



OEM Sensors for HVAC manufacturers

# POTABLE WATER



# Potable water

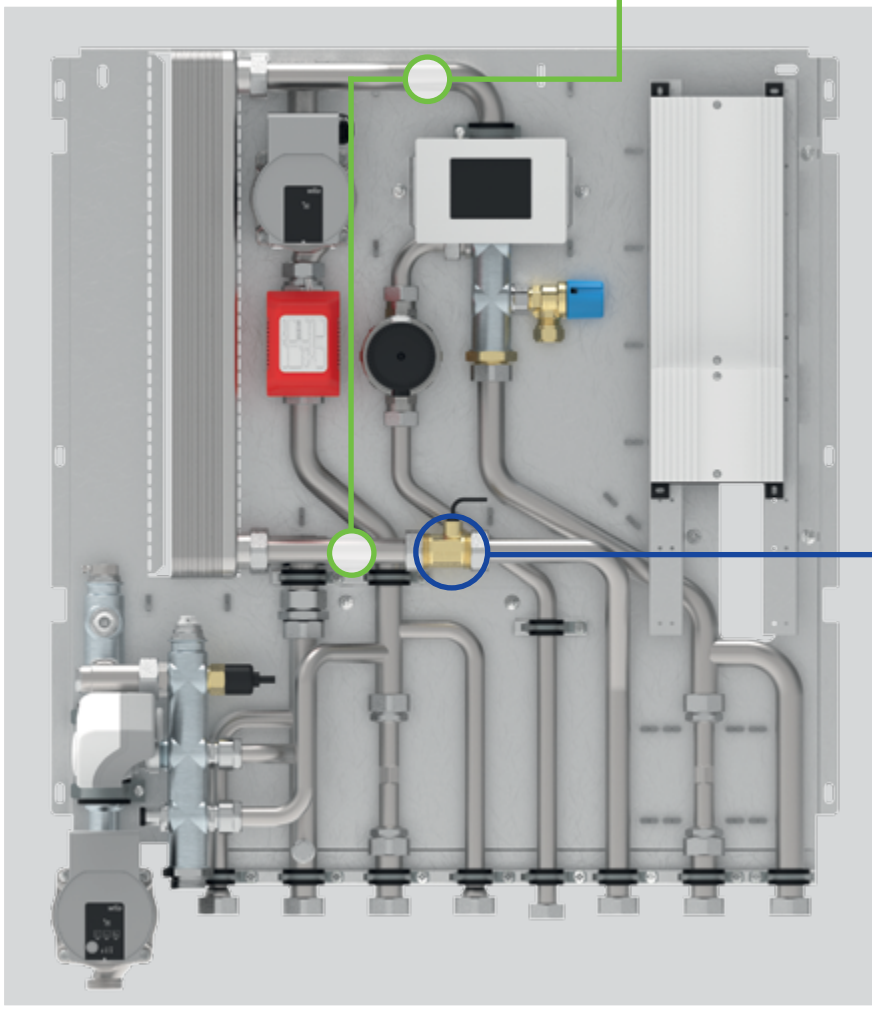
## Typical turbine flow & temperature sensor application

### Product features VTY20

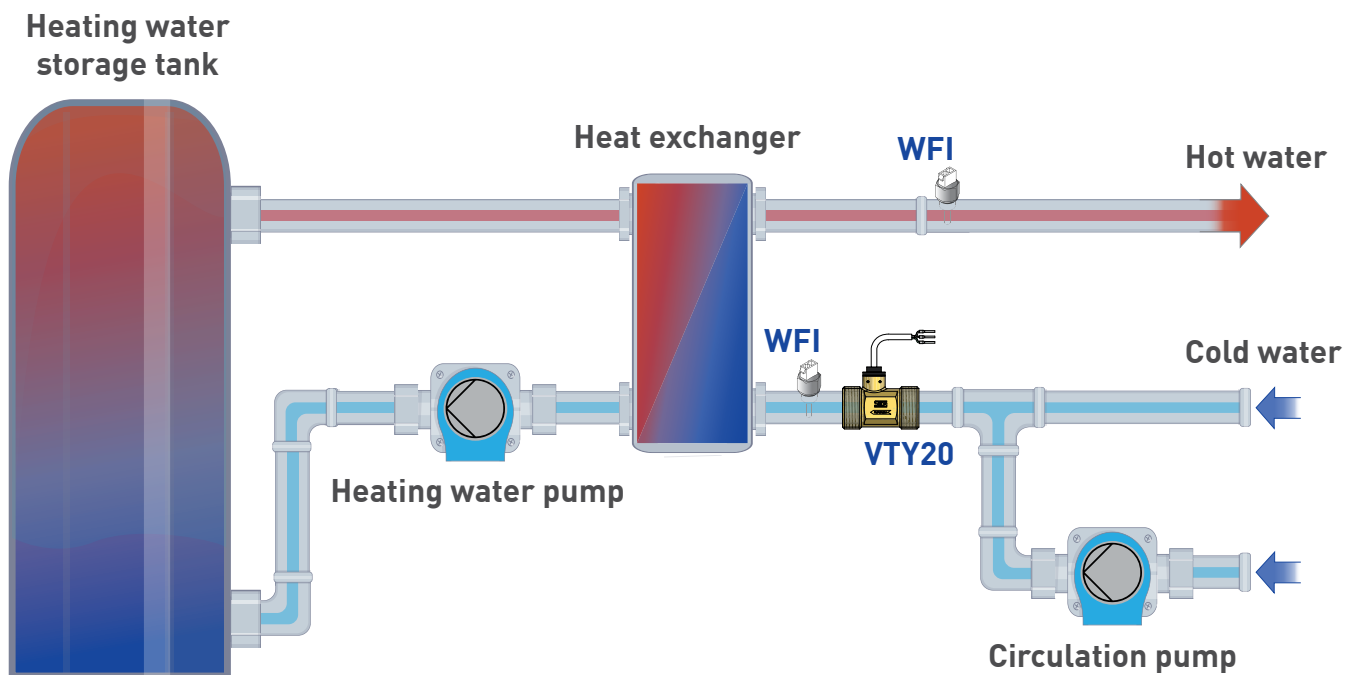
- Tap water measurement for sanitary hot water
- Turbine body made of brass
- Durable thanks to high-grade sapphire bearings
- Insensitive to pressure peaks

### Product features WFI

- Short response time
- Long-term stable
- Proven in temperature cycle tests



“ VTY20's excellent low flow performance and its wide flow range are ideal for fresh water modules. ”



## VTY20 for fresh water modules

SIKA flow sensors have a variety of different drinking water approvals. They are typically utilised in water heaters or fresh water modules to detect the demand of sanitary hot water. The most common position of installation is at the mains cold water inlet. Their rugged body provides an ideal interface to the outer plumbing.

## WFI for fresh water modules

These very fast responding temperature sensors are ideal for a fast temperature control which means more comfort for the user of the hot water. They can be placed either at the cold water inlet or at the hot water outlet.

