

Turbine flow sensors // Turbotron // VTH20, VTL20



Highlights – VTH20

- With protection circuit
- High resolution of output signal

Highlights – VTL20

- Cost optimized version

Technical data		
Type	VTH20	VTL20
Material pipe section	Brass	
Flow range	1...42 l/min*	
Accuracy	±1 % of range ±3 % of reading (from 15 l/min)	
Repeatability	±0.2 %	
Signal output	From 0.25 l/min	
Medium temperature	Max. 85 °C	
Pressure rating	PN 10	
Nominal diameter	DN 20	
Process connection	G 1 male thread	
Sensor	Hall effect sensor	
Output signal		
→ Pulse rate / K-factor	232 pulses/l	116 pulses/l
→ Resolution	4.3 ml/pulse	8.6 ml/pulse
→ Signal shape	Square wave signal NPN open collector	Square wave signal NPN open collector
→ Signal current	Max. 19 mA	Pulse duty ratio 50:50 Max. 10 mA
Electrical connection	2 m PVC cable, shielded (T _{max} = 75 °C)	
Power supply	10...30 VDC optional 4.5...26.5 VDC	4.5...24 VDC
Degree of protection EN 60529	IP54	
Max. particle size in the medium	< 0.63 mm	

* not suitable for continuous operation

Options

Option

Screen filter in the inlet

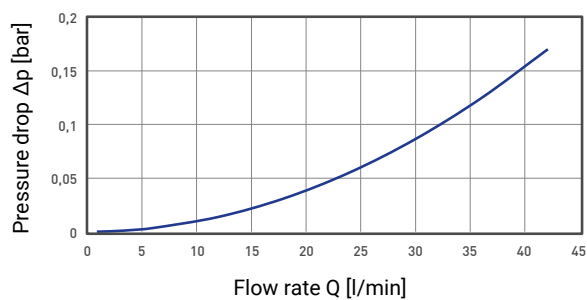
Mesh size 0.4 mm

Medium Temperature max. 60 °C

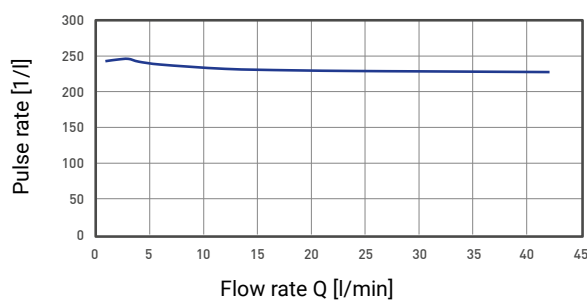


Typical pressure drop // Characteristic curve

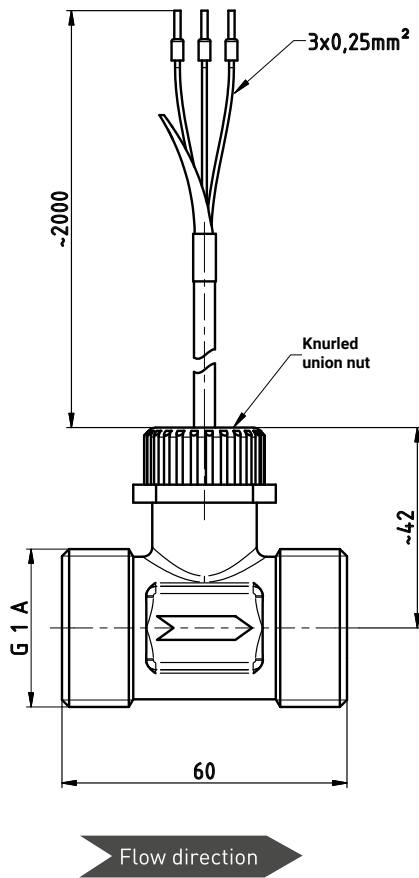
Typical pressure drop



Characteristic curve



Technical drawing



Materials

Materials in contact with fluid	
Pipe section	Brass CW724R
Turbine cage	PS-ST Xarec® 20 % glass fibre reinforced
Rotor	PS-ST Xarec® 20 % glass fibre reinforced
Shaft	Stainless steel 1.4539
Bearings	Saphire / PA
Housing for hall sensor	PS-ST Xarec® 20 % glass fibre reinforced
O-ring	EPDM
Screen filter (Option)	Stainless steel, TPE

Plastic parts comply with KTW-guidance or. the Elastomer Guideline of the German Federal Environmental Agency (does not apply for the optional screen filter).

Article numbers

Order code			
Type			
VTH20		VT2042MS	
Power supply			
Standard	10...30 VDC	HNP0A5	
Option	4.5...26.5 VDC	HKP0A5	
Option			
Screen filter			F
Example order number		VT2042MS	HNP0A5 F*

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

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Type	Order number
VTH20 Power supply: 10...30 VDC, without screen filter	VT2042MS HNP0A5

Order code			
Type			
VTL20		VT2042MSHLP0A5	
Option			
Screen filter			F
Example order number		VT2042MSHLP0A5	F*

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