | 100 |

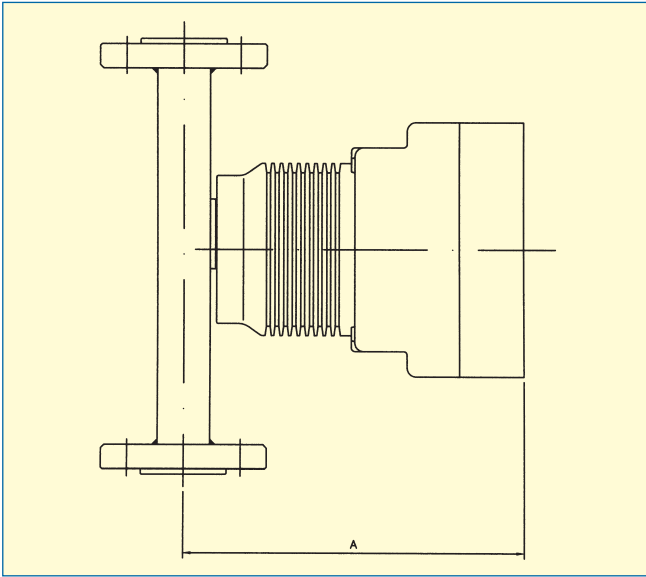
SC-250 Threaded Fittings BSP or NPT EN 1.4404 (SS 316L)



| | | | | | | | |
|----------------|---------|------|-----|--------|-----|--------|-----|
| R | 1/2" | 3/4" | 1" | 1 1/2" | 2" | 2 1/2" | 3" |
| L | 296 | 298 | 306 | 306 | 310 | 328 | 382 |
| D | 60 | 70 | 85 | 100 | 116 | 136 | 152 |
| A | 115 | 124 | 124 | 129 | 135 | 140 | 157 |
| DIN Equiv.: DN | 15(PC)* | 15 | 25 | 40 | 50 | 65 | 80 |

* Maximum Flow 250 l/h H₂O

Indicator Housing with Thermal Separator

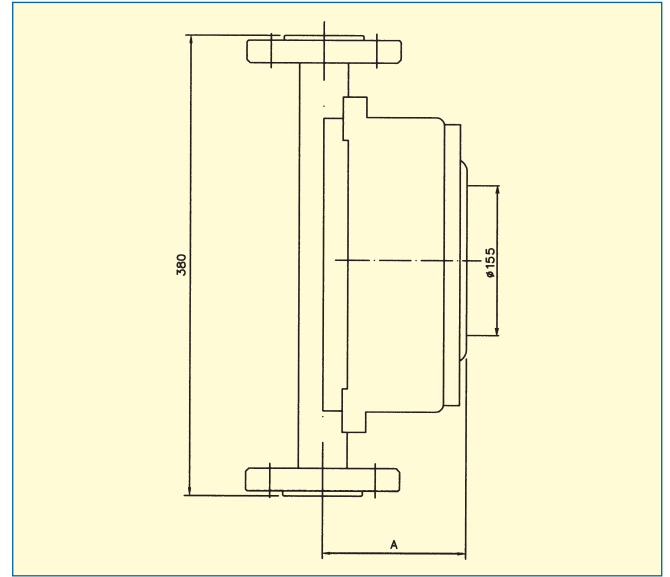


| DN | 15 | 25 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 177 | 183 | 187 | 194 | 198 | 207 | 216 | 228 | 241 |

Thermal Separator DT

- Standard in aluminium, optional in SS 316L
- For working with fluids at high and low temperatures
- With electronics
 - DN 15...DN 65: -180°C to + 300°C
 - DN 80...DN 150: -180°C to + 280°C
- Without electronics DN 15...DN 150: -180°C to + 400°C
- Reference ambient temperature = 20°C

Explosion Proof Enclosure (ADF) EEx d IIC T6

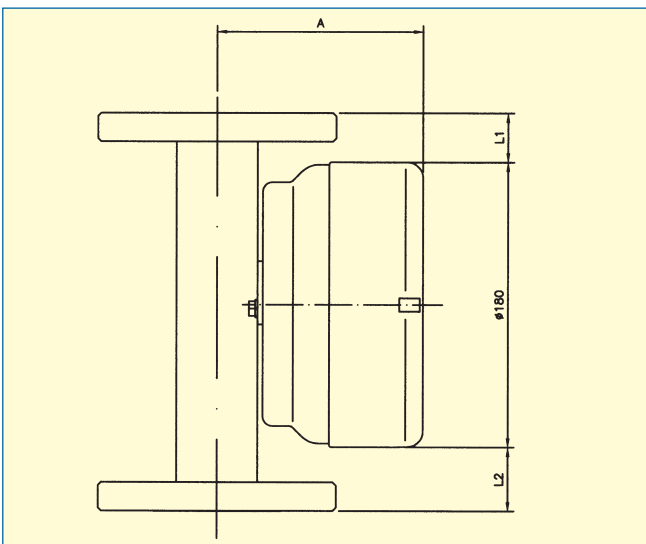


| DN | 15 | 25 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| A | 195 | 201 | 205 | 212 | 216 | 224 | 234 | 246 | 260 |