# Potable water

## Typical turbine flow & temperature sensor application

### Product features VTY10

- Tap water measurement for potable water heating
- Turbine body made of brass or glass-fibre reinforced plastic
- Durable thanks to high-grade sapphire bearings
- Insensitive to pressure surges

### Product features WFI

- Short response time
- Long-term stable
- Proven in temperature cycle tests



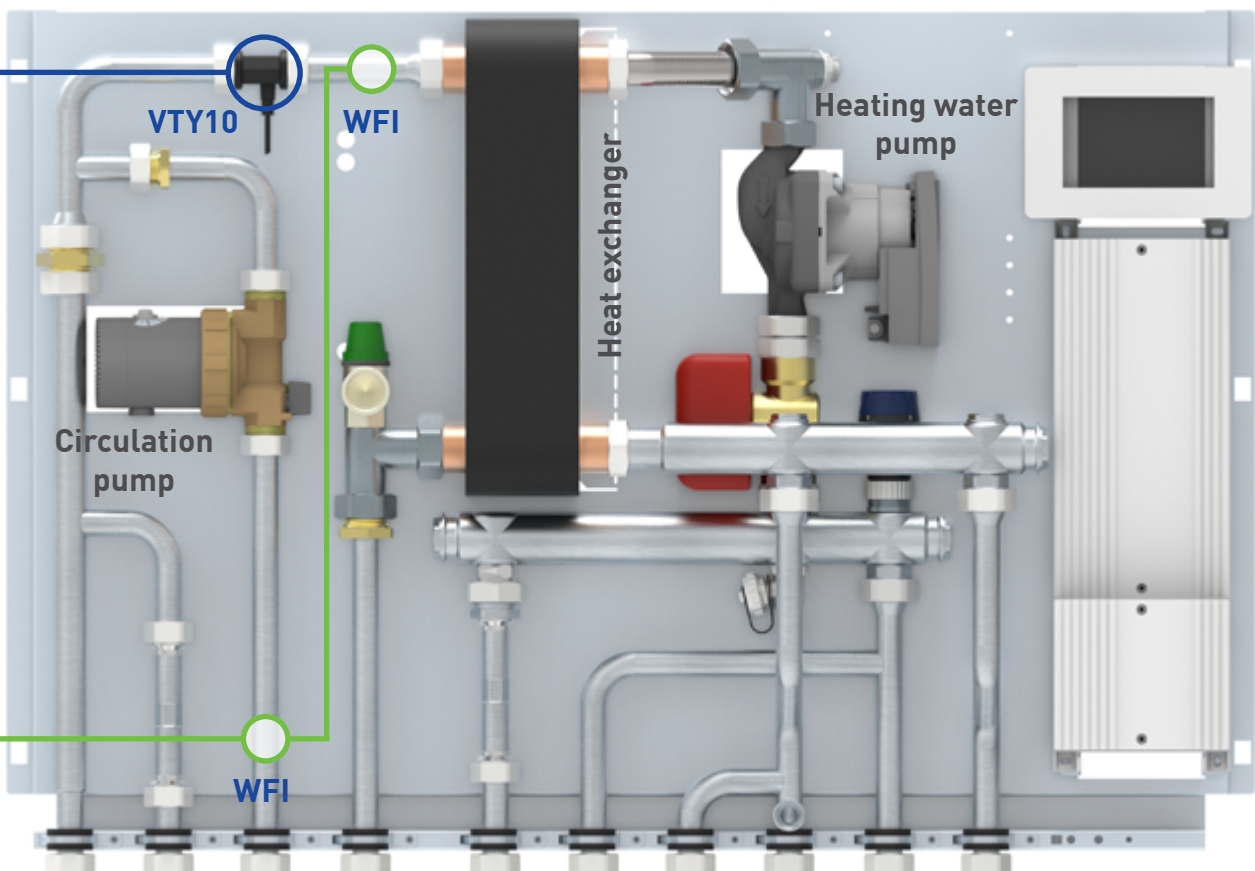
### WFI for heat interface units (HIU)

These very fast responding temperature sensors are ideal for a fast temperature control which means more comfort for the user of the hot water. They can be placed either at the cold water inlet or at the hot water outlet.

### VTY10 for heat interface units (HIU)

SIKA turbine flow sensors are widely used for tap water measurement in heat interface units (HIU). Providing an output signal from low starting flow rates this signal can then be used to control the feed pump to operate with optimal variable speed. The fast response and high resolution output from the flow sensor enables the HIU's to quickly adapt to rapid flow rate changes, which means more comfort for the user of the hot water.

“ The turbine flow sensor VTY10 is practically independent of inflow section and installation position. ”



# Potable water

## Typical push-in turbine flow application

### Product features

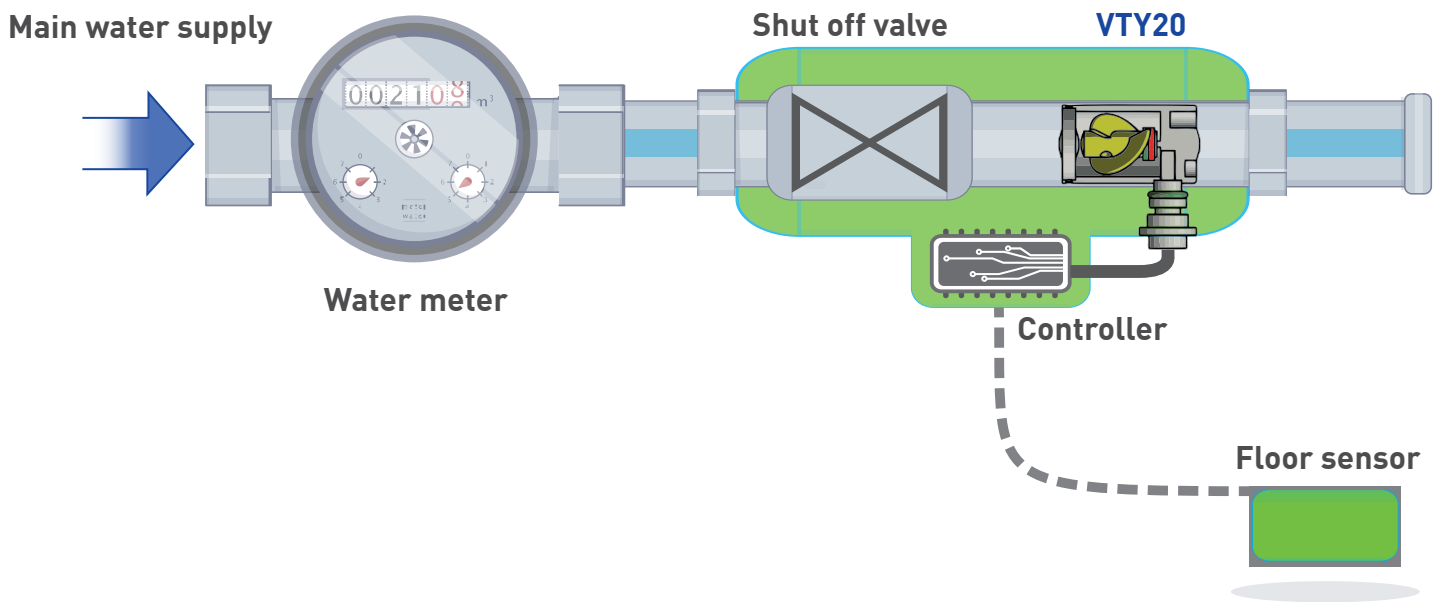
- Simple integration into valve bodies
- Comprises
  - Push-in turbine
  - Hall-effect sensor
- Separation of hydraulic and electrical components
- For water treatment equipment
- Measures lowest flow rates / leak detection



