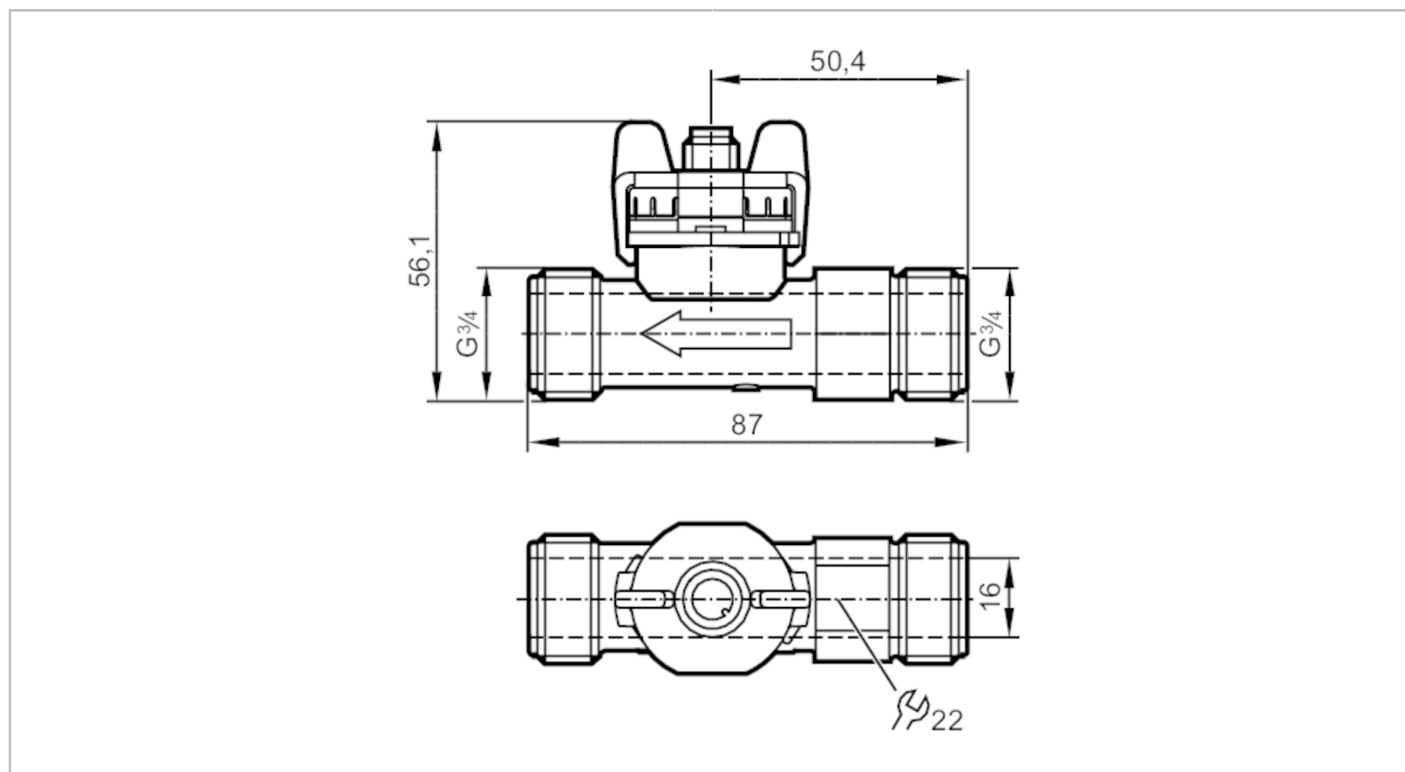


SV6050



Vortex flow meter

SVM34XXXD0KG/US-100



Product characteristics

| | | |
|------------------------------|--------------------------------|------------------|
| Number of inputs and outputs | Number of analogue outputs: 1 | |
| Measuring range | 3.5...50 l/min | 0.29...4.145 m/s |
| Process connection | threaded connection G 3/4 DN15 | |

Application

| | | |
|------------------------------|-------------------------------------------|--|
| Special feature | Gold-plated contacts | |
| Measuring element | 1 x Pt 1000; (to DIN EN 60751, class B) | |
| Application | for industrial applications | |
| Installation | connection to pipe by means of an adapter | |
| Media | water; glycol solutions; coolants | |
| Medium temperature [°C] | -40...100 | |
| Min. bursting pressure [bar] | 25 | |
| Pressure rating [bar] | 12 | |
| Note on pressure rating | up to 40 °C | |

