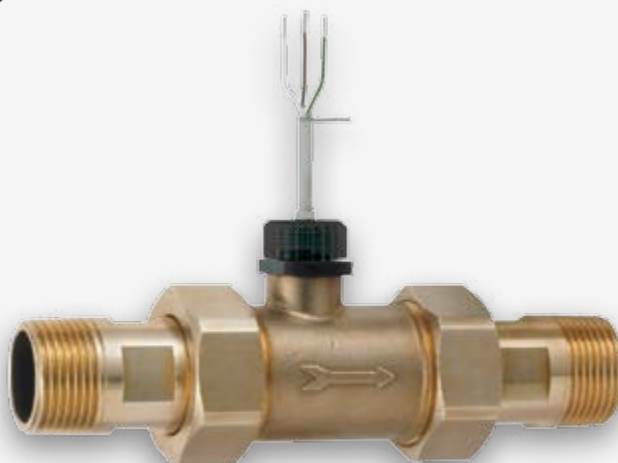


Turbotron VT 25

VTH / VTM / VTI 25

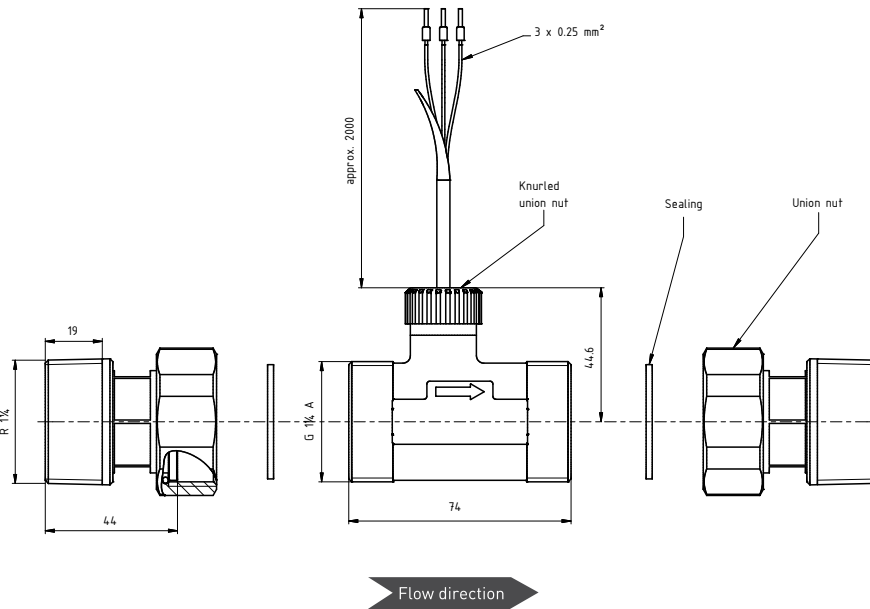
Typ VTH 25



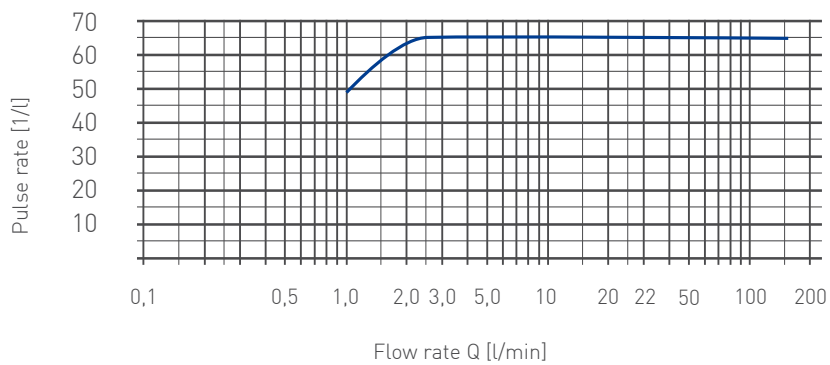
| Type | VTH 25 economy-priced type for standard and serial applications, | | VTM 25 higher pressure, plug connection | | VTI 25 magnet-free rotor, plug connection | |
|---|--|---|---|-----------------|---|---|
| Material pipe section | Brass | Plastic PP | Brass | Stainless steel | Brass | Plastic PP |
| Measurement range | 4...160 l/min - with continuous operation max. 80 l/min | | | | | |
| Accuracy | ±5 % of measured value (up to 5 l/min 7 % of measured value) | | | | | |
| Reproducibility | ±0.5 % | | | | | |
| Signal output | < 1 l/min | | | | | |
| Medium temperature | Max. 85 °C | Max. 80 °C / 2 bar Max. 60 °C / 5 bar Max. 30 °C / 10 bar | Max. 85 °C | | Max. 60 °C | Max. 60 °C / 5 bar Max. 30 °C / 10 bar |
| Pressure rating | PN 10 | | PN 50 | | PN 10 | |
| Nominal diameter | DN 25 | | | | | |
| Process connection | G 1¼ male thread, supplementary screwed connection required* | | | | | |
| Sensor | Hall effect sensor | | Hall effect sensor | | Inductive proximity switch | |
| Output signal | Hall effect sensor | | Hall effect sensor | | Inductive proximity switch | |
| → Pulse rate / K-factor | 65 pulses/l | | 65 pulses/l | | 65 pulses/l | |
| → Resolution | 15 ml/pulse | | 15 ml/pulse | | 15 ml/pulse | |
| → Signal shape | Square wave signal NPN open collector | | Square wave signal NPN open collector | | Square wave signal PNP open collector | |
| → Signal current | Max. 19 mA | | Max. 19 mA | | Max. 200 mA | |
| Electrical connection | 2 m PVC cable, screened (T _{max} = 75 °C) | | 4 pin plug connector M12 x 1 | | | |
| Power supply | 10...30 VDC optional 4.5...26.5 VDC | | 6.5...24 VDC short circuit proof and reverse polarity protected | | 10...30 VDC | |
| Degree of protection | IP54 | | | | | |
| Max. particle size in the medium | < 0.63 mm | | | | | |
| Options | | | | | | |
| Screen filter | Flat filter, mesh size 0.63 mm | | | | | |