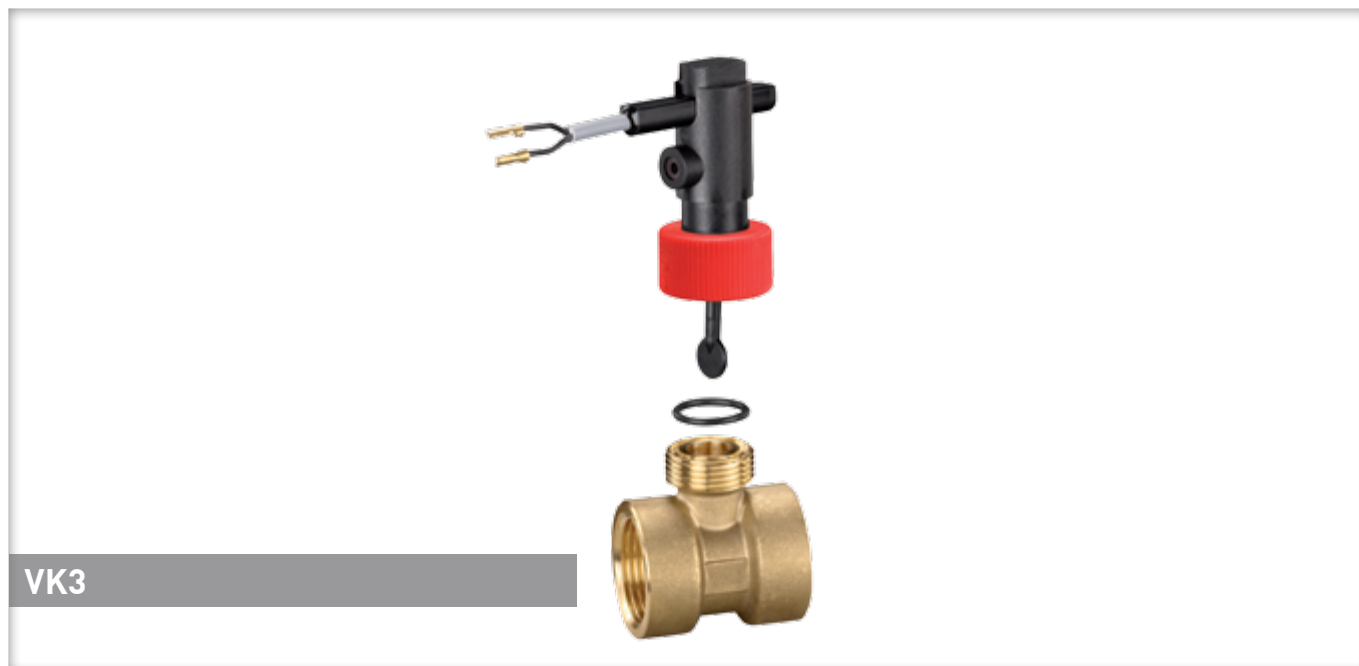
### VTY20 capsule for leak detection

These capsule flow sensors are easily integrated into bodies of domestic water treatment units. The most common application is in entry point leak detection units. The turbine flow sensor measures the incoming flow rate to one or two family homes to enable the leak detector to differ between normal consumption and burst pipes.

“ You get the VTY20 capsule flow sensor with durable sapphire bearings and multiple drinking water approvals. ”



## VK3 // with pipe tee



VK3

### Your advantages

Series	VK3
	<ul style="list-style-type: none"> <li>• Cost optimized plastic version</li> <li>• Factory set special set points for series applications</li> <li>• Brass tee DN 8...50</li> </ul>

### Technical data

<b>Switching function</b>	Contact → closes at increasing flow → opens at decreasing flow Reversing possible
<b>Pressure rating</b>	PN 10
<b>Temperature ranges</b>	
<b>Medium</b>	-25...100 °C
<b>Ambient</b>	-25...70 °C
<b>Electrical data</b>	
<b>Electrical connection</b>	1.5 m PVC jacket cable
<b>Switching current</b>	Max. 1 A
<b>Switching voltage</b>	Max. 230 VAC, 48 VDC
<b>Rating</b>	Max. 26 VA, 20 W
<b>Degree of protection EN 60529</b>	IP65
<b>Protection class EN 60730-1</b>	Class II
<b>Approvals</b>	



### Options

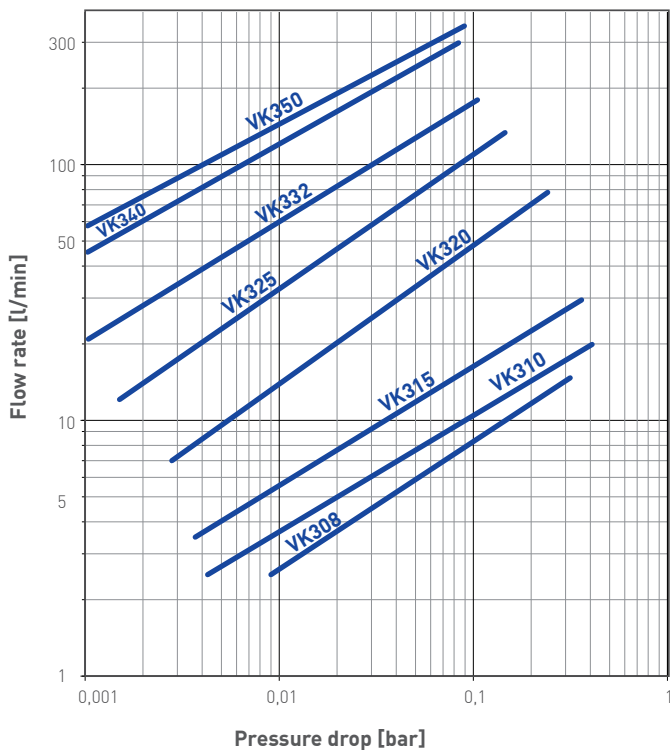
For type	On request
VK3	<ul style="list-style-type: none"> <li>→ Special setpoints</li> <li>→ 4 different colours of the union nut for distinction</li> <li>→ Recognized component ETL according to UL &amp; CSA standards</li> </ul>



Nominal diameter	Thread connection D <sub>1</sub>	Setpoint ranges [l/min]*		Max. flow rate [l/min]
		Increasing flow ON	Decreasing flow OFF	
DN 8	G <sup>1</sup> / <sub>4</sub>	2.7...3.0	2.6...2.9	15
DN 10	G <sup>3</sup> / <sub>8</sub>	3.0...3.8	2.8...3.7	20
DN 15	G <sup>1</sup> / <sub>2</sub>	3.8...5.1	3.6...4.9	30
DN 15	G <sup>1</sup> / <sub>2</sub> male	3.0...3.8	2.8...3.7	20
DN 15	G <sup>3</sup> / <sub>4</sub> male	3.0...3.8	2.8...3.7	20
DN 20	G <sup>3</sup> / <sub>4</sub>	7.2...9.0	6.9...8.7	80
DN 25	G 1	13.0...16.5	12.3...15.9	130
DN 32	G 1 <sup>1</sup> / <sub>4</sub>	16.5...21.0	16.0...20.5	180
DN 40	G 1 <sup>1</sup> / <sub>2</sub>	27.0...33.5	25.5...32.5	300
DN 50	G 2	41.5...53.5	40.6...52.8	350