Electrical data

| | | |
|---------------------------------|-----------------|--|
| Operating voltage [V] | 8...33 DC | |
| Min. insulation resistance [MΩ] | 100; (500 V DC) | |
| Protection class | III | |
| Power-on delay time [s] | < 2 | |

Inputs / outputs

| | | |
|------------------------------|-------------------------------|--|
| Number of inputs and outputs | Number of analogue outputs: 1 | |
|------------------------------|-------------------------------|--|

SV6050



Vortex flow meter

SVM34XXXD0KG/US-100

| Outputs | | |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| Total number of outputs | 1 | |
| Output signal | analogue signal | |
| Number of analogue outputs | 1 | |
| Analogue current output [mA] | 4...20; (water: $Q [l/min] = 3,125 \times (I - 4 \text{ mA})$; water-glycol: $Q [l/min] = 3,125 \times (I - 4 \text{ mA}) - Q_0$ see Figure 2) | |
| Max. load [Ω] | $< (U_b - 8 \text{ V}) / 20 \text{ mA}$; $U_b = 24 \text{ V}$: 800 | |
| Measuring/setting range | | |
| Measuring range | 3.5...50 l/min | 0.29...4.145 m/s |
| Temperature monitoring | | |
| Internal heating temperature probe | 1 K/mW | |
| Measuring range [$^{\circ}\text{C}$] | -40...100 | |
| Accuracy / deviations | | |
| Flow monitoring | | |
| Accuracy (in the measuring range) | $Q < 50 \% \text{ MEW}: < 1 \% \text{ MEW} / Q > 50 \% \text{ MEW}: < 2 \% \text{ MW}$; (water) | |
| Repeatability | 0,2; (% of the final value) | |
| Temperature monitoring | | |
| Accuracy [K] | $\pm 0,3 \pm 0,005 \times T$ | |
| Response times | | |
| Flow monitoring | | |
| Response time [s] | 0.5 | |
| Operating conditions | | |
| Ambient temperature [$^{\circ}\text{C}$] | -15...85 | |
| Note on ambient temperature | medium temperature $> 0^{\circ}\text{C}$: -30...85 | |
| Storage temperature [$^{\circ}\text{C}$] | -30...85 | |
| Protection | IP 65 | |
| Cavitation | $P(\text{absolute discharge}) / P(\text{difference}) > 5.5$ to avoid cavitation | |
| Tests / approvals | | |
| EMC | EN 61326-2-3 | |
| Shock resistance | DIN EN 60068-2-27 | 30 g (11 ms) |
| Vibration resistance | DIN EN 60068-2-6 | with water / 10...61 Hz 1 mm with water / 61...2000 Hz 2 g |
| MTTF [years] | 380 | |
| Pressure Equipment Directive | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |
| Mechanical data | | |
| Weight [g] | 77 | |
| Materials | PA 6T | |
| Materials (wetted parts) | ETFE; PA 6T; FKM | |
| Tightening torque [Nm] | 12 | |
| Process connection | threaded connection G 3/4 DN15 | |

SV6050



Vortex flow meter

SVM34XXXD0KG/US-100

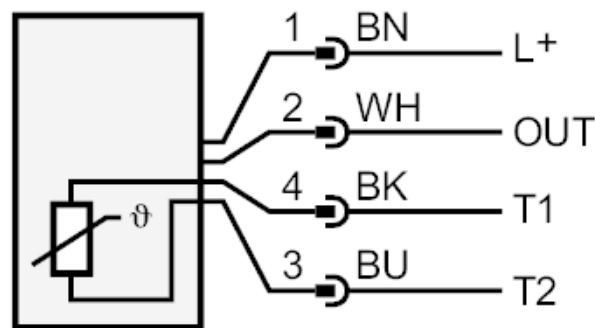
| Remarks | |
|---------------|------------------------------------------|
| Remarks | MW = measured value |
| | MEW = Final value of the measuring range |
| Pack quantity | 1 pcs. |

Electrical connection

Connector: 1 x M12; Contacts: gold-plated



Connection



OUT: analogue output

T1 / T2: Pt1000

colours to DIN EN 60947-5-2

Core colours :

