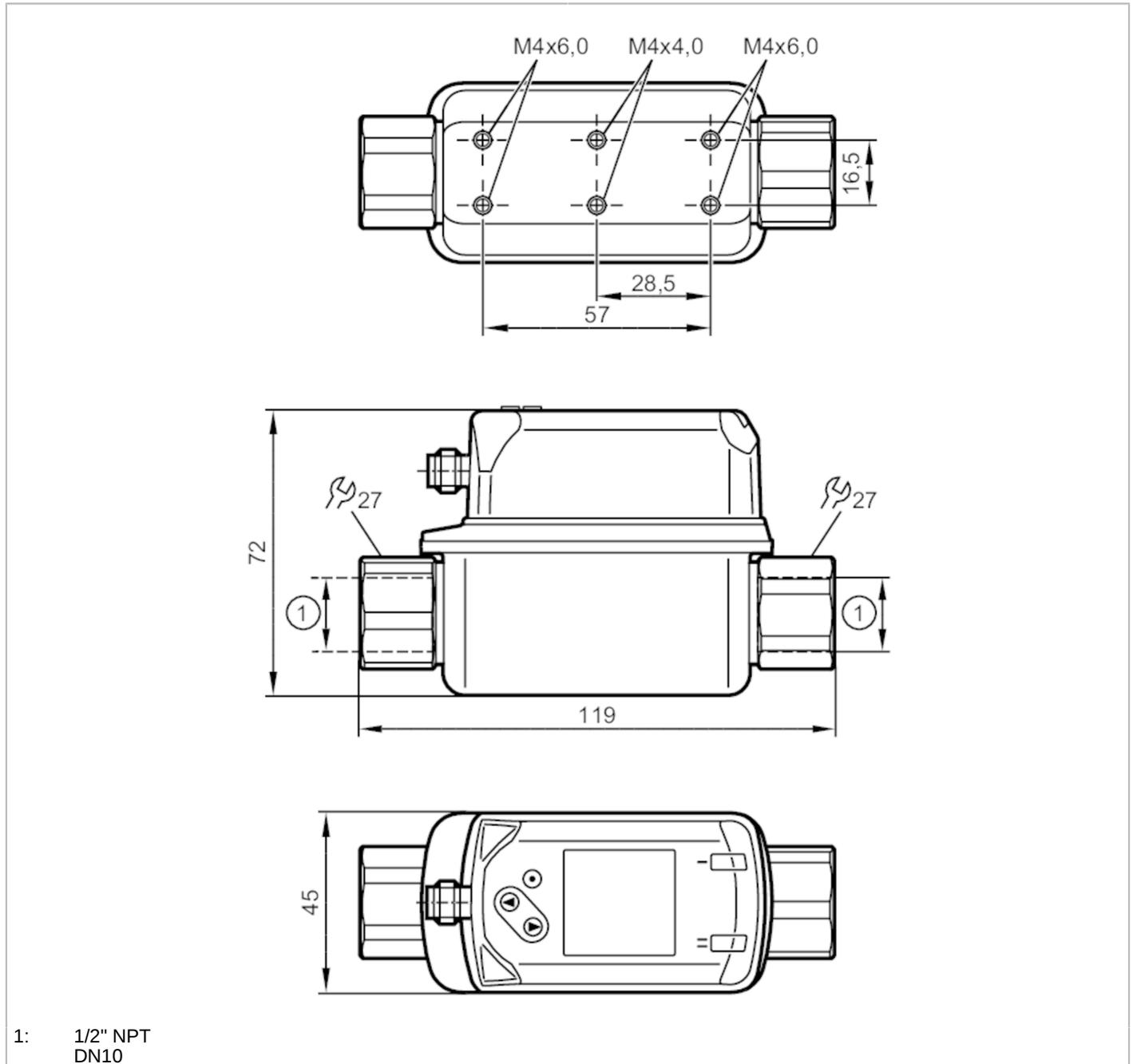


SV5610



Vortex flow meter with display

SVN12XXXIRKG/US-100



| Product characteristics | |
|------------------------------|---|
| Number of inputs and outputs | Number of digital outputs: 2 |
| Measuring range | 32...634 gph 0.55...10.55 gpm |
| Process connection | threaded connection 1/2" NPT internal thread DN10 |
| Application | |
| Special feature | Gold-plated contacts |
| Application | for industrial applications |
| Media | water; glycol solutions; coolants |
| Pressure rating | [bar] 12 |