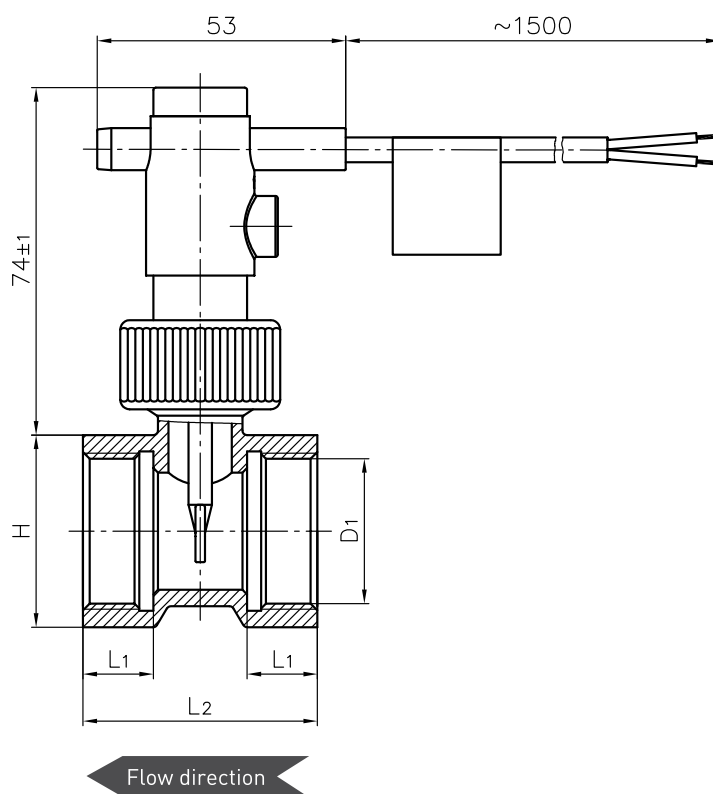
\* Water, 20 °C, horizontal pipe, tolerance ±15 %

Typical pressure drop



## Dimensions [mm]

Thread connection D <sub>1</sub>	L <sub>1</sub>	L <sub>2</sub>	H
G 1/4	11	50	27
G 3/8	11	50	27
G 1/2	11	50	27
G 1/2 male	10	60	
G 3/4 male	11	50	
G 3/4	15	50	32
G 1	15	50	41
G 1 1/4	15	50	48
G 1 1/2	15	50	55
G 2	22	64	70



## Materials in contact with fluid

Body, Paddle	PPE+PS Noryl™ 30 % glass fibre reinforced
Pipe tee	Brass CW617N
Pin*	Stainless steel 1.4571
Magnet	Hard ferrite
O-ring	NBR

\* only VK340 and VK350

Order code		
Nominal diameter	Thread connection	Order number
DN 8	G ¼	VK308M0P10PI11
DN 10	G ⅜	VK310M0P10PI21
DN 15	G ½	VK315M0P10PI31
DN 15	G ½ male	VK315M0P10PA31
DN 15	G ¾ male	VK315M0P10PA41
DN 20	G ¾	VK320M0P10PI41
DN 25	G 1	VK325M0P10PI51
DN 32	G 1¼	VK332M0P10PI61
DN 40	G 1½	VK340M0P10PI71
DN 50	G 2	VK350M0P10PI81

## VKX15 // with pipe tee



### VKX15

#### Your advantages

<b>Series</b>	<b>VKX15</b>
	<ul style="list-style-type: none"> <li>• Cost optimized version</li> <li>• Pipe tee with threaded or soldering ends</li> </ul>

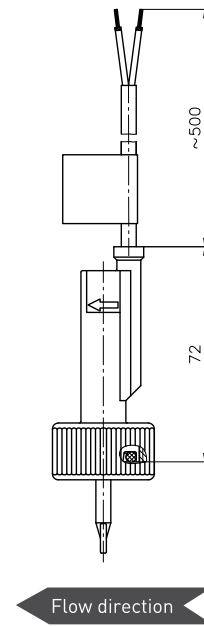
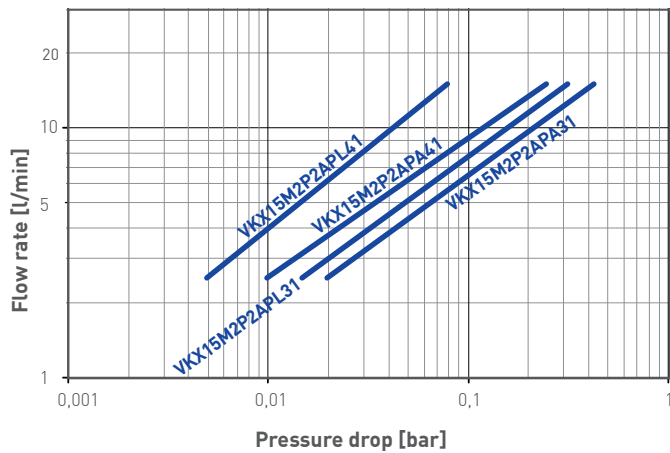
#### Technical data

<b>Switching function</b>	Contact closes at increasing flow
<b>Setpoint</b>	2.5 ±0.5 l/min*
<b>Max. flow rate</b>	
→ Pipe tee G $\frac{1}{2}$ male	40 l/min
→ Pipe tee G $\frac{3}{4}$ male	18 l/min
→ Pipe tee 15 mm soldering connection	40 l/min
→ Pipe tee 22 mm soldering connection	34 l/min
<b>Nominal diameter</b>	DN 15
<b>Pressure rating</b>	PN 10
<b>Temperature ranges</b>	
<b>Medium</b>	-20...100 °C
<b>Ambient</b>	-20...70 °C
<b>Electrical data</b>	
<b>Electrical connection</b>	0.5 m PVC jacket cable
<b>Degree of protection EN 60529</b>	IP65
<b>Max. Switching current</b>	Max. 1 A
<b>Max. Rating</b>	Max. 26 VA, 20 W
<b>Max. Switching voltage</b>	230 VAC, 48 VDC or 24 VAC, 42 VDC
<b>Protection class EN 60730-1</b>	Class II or Class III
<b>Approvals **</b>	

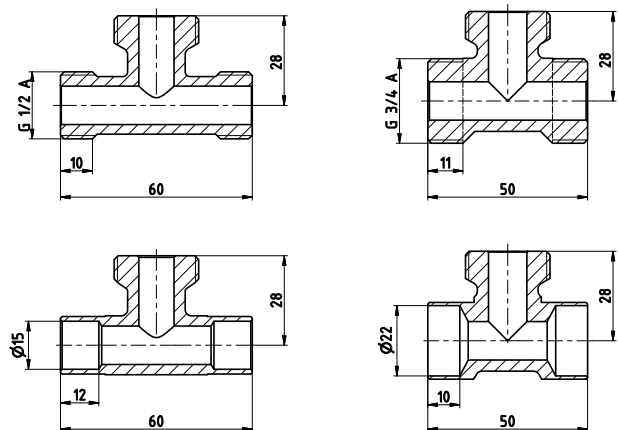


\* Water, 20 °C, horizontal pipe, other setpoints on request

Typical pressure drop



Materials in contact with fluid	
Body	PPE+PS Noryl™ 30 % glass fibre reinforced
Paddle	PPE+PS Noryl™ 30 % glass fibre reinforced
Pin	Stainless steel 1.4571
Magnet	Hard ferrite
O-ring	EPDM
Pipe tee	Brass CW617N