BK = black

BN = brown

BU = blue

WH = white

SV6050

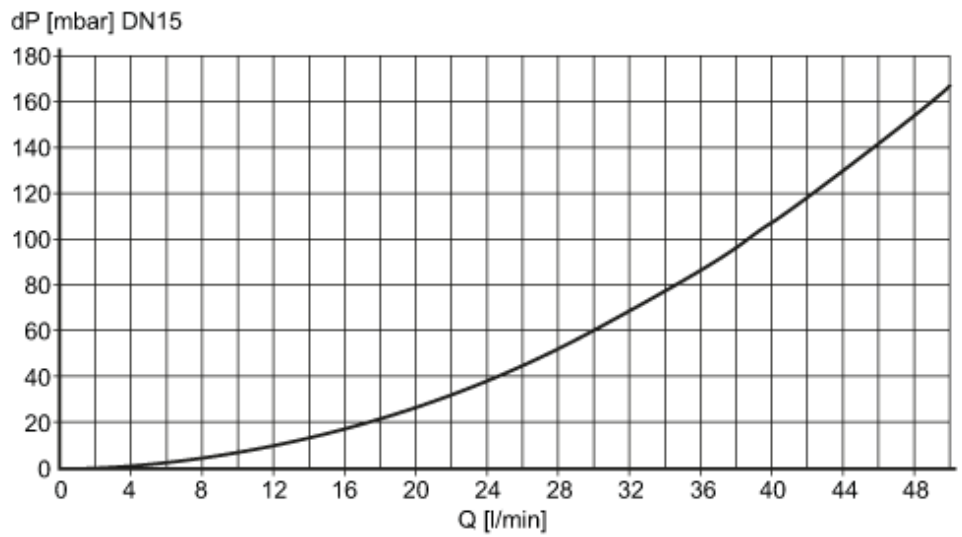


Vortex flow meter

SVM34XXXD0KG/US-100

Diagrams and graphs

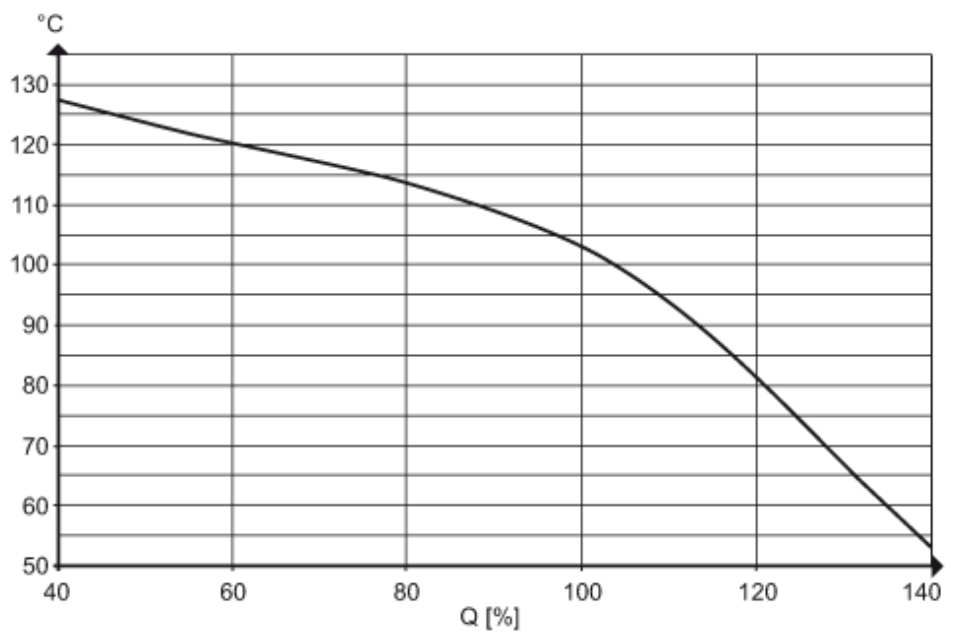
Pressure loss



dP Pressure loss

Q volumetric flow quantity

min. life 10 years referred to flow and high medium temperatures



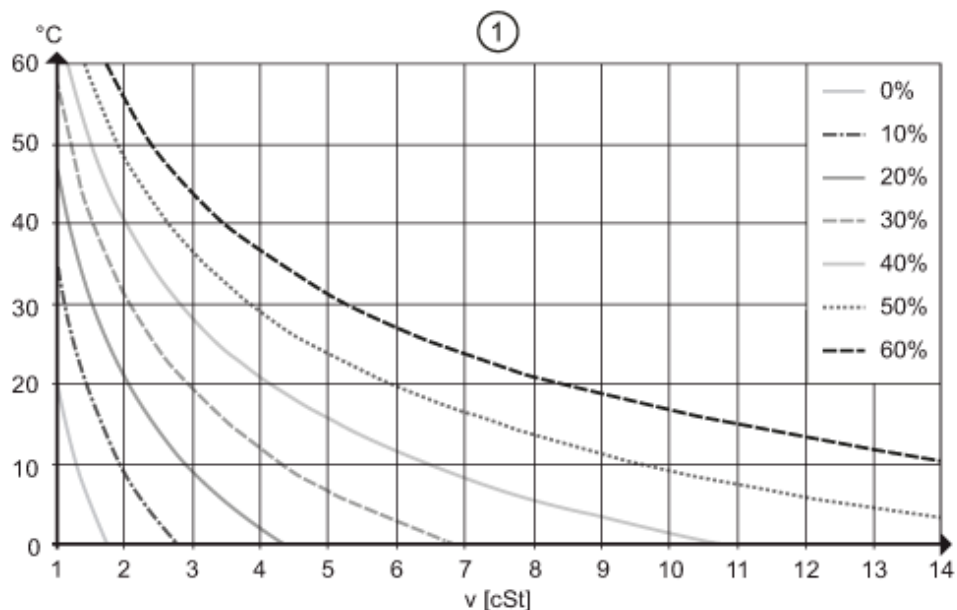
SV6050



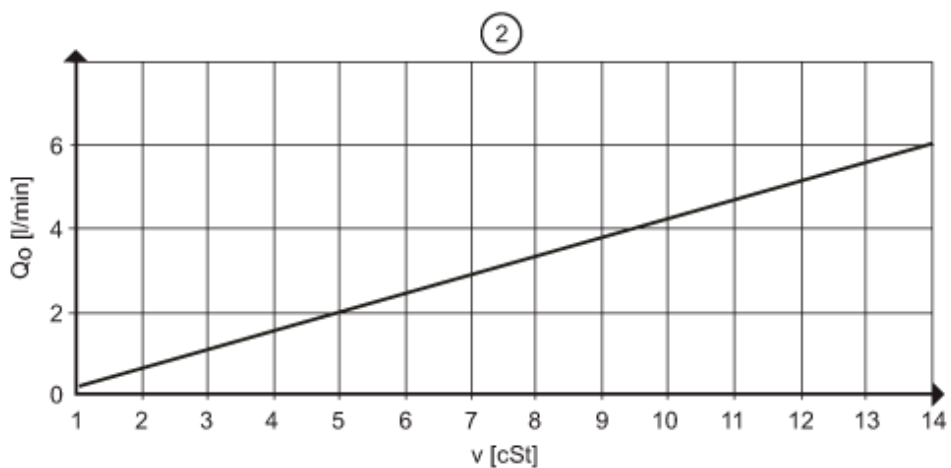
Vortex flow meter

SVM34XXXD0KG/US-100