* Supplementary connection adapters are available on page 102.

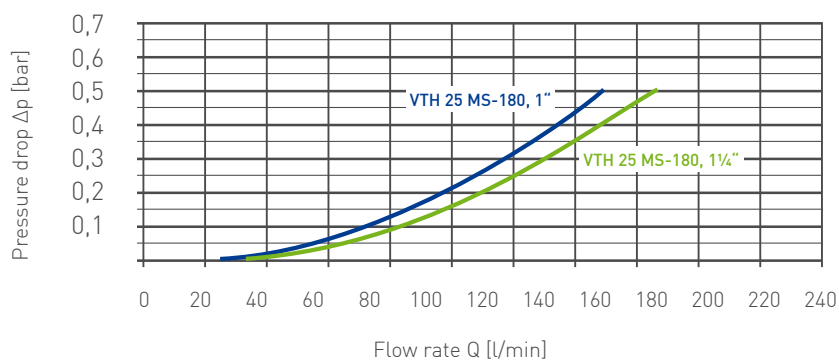
Dimensions, characteristic curve and typical pressure drop



Characteristic curve




Pressure drop



Materials

| | Medium contacting | VTH 25 MS-180 | VTH 25 K6-180 | VTM 25 MS-180 | VTM 25 VA-180 | VTI 25 MS-180 | VTI 25 K6-180 |
|--------------------------------|-------------------|------------------------|---------------|--------------------------|------------------------|------------------------|---------------|
| Pipe section | ✓ | Brass, CW724R | PP | Brass, CW724R | Stainless steel 1.4571 | Brass, CW724R | PP |
| Turbine cage | ✓ | PPO Noryl GFN1630V | | | | PPO Noryl GFN 3V | |
| Rotor | ✓ | PPO Noryl GFN1520V | | | | PPO Noryl GFN 2V | |
| Rotor assembly | ✓ | Hard ferrite magnets | | | | Stainless steel 1.4305 | |
| Shaft | ✓ | Stainless steel 1.4539 | | | | | |
| Bearings | ✓ | Saphir / PA | | | | | |
| Housing for hall sensor | ✓ | PPO Noryl GFN 1630V | | Brass, CW602N/ CW614N | Stainless steel 1.4571 | PA66-natur | |
| O-ring | ✓ | EPDM | | | | | |
| Screen filter (option) | ✓ | Stainless steel 1.4301 | | Stainless steel 1.4301 | | | |
| Associated O-ring | | EPDM | | EPDM | | | |
| Spacer | ✓ | | PP | | | | PP |

Options and order code

| Options | |
|---|---|
| Screen filter with O-ring, in the inlet |  |
| Turbine flow transmitter, analog output 4...20 mA | Description, see page 108 |
| Turbine flow switch (contact) | Description, see page 109 |
| Version for local display TD 32500 | Description, see page 114 |