Order code		
<b>Type</b>		
VKX15		VKX15M2P2
<b>Switching voltage</b>		
230 VAC, 48 VDC		AP
24 VAC, 42 VDC		BP
<b>Process connection</b>		
Pipe tee G 1/2 male		A31
Pipe tee G 3/4 male		A41
Pipe tee 15 mm soldering connection		L31
Pipe tee 22 mm soldering connection		L41
<b>Example order code</b>	VKX15M2P2	AP A31

VVX



VVX20

BEST  
SELLER

VVX20 QuickFasten

BEST  
SELLER

## Your advantages

Series	VVX
	<ul style="list-style-type: none"> <li>• No mechanical wear → Flow sensor for liquids with no moving parts</li> <li>• Highest strength and performance → Rugged glass fibre reinforced plastic</li> <li>• Completely encapsulated piezoceramic sensor to detect the vortices → No direct contact with the medium</li> <li>• Wide measuring span (up to 1:21), integrated temperature sensor, high interference resistance,</li> <li>• wetted parts metal-free, traceability by serial number, thread connection or QuickFasten</li> </ul>

Technical data	VVX15	VVX20	VVX25
Nominal diameter	DN 15	DN 20	DN 25
Process connection	G¾-ISO 228 male, incl. O-rings	QuickFasten or G1-ISO 228 male, incl. O-rings	G 1¼-ISO 228 male, incl. O-rings
Inner diameter	Ø 13 mm	Ø 19 mm	Ø 25 mm
Flow range	2...40 l/min	5...80 l/min	7...150 l/min
Accuracy	±2 % of range*, deviations with high viscous media		
Repeatability	±0,5 % or ±1 %, see temperature ranges ambient		
Medium	Water and aqueous solution		
Pressure rating	PN 10		
Degree of protection EN 60529	IP65*** and IP67***		
Temperature ranges			
Medium	5...90 °C, -20...90 °C**		
Ambient	5...70 °C → Repeatability ±0,5 %, -20...5 °C → Repeatability ±1 %		
Electrical data			
Electrical connection	5-pin plug connector M12 x 1		
Power supply	8...30 V DC or 5 V DC (±5 %) or 12...24 VDC****		
Current consumption	< 15 mA		
Approvals			
	WRAS pending		
Option			
	Recognized component ETL according to UL und CSA Standards		

Three different versions available:

- Frequency output (1)
- Analogue 0.5...3.5 V and frequency output (2)
- Analogue 0...10 V or 4...20 mA and frequency output (3)

Frequency output (1)	VVX15	VVX20	VVX25
<b>Output signal flow</b>	Frequency signal, square wave, pulse duty ratio 50:50, signal current max. 20 mA		
<b>Pulse rate</b>	500 1/l (optional 3...1000 1/l)	200 1/l (optional 2...800 1/l)	100 1/l (optional 1...500 1/l)
<b>Output signal temperature</b>	Pt1000 2 wire, class B or NTC 10.74k, B 0/100 3450 or none		

Analogue output (2)	VVX15	VVX20	VVX25
<b>Output signal flow</b>	0.5...3.5 V		
<b>Scaling</b>	2...40 l/min	5...80 l/min	7...150 l/min
<b>Voltage rate</b> → 0.5...3.5 V	0.07895 V / l/min	0.04000 V / l/min	0.02098 V / l/min
<b>Output signal temperature</b>	Voltage signal 0.5...3.5 V corresponds to 0...90 °C or Pt1000 2 wire, class B or NTC 10.74k, B 0/100 3450 or none		

Analogue output (3)	VVX15	VVX20	VVX25
<b>Output signal flow</b>	0...10 V or 4...20 mA		
<b>Scaling</b>	0...40 l/min	0...80 l/min	0...150 l/min
<b>Voltage rate</b> → 0...10 V	0.25000 V / l/min	0.12500 V / l/min	0.06667 V / l/min
<b>Current rate</b> → 4...20 mA	0.40000 mA / l/min	0.20000 mA / l/min	0.10667 mA / l/min

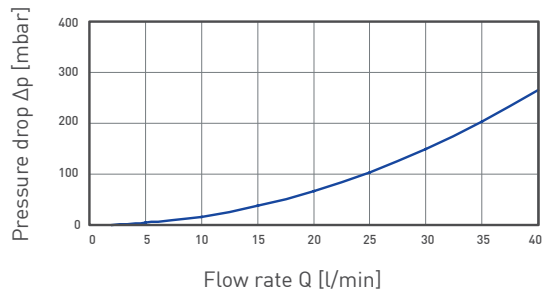
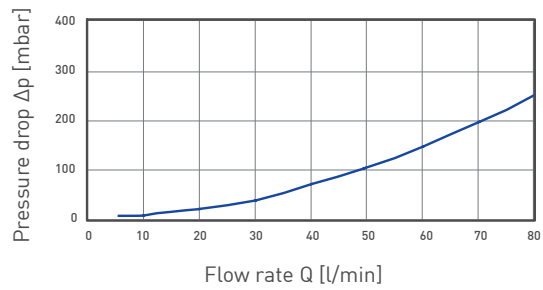
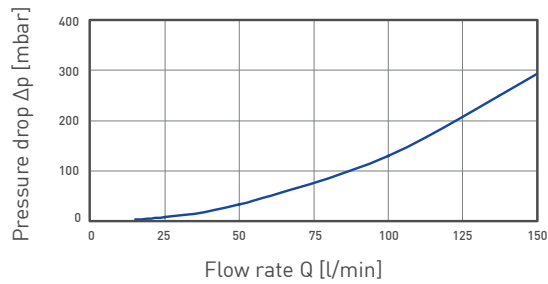
\* Test conditions:

- Test medium water
- Media temperature 20...30 °C
- Inlet pressure 7...10 bar
- Defined inlet and outlet pipes (see operating manual)

\*\*\* With attached cable socket only

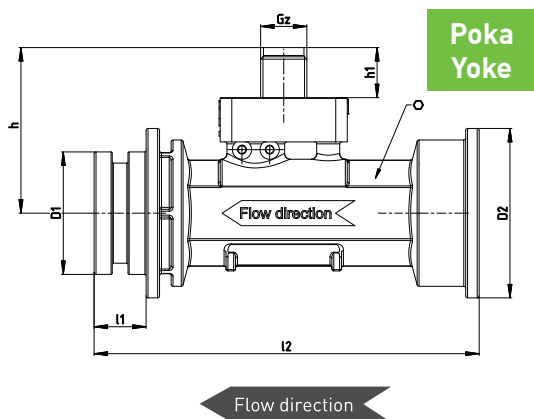
\*\*\*\* Only available for output signal flow 4...20 mA and 0...10 V

\*\* Temperature cycle test: -20 °C / 70 °C, 0 % rH, cycle time 1.5 h, temperature gradient approx. 2.5 K/min, hold time at -20 °C and 70 °C 10 min each, 90 cycles: no failures

