

# Turbine flow sensors | Turbotron | VTH25, VTM25



## Highlights – VTH25

- Cost optimized version

## Highlights – VTM25

- Pressure rating up to 50 bar

### Technical data

Type	VTH25		VTM25	
Material pipe section	Brass	Plastic PP	Brass	Stainless steel
Flow range	4...160 l/min*			
Accuracy	±5 % of of reading (up to 5 l/min 7 % of of reading)			
Repeatability	±0.5 %			
Signal output	< 1 l/min			
Medium temperature	0...85 °C**	0...80 °C** / 2 bar 0...60 °C** °C / 5 bar 0...30 °C** °C / 10 bar	0...85 °C**	
Pressure rating	PN 10		PN 50	
Nominal diameter	DN 25			
Process connection	G 1¼ male thread, supplementary screwed connection required, see accessories			
Sensor	Hall effect sensor			
Output signal	Hall effect sensor			
→ Pulse rate / K-factor	65 pulses/l			
→ Resolution	15 ml/pulse			
→ Signal shape	Square wave signal			
→ Signal current	NPN open collector Max. 19 mA			
Electrical connection	2 m PVC cable, shielded (T <sub>max</sub> = 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	
Degree of protection EN 60529	IP54			
Max. particle size in the medium	< 0.63 mm			

\* not suitable for continuous operation

\*\* non-freezing

# Options

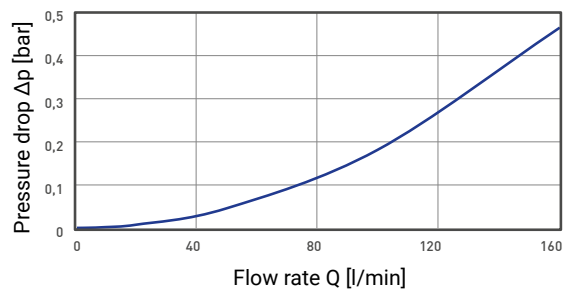
## Option

**Screen filter in the inlet**  
mesh size 0.4 mm

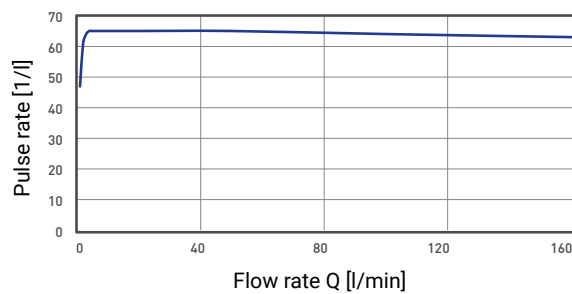


## Typical pressure drop | Characteristic curve

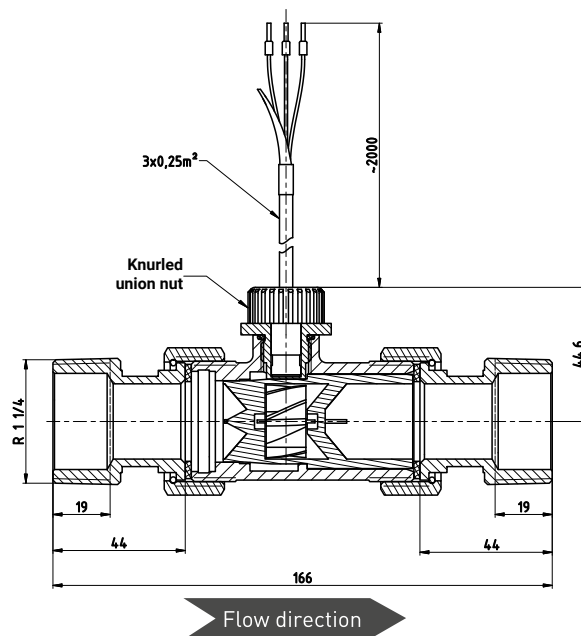
Typical pressure drop



Characteristic curve



# Technical drawing



## Materials

Materials in contact with fluid				
	VTH25 brass	VTH25 plastic PP	VTM25 brass	VTM25 stainless steel
<b>Pipe section</b>	Brass CW724R	PP	Brass CW724R	Stainless steel 1.4571
<b>Turbine cage</b>	PS-ST Xarec® 20 % glass fibre reinforced			
<b>Rotor</b>	PS-ST Xarec® 20 % glass fibre reinforced			
<b>Shaft</b>	Stainless steel 1.4539			
<b>Bearings</b>	Sapphire / PA			
<b>Housing for Hall effect sensor</b>	PS-ST Xarec® 20 % glass fibre reinforced		Brass CW602N / CW614N	Stainless steel 1.4571
<b>O-ring</b>	EPDM			
<b>Screen filter (option)</b>	Stainless steel 1.4301		Stainless steel 1.4301	
<b>Associated O-ring</b>	EPDM		EPDM	
<b>Spacer</b>		PP		

Plastic parts of VTH25 brass / stainless steel comply with KTW-guidance or. the Elastomer Guideline of the German Federal Environmental Agency

# Article numbers









Order code					
Type					
VTH25 / VTM25		VT2511			
Material of pipe section					
Brass		MS			
Plastic PP (only VTH)		K6			
Stainless steel (only VTM)		VA			
Version					
VTH25	Standard	10...30 VDC		HNP000	
	Option	4.5...26.5 VDC		HKP000	
VTM25				MNS000	
Options*					
Filter					
Screen filter (only brass or stainless steel version)				F	
None				0	
Electronics for VTM25					
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	
Example order number		VT2511	MS	HNP000	F* E*

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

BEST  
SELLER

Type	Order number
VTH25   Material of pipe section: Brass, Power supply: 10...30 VDC, without options	VT2511   MS   HNP000

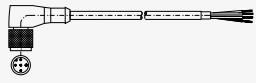

## Article numbers | Connection adapters

Order code				
Version	Connection adapters*		Order number	
<b>VT25, brass</b>		Screw coupling G 1-ISO 228 with temperature sensor Pt100 / 3-wire	Brass, Flat seal KLINGERSIL®, T <sub>max</sub> = 85 °C	VT1310
		Screw coupling R 1-DIN EN 10226-1 2004-10		VT25Z00000005
		Screw coupling R 1 1/4-DIN EN 10226-1 2004-10	Brass, Flat seal Centellen®, T <sub>max</sub> = 85 °C	VT25Z00000006
		Screw connection 1 1/4" x 28, PN16	Brass with copper internal soldering end, Flat seal KLINGERSIL®, T <sub>max</sub> = 85 °C	VT1312
<b>VT25, plastic</b>		Welding coupling PP for pipes outer diameter 25 mm	T <sub>max</sub> = 20 °C, PN 10 T <sub>max</sub> = 60 °C, PN 2.5	VT1303
		Bonding coupling PVC for pipes outer diameter 25 mm		VT1304
		Hose barb PP Ø 30 mm Ø 32 mm		VT1308 VT1309
<b>VT25, stainless steel</b>		Screw coupling R 1	Brass, Flat seal FKM, T <sub>max</sub> = 85 °C	VT1333

\* Supplied piecewise

\*\* The use of connection adapters may result in deviations in accuracy.

## Article numbers | Connection cables

Order code				
Series	Connection cables		Length	Order number
<b>VT25</b>		Connection cable for turbine flow sensor with cable socket M12 x 1 moulded lead, 4-pin, shielded, sheathing material PUR (T <sub>max</sub> = 70 °C) UL-approval	3 m 5 m 10 m	XVT2053 XVT2009 XVT2070
		4-pin cable socket M12 x 1 angle type, unassembled		VT1331