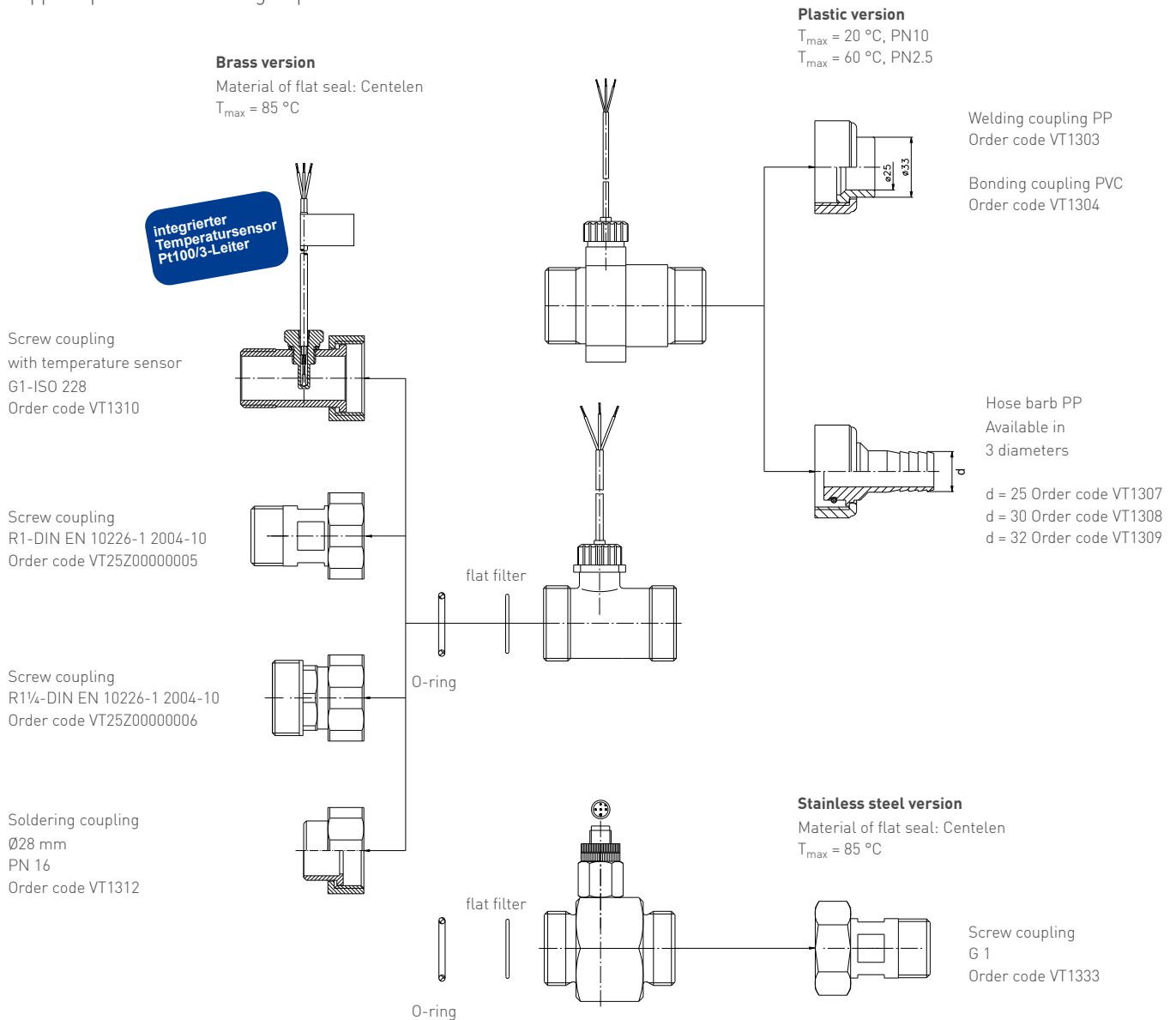
| Order example | | | VT2511 | MS | HN | P000 | F* | E* |
|---|----------|----------------|--------|----|----|------|----|----|
| Type | | | | | | | | |
| VT 25 | | | VT2511 | | | | | |
| Material of pipe section | | | | | | | | |
| Brass | | | | MS | | | | |
| Plastic PP | | | | K6 | | | | |
| Stainless steel | | | | VA | | | | |
| Version | | | | | | | | |
| VTH | Standard | 10...30 VDC | | | HN | | | |
| | Option | 4.5...26.5 VDC | | | HK | | | |
| VTM | | | | | MN | | | |
| VTI | | | | | IP | | | |
| Electrical connection | | | | | | | | |
| Cable (only VTH) | | | | | | P000 | | |
| 4 pin connector M12 x 1 (only VTM, VTI) | | | | | | S000 | | |
| Options | | | | | | | | |
| Filter | | | | | | | | |
| Flat filter (only brass or stainless steel version) | | | | | | | F | |
| None | | | | | | | 0 | |
| Electronics | | | | | | | | |
| Incl. transducer 4...20 mA | | | | | | | | |
| → Corresponds with 0...60 l/min | | | | | | | | E |
| → Corresponds with 0...100 l/min | | | | | | | | F |
| → Corresponds with 0...160 l/min | | | | | | | | G |
| Switching output VE | | | | | | | | 6 |
| Switching output VE with pulse output | | | | | | | | 7 |
| Version for local display TD 32500 (display must be ordered separately) | | | | | | | | 4 |

* If you do not require any of the options, digits of the order code do not apply.

Accessory

Connection adapters Turbotron VT 25

supplied piecewise including required seals.



Connection cable Turbotron VT 25

| Connection cable | Length | Order code | |
|--|--------|------------|--|
| Connection cable for turbine flow sensor with cable socked M12 x 1 molded lead, 4 pin, shielded, sheathing material PUR ($T_{max} = 70\text{ °C}$) UL-approval | 3 m | XVT 2053 | |
| | 5 m | XVT 2009 | |
| | 10 m | XVT 2070 | |
| 4 pin cable socket M12 x 1 angle type unassembled | | VT 1331 | |