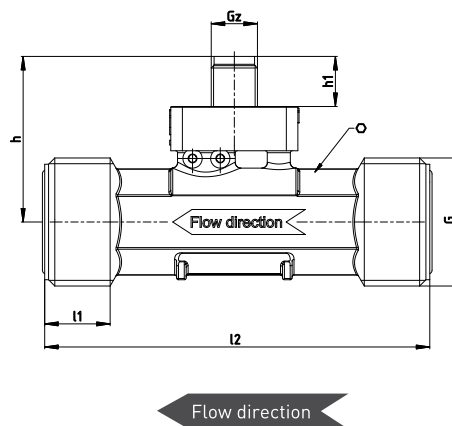
**Typical pressure drop VVX15****Typical pressure drop VVX20****Typical pressure drop VVX25**



VVX20 QuickFasten



VVX threaded versions



Dimensions [mm]	h	h1	D1	D2	l1	l2	G	Gz	○ Width across flats
<b>Threaded version</b>									
VVX15	40	13			16,5	80	G ¾	M12 x 1	19
VVX20	43	13			16.5	100	G 1	M12 x 1	24
VVX25	46	13			16.5	95	G 1¼	M12 x 1	30
<b>Quickfasten</b>									
VVX20	43	13	31.8	44	13.5	100		M12 x 1	24

<b>Materials in contact with media</b>	
<b>VVX15, VVX20, VVX25</b>	
<b>Body /tube</b>	PPS Fortron® 40 % glass fibre reinforced
<b>Sensor</b>	ETFE Tefzel®
<b>O-rings</b>	EPDM

## Version frequency output

Order code						
Nominal diameter						
DN 15	VXA1S		A			514
DN 20 QuickFasten	WXC9S		B			52P
DN 20 G1	WXC9S		B			527
DN 25	WXB2S		B			516
Power supply						
8...30 V DC		G			1	
5 V DC		P			2	
Output signal temperature						
Pt1000				RRRP		
NTC 10.74K				RRRN		
None				0000		
Example order number		VXA1S	G	A	RRRP	1 514

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Type		Order number				
VVX15	DN 15, power supply 8...30 VDC, output signal temperature Pt1000	VVXA1S	G	A	RRRP	1 514
VVX20	DN 20 G1, power supply 5 VDC, without output signal temperature	VVXC9S	P	B	0000	2 527
VVX25	DN 25, power supply 8...30 VDC, output signal temperature Pt1000	VVXB2S	G	B	RRRP	1 516

## Version analogue output (0.5...3.5 V) and frequency output

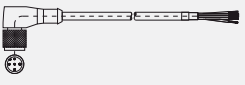













Order code						
Nominal diameter						
DN 15	VXA1SNA	U1				514
DN 20 QuickFasten	WXC9SNB	UC				52P
DN 20 G1	WXC9SNB	UC				527
DN 25	WXB2SNB	U2				516
Output signal temperature						
0.5...3.5 V*				U1		
Pt1000*				RP		
NTC 10.74K*				RN		
none				00		
Power supply						
8...30 V DC					1	
5 V DC					2	
Example order number		VVXA1SNA	U1	U1	1	514

## Version analogue output (0...10 V or 4...20 mA) and frequency output

Order code			
Nominal diameter			
DN 15	VXA1SGA		K003514
DN 20 QuickFasten	VXC9SGB		N00352P
DN 20 G1	VXC9SGB		N003527
DN 25	VXB2SGB		L003516
Output signal flow			
0...10 V		V	
4...20 mA		A	
<b>Example order number</b>	<b>VVXA1SGA</b>	<b>V</b>	<b>K003514</b>

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Type		Order number		
<b>VVX15</b>	DN 15, output signal flow 4...20 mA	<b>VVXA1SGA</b>	<b>A</b>	<b>K003514</b>
<b>VVX20</b>	DN 20 G1, output signal flow 4...20 mA	<b>VVXC9SGB</b>	<b>A</b>	<b>N003527</b>
<b>VVX25</b>	DN 25, output signal flow 4...20 mA	<b>VVXB2SGB</b>	<b>A</b>	<b>L003516</b>

Order code				
Type	Accessories		Length	Order number
VWX15 VWX20 VWX25		Connection cable with 5 pin cable socket M12 x 1, angle type molded lead 5 x 0.34 mm², sheathing material PVC (Tmax = 80 °C)*	1 m	XVWX040
			2 m	XVWX051
			3 m	XVWX039
			5 m	XVWX041
			10 m	XVWX042
		Connection cable with 5 pin cable socket M12 x 1, molded lead 5 x 0.34 mm², sheathing material PVC, 4 pin Molex MicroBlade wire-to-board housing, (Tmax = 80 °C)	1.5 m	XVWX065
Type	Accessories		Order number**	
VWX15		Screw coupling G 1/2, brass	BVWX1007	
		Soldering coupling Ø 15 mm, brass	BVWX1008	
VWX20		O-ring for QuickFasten, EPDM	XVWX061	
		Joint clip QuickFasten, stainless steel	XVWX052	
		Soldering coupling for QuickFasten, inlet side	BVWX1012	
		Soldering coupling for QuickFasten, outlet side	BVWX1011	
		Screw coupling G 1***, brass, compatibility type	BVWX1021	
VWX25		Screw coupling R1, brass	BVWX1003	
		Soldering coupling Ø 28 mm, brass	BVWX1004	
		Bonding coupling Ø 25 mm, PVC	BVWX1005	
		Screw coupling G 1, stainless steel 1.4571	BVWX1006	
		Screw coupling G 1 1/4***, brass, compatibility type	BVWX1022	

\* Connection cable with UL approval on request

\*\* Supplied piecewise

\*\*\* Two pieces are required for the assembly



# VTY10



VTY10, brass



VTY10, plastic

## Your advantages

Series	VTY10
	<ul style="list-style-type: none"> <li>• Low wear and extremely long durability due to high quality bearing</li> <li>• Practically no deviation in mass production due to fixed pulse rate, insensitive against water hammers</li> <li>• Threaded connection or QuickFasten, proven in numerous mass production applications</li> <li>• High measuring accuracy, mostly independent of fitting position due to integrated flow straightener</li> </ul>

Technical data	VTY10 threaded	VTY QuickFasten
Material pipe section	Brass	Plastic
Flow range	1...30 l/min	
Accuracy	±1 % of range	
Repeatability	±1 %	
Signal output	From 0.7 l/min	From 0.6 l/min
Medium temperature	0...90 °C (non-freezing), temporary 95 °C	0...85 °C (non-freezing), temporary 95 °C
Ambient temperature	0...70 °C	
Pressure rating	PN 16	PN 10
Nominal diameter	DN 10	
Process connection	G½ male thread	G¾ male thread
Sensor	Hall effect sensor	
Output signal	Square wave frequency signal, NPN open collector	
Pulse duty ratio	50:50	
Pulse rate / K-factor	495 pulses/l	530 pulses/l
Electrical connection	80 mm (QuickFasten 90 mm) single wire with Molex Mini-Fit® Jr. plug connector (part number 39-01-4036)	
	Optional: PVC-cable (1 m), optional single wires	Optional: Single wires (145 mm)
Power supply	4.5...24 VDC	

