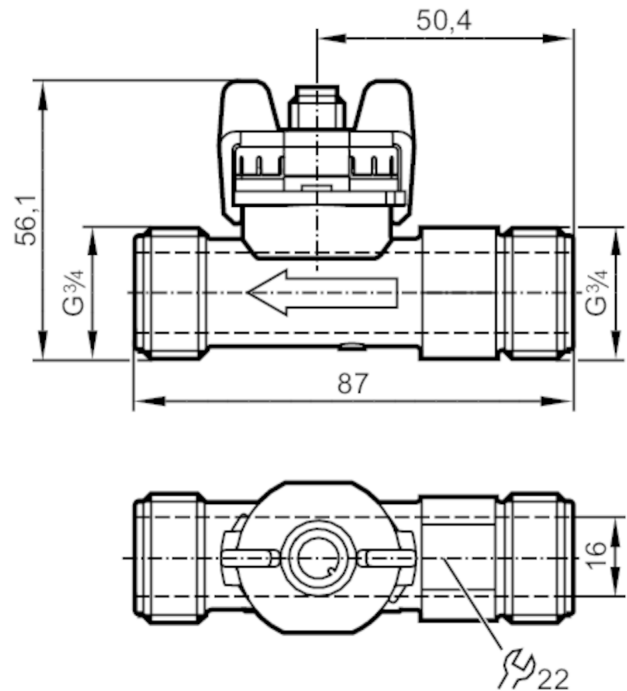


# SV6150



## Vortex flow meter

SVM34XXXD0KG/US-100



### Product characteristics

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

### Application

|                         |                                           |         |
|-------------------------|-------------------------------------------|---------|
| System                  | 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  | 25 bar                                    | 2.5 MPa |
| Pressure rating         | 12 bar                                    | 1.2 MPa |
| 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             |  |
| Measuring principle             | Vortex          |  |

### Inputs / outputs

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

# SV6150



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| Outputs                            |                                                                                                                 |                               |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------|
| Total number of outputs            | 1                                                                                                               |                               |
| Output signal                      | analog signal                                                                                                   |                               |
| Number of analog outputs           | 1                                                                                                               |                               |
| Analog current output [mA]         | 4...20; (water: Q [l/min] = 3,125 x (I - 4 mA); water-glycol: Q [l/min] = 3,125 x (I - 4 mA) - Qo see Figure 2) |                               |
| Max. load [Ω]                      | < (Ub - 8 V) / 20 mA; Ub = 24 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 [°C]               | -40...100                                                                                                       |                               |
| Accuracy / deviations              |                                                                                                                 |                               |
| Flow monitoring                    |                                                                                                                 |                               |
| Accuracy (in the measuring range)  | Q < 50 % MEW: < 1 % MEW / Q > 50 % MEW: < 2 % MW; (water)                                                       |                               |
| Repeatability                      | 0,2; (% of the final value)                                                                                     |                               |
| Temperature monitoring             |                                                                                                                 |                               |
| Accuracy [K]                       | ± 0,3 ± 0,005 x T                                                                                               |                               |
| Reaction times                     |                                                                                                                 |                               |
| Flow monitoring                    |                                                                                                                 |                               |
| Response time [s]                  | 0.5                                                                                                             |                               |
| Operating conditions               |                                                                                                                 |                               |
| Ambient temperature [°C]           | -15...85                                                                                                        |                               |
| Note on ambient temperature        | medium temperature > 0 °C: -30...85                                                                             |                               |
| Storage temperature [°C]           | -30...85                                                                                                        |                               |
| Protection                         | IP 65                                                                                                           |                               |
| Cavitation                         | P(absolute) discharge / P(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]                         | 76.5                                                                                                            |                               |
| Housing                            | rectangular                                                                                                     |                               |
| Dimensions [mm]                    | 87 x 30.22 x 56.1                                                                                               |                               |
| Material                           | PA 6T                                                                                                           |                               |
| Materials (wetted parts)           | ETFE; PA 6T; EPDM                                                                                               |                               |
| Tightening torque [Nm]             | 12                                                                                                              |                               |
| Process connection                 | threaded connection G 3/4 external thread DN15                                                                  |                               |

SV6150



Vortex flow meter

SVM34XXD0KG/US-100

Displays / operating elements

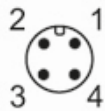
|         |  |                                       |
|---------|--|---------------------------------------|
| Display |  | Color display 1,44", 128 x 128 pixels |
|         |  | 2 x LED, yellow                       |

Remarks

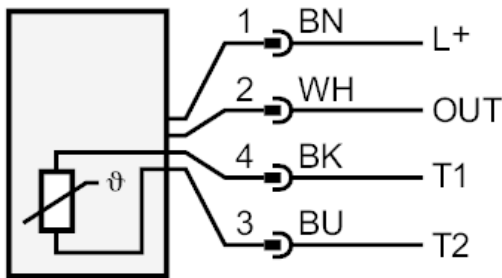
|               |                                          |
|---------------|------------------------------------------|
| Remarks       | MW = Measured value                      |
|               | MEW = Final value of the measuring range |
| Pack quantity | 1 pcs.                                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