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| | | |
|--|-------|-------------|
| Pressure rating | [MPa] | 1.2 |
| Pressure rating | [psi] | 174 |
| Note on pressure rating | | up to 40 °C |
| MAWP (for applications according to CRN) | [bar] | 4.8 |

Electrical data

| | | |
|-----------------------------|------|-----------------|
| Operating voltage | [V] | 18...30 DC |
| Current consumption | [mA] | < 30 |
| Min. insulation resistance | [MΩ] | 100; (500 V DC) |
| Protection class | | III |
| Reverse polarity protection | | yes |
| Power-on delay time | [s] | < 3 |
| Measuring principle | | Vortex |

Inputs / outputs

| | |
|------------------------------|------------------------------|
| Number of inputs and outputs | Number of digital outputs: 2 |
|------------------------------|------------------------------|

Outputs

| | |
|---|---|
| Total number of outputs | 2 |
| Output signal | switching signal; frequency signal; IO-Link; (configurable) |
| Electrical design | PNP/NPN |
| Number of digital outputs | 2 |
| Output function | normally open / normally closed; (parameterisable) |
| Max. voltage drop switching output DC | [V] 2.5 |
| Permanent current rating of switching output DC | [mA] 100 |
| Short-circuit protection | yes |
| Overload protection | yes |

Measuring/setting range

| | | |
|--------------------------------|---------------|------------------|
| Measuring range | 32...634 gph | 0.55...10.55 gpm |
| Display range | 0...760 gph | 0...12.7 gpm |
| Resolution | 2 gph | 0.05 gpm |
| Set point SP | 38...634 gph | 0.65...10.55 gpm |
| Reset point rP | 32...628 gph | 0.55...10.45 gpm |
| Frequency end point, FEP | 126...634 gph | 2.1...10.55 gpm |
| In steps of | 2 gph | 0.05 gpm |
| Frequency at the end point FRP | [Hz] | 100...1000 |
| Measuring dynamics | | 1:20 |

Temperature monitoring

| | | |
|----------------------------|------|-----------|
| Measuring range | [°F] | 14...194 |
| Display range | [°F] | -22...230 |
| Resolution | [°F] | 1 |
| Set point SP | [°F] | 16...194 |
| Reset point rP | [°F] | 14...192 |
| In steps of | [°F] | 1 |
| Frequency start point, FSP | [°F] | 14...158 |

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| | | |
|--------------------------------|------|------------|
| Frequency end point, FEP | [°F] | 50...194 |
| Frequency at the end point FRP | [Hz] | 100...1000 |

Accuracy / deviations

| | | |
|-----------------------------------|-----|--------------------|
| Flow monitoring | | |
| Accuracy (in the measuring range) | | ± 2 % MEW; (water) |
| Repeatability | | ± 0,5 % MEW |
| Temperature monitoring | | |
| Accuracy | [K] | ± 1 |

Response times

| | | |
|----------------------------|-----|--------------|
| Flow monitoring | | |
| Response time | [s] | 1; (dAP = 0) |
| Damping process value dAP | [s] | 0...5 |
| Temperature monitoring | | |
| Dynamic response T05 / T09 | [s] | T09 = 6 |

Software / programming

| | |
|---------------------------|--|
| Parameter setting options | hysteresis / window; normally open / normally closed; switching logic; frequency output; switch-on/switch-off delay; Damping; Display unit |
|---------------------------|--|

Interfaces

| | | |
|---------------------------|--|-----------------|
| Communication interface | IO-Link | |
| Transmission type | COM2 (38,4 kBaud) | |
| IO-Link revision | 1.1 | |
| SDCI standard | IEC 61131-9 | |
| Profiles | Smart Sensor: Process Data Variable; Device Identification, Device Diagnosis | |
| SIO mode | yes | |
| Required master port type | A | |
| Process data analogue | 2 | |
| Process data binary | 2 | |
| Min. process cycle time | [ms] | 3 |
| Supported DeviceIDs | Type of operation | DeviceID |
| | default | 490 |

Operating conditions

| | | |
|-----------------------------|------|---|
| Ambient temperature | [°F] | 32...140 |
| Note on ambient temperature | | medium temperature < 176 °F medium temperature < 194 °F: 32...122 °F |
| Storage temperature | [°F] | -4...176 |
| Protection | | IP 65; IP 67 |