## Approvals



NSF/ANSI 372  
NSF/ANSI 61

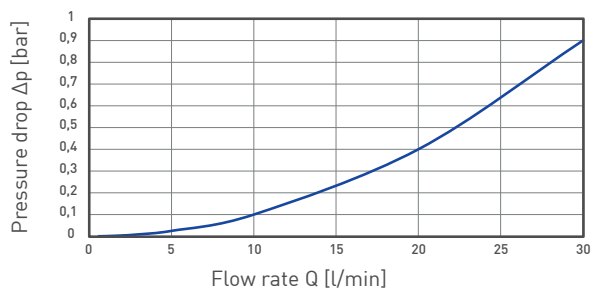


### Available for:

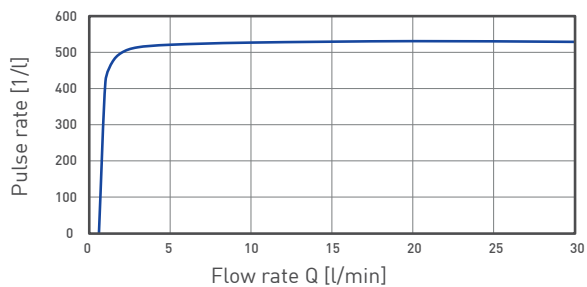
VY1030MKHNX1N3, VY1030MKHN10N3  
VY1030K5HNX1A4, VY1030K5HN10A4

Version with G-thread on request

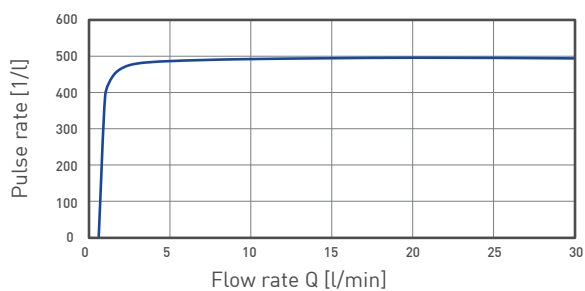
### Typical pressure drop



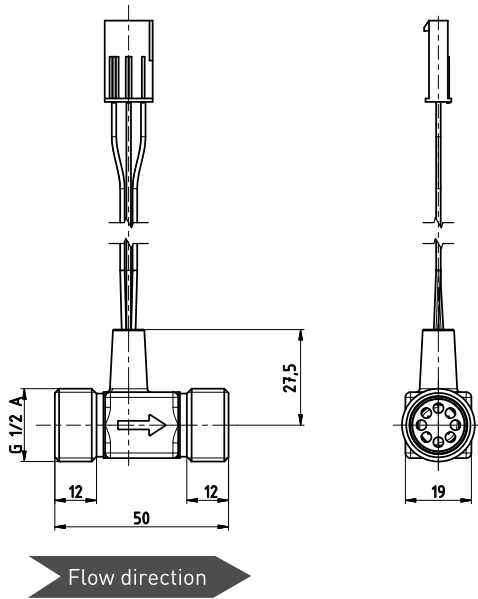
### Characteristic curve, plastic



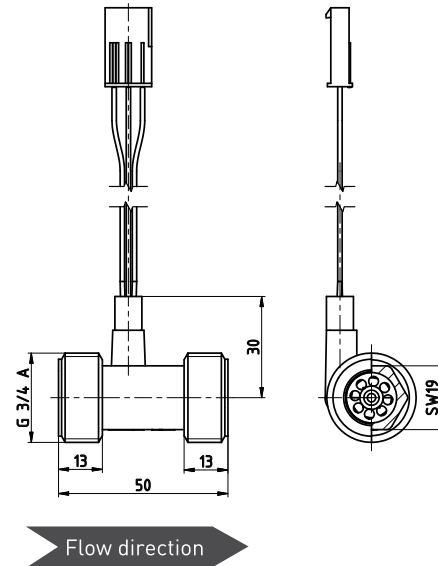
### Characteristic curve, brass



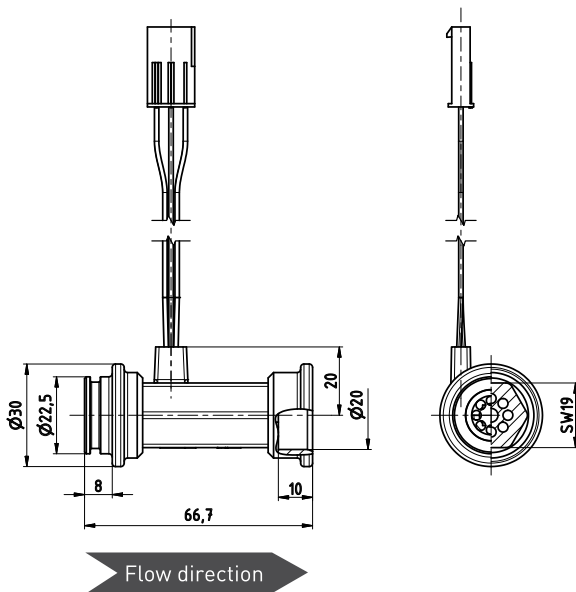
## Threaded version, brass



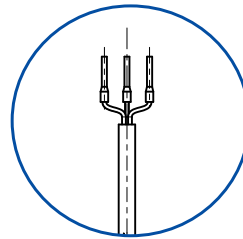
## Threaded version, plastic



## QuickFasten, plastic



## Alternative electrical connection



## Materials in contact with fluid

Type	VTY10, brass	VTY10, plastic
Pipe section	Brass CW617N	PPE+PS Noryl™ 30 % glass fibre reinforced
Rotor	PPE+PS Noryl™ 30 % glass fibre reinforced	
Magnet	Hard ferrite	
Shaft	Stainless steel / Hard metal	
Axial bearing	Saphir	
Radial bearing	PEEK Victrex™	



Order code		
<b>Type</b>		
VTY10, brass	VY1030MAHN	
<b>Electrical connection</b>		
80 mm single wire with Molex Mini-Fit® Jr. plug connector		X1A3
1 m PVC-cable		10A3
<b>Example order number</b>	<b>VY1030MAHN</b>	<b>X1A3</b>

Order code		
<b>Type</b>		
VTY10, plastic	VY1030K5HN	
<b>Electrical connection</b>		
1 m PVC-cable, threaded		10A4
80 mm single wire with Molex Mini-Fit® Jr. plug connector, threaded		X1A4
145 mm single wires, QuickFasten		P0Q1
90 mm single wires mit with Molex Mini-Fit® Jr. plug connector, QuickFasten		X2Q1
<b>Example order number</b>	<b>VY1030K5HN</b>	<b>10A4</b>

# VTY20



## VTY20

### Your advantages

Series	VTY20
	<ul style="list-style-type: none"> <li>• Low wear and extremely long durability due to high quality bearing</li> <li>• Practically no deviation in mass production due to fixed pulse rate, wide measuring span (up to 1:60),</li> <li>• Insensitive against water hammers, proven in numerous mass production applications</li> <li>• High measuring accuracy, mostly independent of fitting position due to integrated flow straightener</li> </ul>