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



Connection



OUT: analog output  
T1 / T2: Pt1000  
Colors to DIN EN 60947-5-2  
Core colors :  
BK = black  
BN = brown  
BU = blue  
WH = white

# SV6150

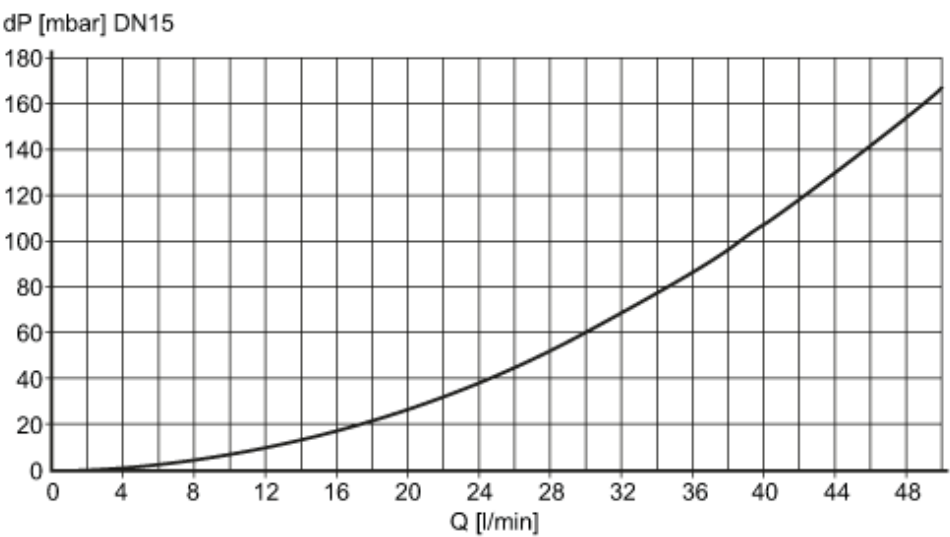


## Vortex flow meter

SVM34XXD0KG/US-100

### Diagrams and graphs

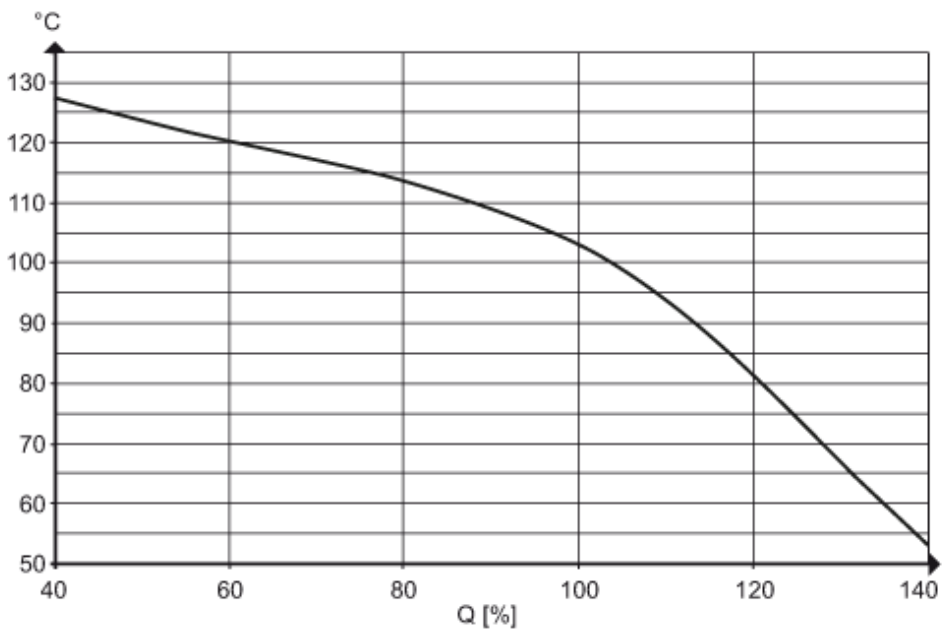
Pressure loss



dP Pressure loss

Q volumetric flow quantity

Minimum lifetime 10 years  
referred to flow and high medium  
temperatures

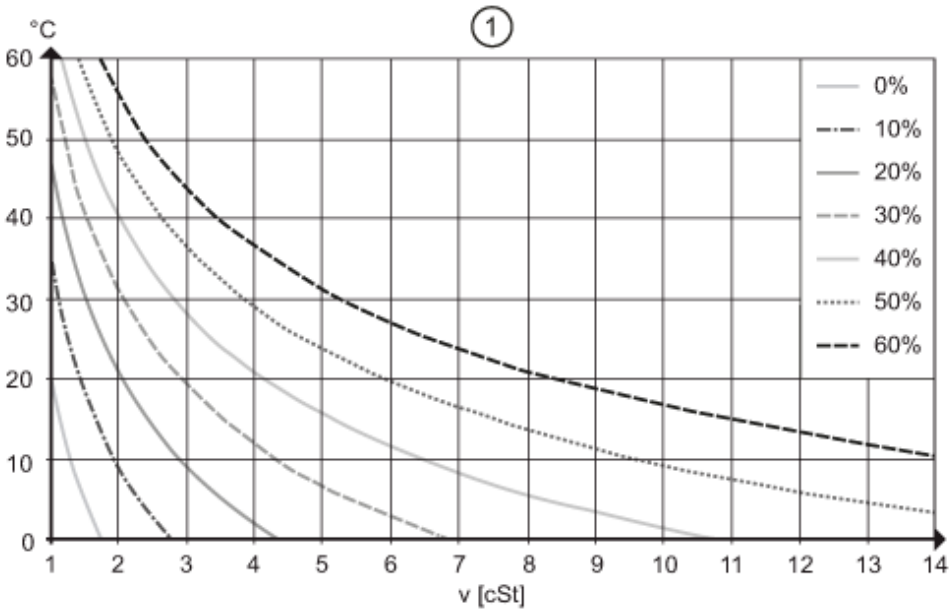