Tests / approvals

| | | |
|----------------------|-------------------|-------------------------------|
| EMC | DIN EN 61000-6-2 | |
| | DIN EN 61000-6-3 | |
| Shock resistance | DIN EN 60068-2-27 | 5 g (11 ms) |
| Vibration resistance | DIN EN 60068-2-6 | with water / 10...50 Hz 1 mm |
| | | with water / 50...2000 Hz 2 g |
| MTTF | [years] | 342 |

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| | | |
|------------------------------|---|------|
| UL approval | UL Approval no. | I001 |
| Pressure Equipment Directive | Sound engineering practice; can be used for group 2 fluids; group 1 fluids on request | |

| Mechanical data | | |
|--------------------------|------|--|
| Weight | [g] | 468 |
| Housing | | rectangular |
| Dimensions | [mm] | 119 x 45 x 72 |
| Materials | | stainless steel (316L/1.4404); PC; PBT+PC-GF30; PPS; TPE-U |
| Materials (wetted parts) | | stainless steel (316L/1.4404); ETFE; PA 6T; PPS; FKM |
| Tightening torque | [Nm] | 30 |
| Process connection | | threaded connection 1/2" NPT internal thread DN10 |

| Displays / operating elements | | |
|-------------------------------|--|---|
| Display | | colour 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



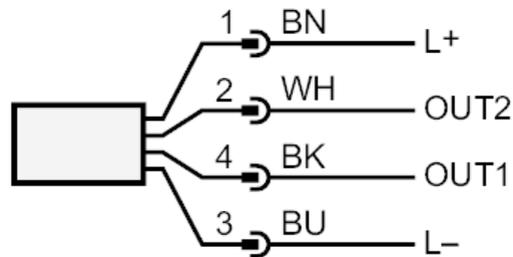
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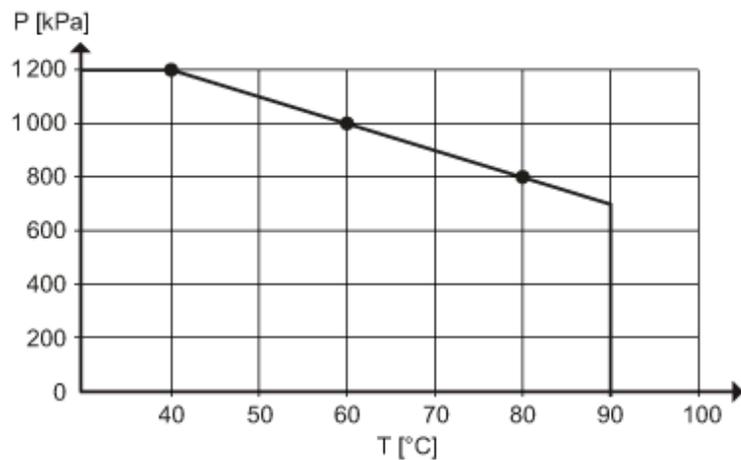
Connection



- OUT1: Flow monitoring
- switching output
- frequency output
- IO-Link
- OUT2: flow monitoring and temperature monitoring
- switching output
- frequency output
- colours to DIN EN 60947-5-2
- Core colours :
- BK = black
BN = brown
BU = blue
WH = white

Diagrams and graphs

pressure rating (bar)



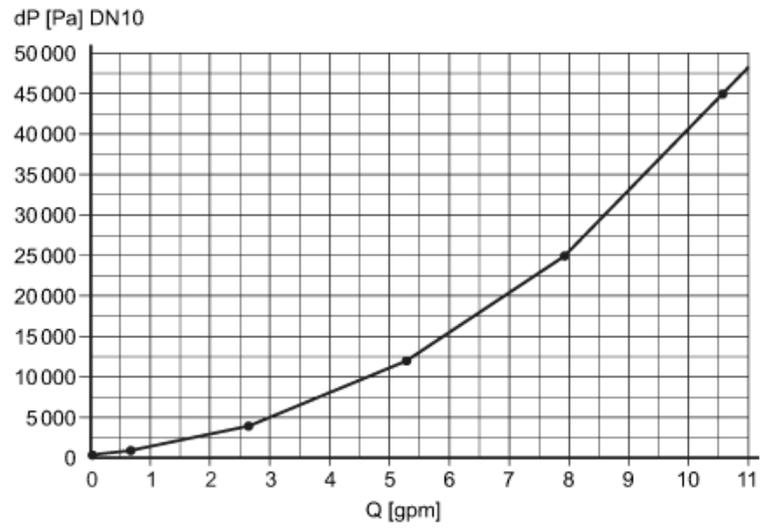
SV5610



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Pressure loss



dP Pressure loss

Q volumetric flow quantity