determination of the kinematic viscosity (ν) of glycol-water mixtures depending on the temperature



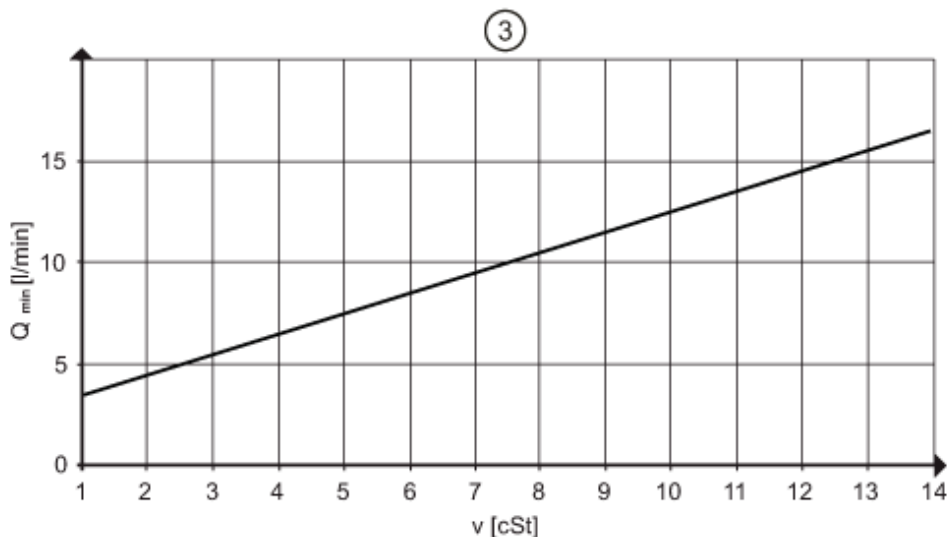
determination of the compensation value Q_0 for glycol-water mixtures



$\nu < 4$ cSt measuring accuracy 3% MEW

$4 < \nu < 14$ cSt measuring accuracy 4% MEW

response threshold Q_{min} depending on the kinematic viscosity



SV6050

Vortex flow meter

SVM34XXXD0KG/US-100



pressure rating (bar)