Explosion Proof Enclosure (ADF)

- Porthole with glass for viewing the flow rate
- In the inside, the SC...SM-250 housing with standard limit switches and transmitters
- Protection Class: EEx d IIC T6 - IP 65

SS 316L Housing for SC-250 & SM-250



| DN | 15 | 25 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| L1 | 30 | 30 | 30 | 30 | 30 | 30 | 35 | 35 | 60 |
| L2 | 40 | 40 | 40 | 40 | 40 | 40 | 35 | 35 | 60 |
| A | 115 | 121 | 125 | 132 | 137 | 145 | 154 | 167 | 180 |



Stainless Steel Housing CTI series

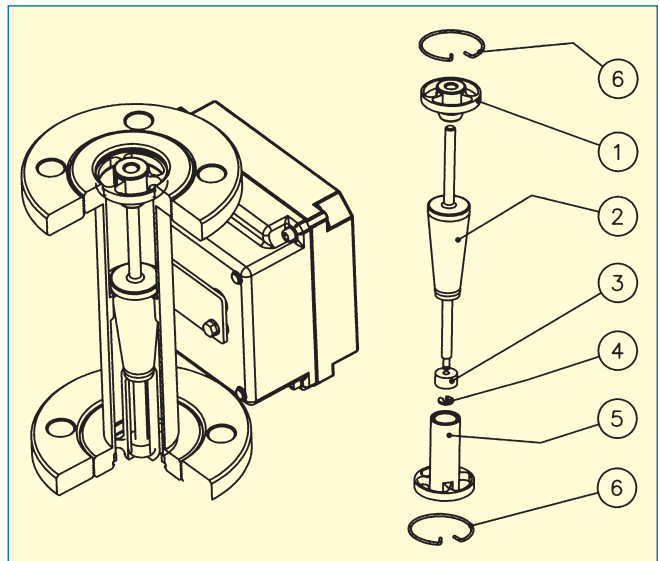
- Specially indicated for working within sanitary or sterile installations
- For saline atmospheres (marine platforms), etc.
- All stainless steel construction EN 1.4404 (SS 316L).
- Can be fitted with standard limit switches or with Halltec III 2 wires electronics.

Float Damping System (for gas applications)

Ceramic piston system for eliminating stainless steel float oscillations in gas flowmeters, obtaining stable readings inclusive with very low working pressures and low gas densities.

Available for DN 15 ... DN 80

1. Upper float stop
2. Float
3. Ceramic piston
4. Piston locking circlip
5. Guide cylinder
6. Circlips for locking upper float stop & guide cylinder



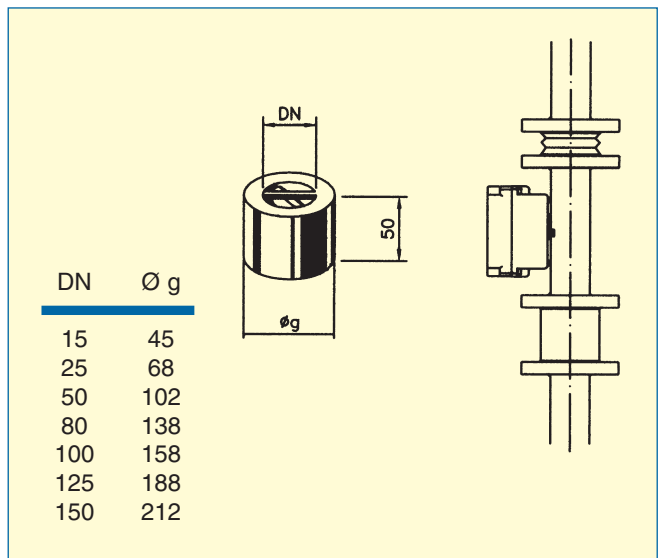
Magnetic Particle Filter

For liquids with magnetic particles in suspension, we recommend the installation of a magnetic filter.

- MAG 1 series, constructed in stainless steel EN 1.4404 (SS 316L)
- MAG-5 series, constructed in PTFE
- Other materials on demand

The permanent magnets are encapsulated in the filter material.

The magnets are mounted helicoidally to improve the capturing of magnetic particles.