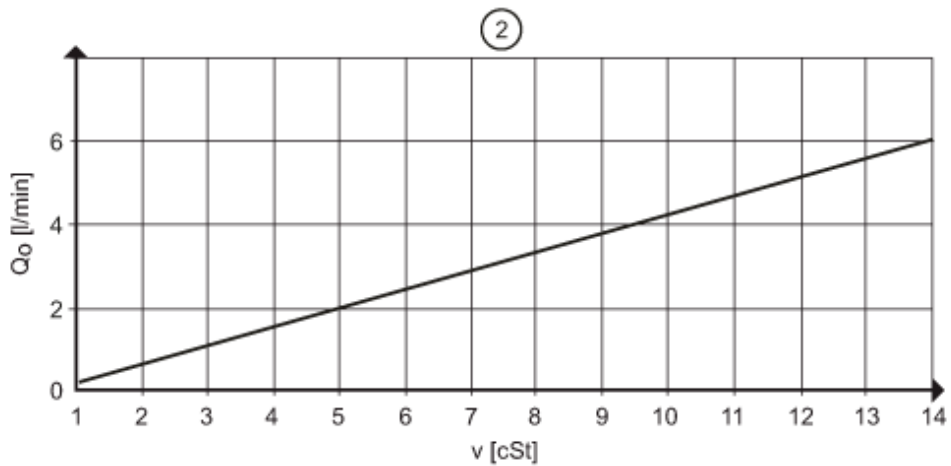
Vortex flow meter

SVM34XXD0KG/US-100

Determination of the kinematic viscosity ( $\nu$ ) of glycol-water mixtures depending on the temperature



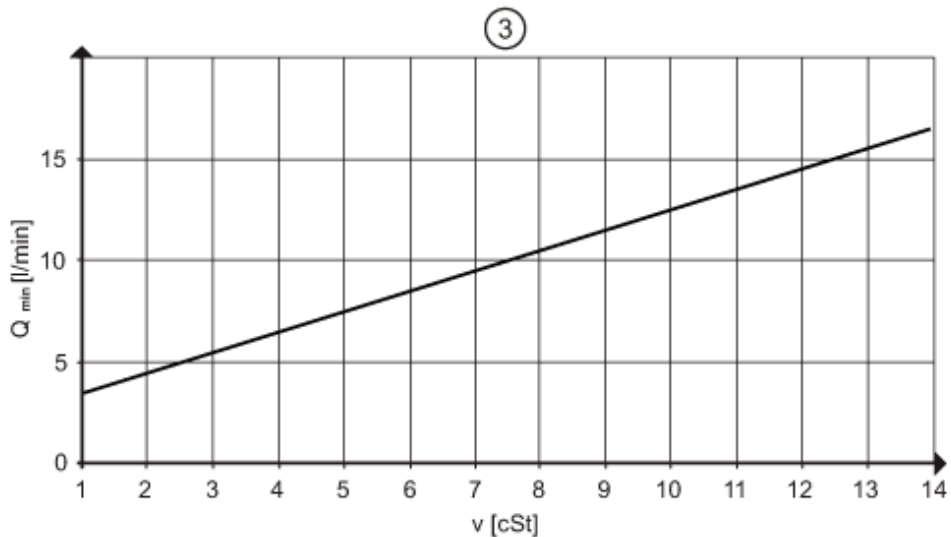
determination of the compensation value  $Q_0$  for glycol-water mixtures



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

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

Response threshold  $Q_{min}$  depending on the kinematic viscosity



# SV6150



## Vortex flow meter

SVM34XXD0KG/US-100

pressure rating (bar)