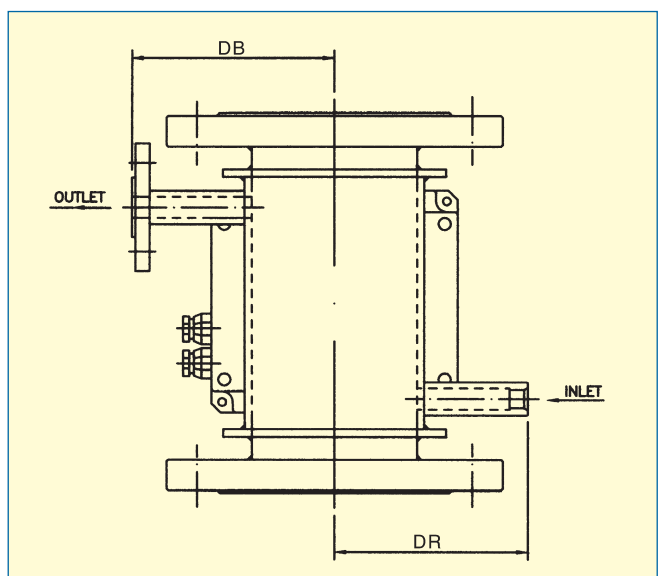
Double Heating-Cooling Chamber

For installations that require maintaining the metered fluid temperature by means of the circulation of a heating or cooling fluid through the double chamber of the flowmeter.

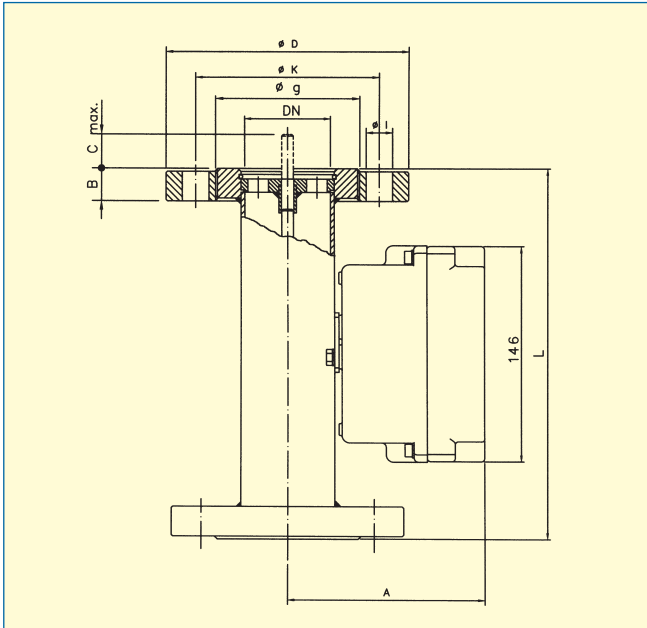
- Without contact with the metered fluid
- Flanged or threaded pipe fittings (BSP, NPT, DIN 2501)
Other standards on demand
- Pipe fitting diameters as in the table
- Stainless steel EN 1.4404 (SS 316L)
Other materials on demand

| DN | 15(PC) | 15 | 25 | 40 | 50 | 65 | 80 | 100 | 125 | 150 |
|----|--------|------|------|------|------|------|------|------|------|------|
| R | 1/2" | 1/2" | 1/2" | 3/4" | 3/4" | 1" | 1" | 1" | 1" | 1" |
| B* | DN15 | DN15 | DN15 | DN20 | DN20 | DN25 | DN25 | DN25 | DN25 | DN25 |
| DR | 35 | 39 | 45 | 50 | 50 | 56 | 70 | 80 | 91 | 104 |
| DB | 77 | 77 | 88 | 105 | 112 | 122 | 130 | 140 | 155 | 172 |

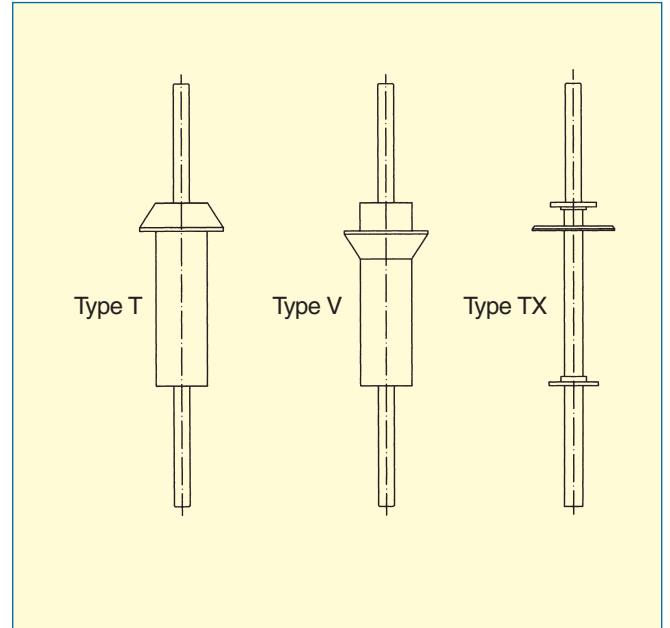
*PN16 DIN2501 Flanges (Others on demand)



SM-250 Series



SM-250 Floats



SM-250 Standard Scales

| DIN Flanges DN | ANSI Flanges 150/300# | Tapered tube n° | Scales Water Float EN 1.4404 (7.95 g/cm³) | | | Scales Air 20°C 1.013 bar abs Float EN 1.4404 (7.95 g/cm³) | | | Δp mm H ₂ O Float EN 1.4404 | | |
|-------------------|--------------------------|--------------------|--|---------------|----------------|---|-----------------|------------------|---|--------|---------|
| | | | Type T l/h | Type V l/h | Type TX l/h | Type T Nm³/h | Type V Nm³/h | Type TX Nm³/h | Type T | Type V | Type TX |
| 15 | 1/2" | CM-11 | | | 2-20 | | | 0.06-0.6 | | | 360 |
| | | CM-12 | | | 5-50 | | | 0.15-1.5 | | | 360 |
| | | CM-13 | 6-60 | | 8-80 | | | 0.24-2.4 | | | 360 |
| | | CM-14 | 10-100 | | 10-100 | | | 0.30-3.0 | | | 360 |
| | | CM-15 | 16-160 | | 15-150 | | | 0.45-4.5 | | | 360 |
| | | CM-21 | 25-250 | 30-300 | 20-230 | 0.8-8 | 0.9-9 | 0.70-7 | 550 | 550 | 400 |
| 3/4" | CM-22 | 40-400 | 50-500 | 30-300 | 1.2-12 | 1.5-15 | 0.90-9 | 550 | 550 | 400 | |
| | CM-23 | 60-630 | 80-800 | 50-500 | 2.0-20 | 2.5-25 | 1.5-15 | 550 | 550 | 400 | |
| | CM-24 | 80-800 | 100-1000 | 60-650 | 2.5-25 | 3.0-30 | 2.0-20 | 600 | 600 | 430 | |
| 25 | 1" | CM-25 | 100-1000 | 130-1300 | 80-800 | 3.0-30 | 4.0-40 | 2.0-24 | 600 | 700 | 450 |
| | | CM-26 | 120-1200 | 160-1600 | 100-1000 | 3.5-35 | 4.5-45 | 3.0-30 | 700 | 800 | 500 |
| 1 1/4" | CM-31 | 160-1600 | 200-2000 | 120-1200 | 5.0-50 | 6.0-60 | 3.5-35 | 700 | 990 | 320 | |
| | CM-32 | 200-2000 | 250-2500 | 150-1500 | 6.0-60 | 7.5-75 | 4.5-45 | 900 | 1200 | 410 | |
| | CM-33 | 250-2500 | 300-3000 | 180-1800 | 7.0-70 | 10-100 | 5.0-50 | 1100 | 1600 | 530 | |
| 40 | 1 1/2" | CM-41 | 300-3000 | 400-4000 | 150-1500 | 9.0-90 | 12-120 | 4.5-45 | 450 | 600 | 150 |
| | | CM-42 | 400-4000 | 500-5300 | 200-2000 | 12-120 | 15-150 | 6.0-60 | 550 | 800 | 180 |
| 50 | 2" | CM-43 | 500-5000 | 650-6500 | 250-2500 | 15-150 | 18-180 | 7.0-70 | 500 | 600 | 160 |
| | | CM-44 | 600-6000 | 800-8000 | 300-3000 | 18-180 | 20-240 | 8.0-80 | 550 | 800 | 170 |
| | | CM-45 | 750-7500 | 1000-10000 | 350-3500 | 20-200 | 30-300 | 10-100 | 700 | 1000 | 190 |
| 65 | 2 1/2" | CM-51 | 1000-10000 | 1300-13000 | 400-4000 | 30-300 | 40-400 | 12-120 | 600 | 800 | 140 |
| | | CM-52 | 1200-12000 | 1500-15000 | 500-5000 | 35-350 | 45-450 | 15-150 | 700 | 900 | 170 |
| 80 | 3" | CM-61 | 1600-16000 | 2000-20000 | 600-6000 | 50-500 | 60-600 | 18-180 | 600 | 800 | 100 |
| | | CM-62 | 2000-20000 | 2500-25000 | 600-6500 | 60-600 | 70-700 | 20-200 | 800 | 1000 | 120 |