### Technical data

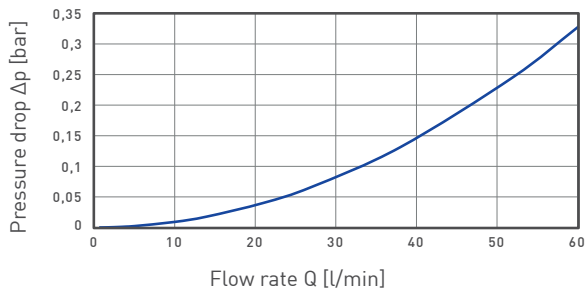
<b>Material pipe section</b>	Brass	Stainless steel
<b>Flow range</b>	1...60 l/min	
<b>Accuracy</b>	±1 % of range ±1 % of reading	
<b>Repeatability</b>	±1 %	
<b>Signal output</b>	From 0.8 l/min	
<b>Medium temperature</b>	0...90 °C	
<b>Ambient temperature</b>	0...70 °C	
<b>Pressure rating</b>	PN 16	
<b>Nominal diameter</b>	DN 20	
<b>Process connection</b>	G 1 male thread	
<b>Sensor</b>	Hall effect sensor	
<b>Output signal</b>	Square wave - frequency signal, NPN open collector	
<b>Pulse duty ratio</b>	50:50	
<b>Pulse rate / K-factor</b>	119 pulses/l	122 pulses/l
<b>Electrical connection</b>	80 mm single wire with Molex Mini-Fit® Jr. plug connector (part number 39-01-4036) optional: 0.5 m PVC cable	2 m PVC cable
<b>Power supply</b>	4.5...24 VDC	
<b>Pressure drop</b>	0.33 bar (at Q = 60 l/min)	

### Approvals

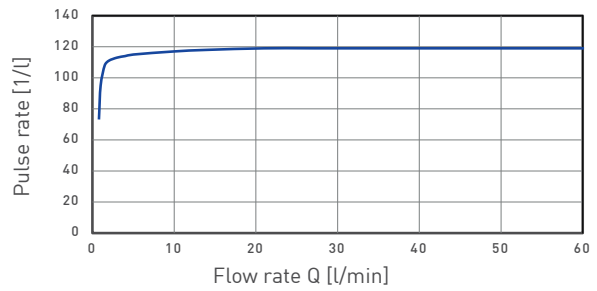
		
	<b>Available for:</b> VY2060MKHNX1N5 VY2060MKHN05N5 Version with G-thread on request	

Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

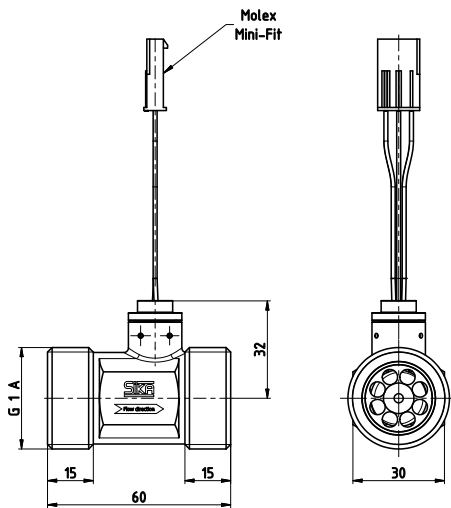
**Typical pressure drop**



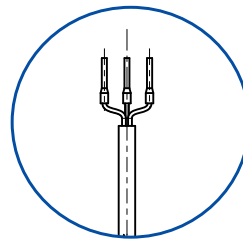
**Characteristic curve**



**VTY20**



**Alternative electrical connection**



Materials in contact with fluid	
<b>Pipe section</b>	Brass CW617N or stainless steel 1.4308
<b>Turbine cage</b>	PPE+PS Noryl™ 30 % glass fibre reinforced
<b>Rotor</b>	PPE+PS Noryl™ 30 % glass fibre reinforced
<b>Magnet</b>	Hard ferrite
<b>Shaft</b>	Stainless steel 1.4305 / Tungsten carbide
<b>Axial bearing</b>	Sapphire
<b>Radial bearing</b>	PEEK Victrex™
<b>O-ring</b>	EPDM

Order code		
<b>Type</b>		
VTY20, brass		VY2060MAHN
VTY20, stainless steel		VY2060VAHN
<b>Electrical connection</b>		
80 mm single wire with Molex Mini-Fit® Jr. plug connector		X1A5
0.5 m PVC cable		05A5
2 m PVC cable		20A5
<b>Example order number</b>	<b>VY2060MAHN</b>	<b>X1A5</b>

## Push-in flow sensors // VTY10



VTY10

### Your advantages

Series	VTY10
	<ul style="list-style-type: none"> <li>• Low deviation in mass production, fixed pulse rate</li> <li>• High measuring accuracy</li> <li>• Low wear and extremely long durability due to high quality bearing</li> <li>• Compact dimensions, proven in numerous mass production applications</li> </ul>

### ① Push in turbine

Flow range	1...30 l/min
Accuracy	±1 % of range
Repeatability	±1 %
Signal output	From 0.7 l/min
Medium temperature	Max. 85 °C, temporary 95 °C
Nominal diameter	DN 10

### Approvals



NSF/ANSI 372  
NSF/ANSI 61



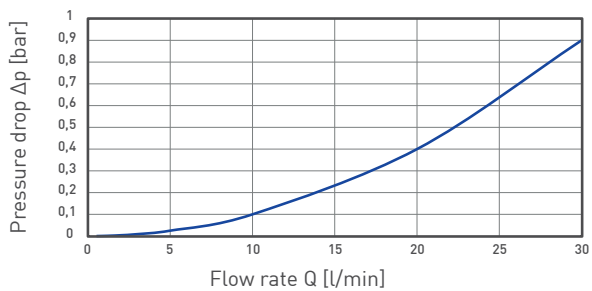
**Available for:**  
VY1030K50000YY

### ② Hall effect sensor

Nominal pulse rate	495 pulses / l
Frequency output	NPN open collector
Power supply	4.5...24 VDC
Electrical connection	0.5 m PVC cable optional: 1 m PVC cable

Stated values may vary depending on geometry of fittings.

**Typical pressure drop\***

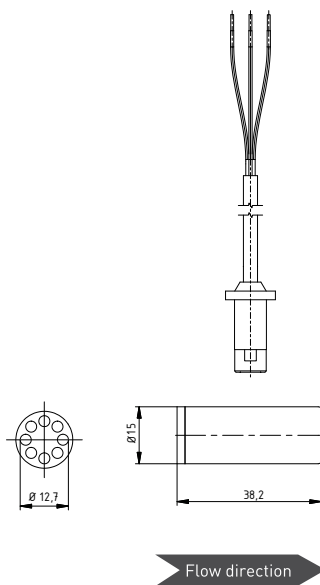


\* determined in SIKA pipe tee

**VTY10**

Materials in contact with fluid	
<b>Push in turbine</b>	
Turbine body	PPE+PS Noryl™ 30 % glass fibre reinforced
Rotor	PPE+PS Noryl™ 30 % glass fibre reinforced
Magnet	Hard ferrite
Shaft	Stainless steel / Hard metal
Axial bearing	Sapphire
Radial bearing	PEEK
<b>Adapter sleeve for Hall effect sensor</b>	
Adapter sleeve	PS-ST Xarec® 20 % glass fibre reinforced
O-ring	EPDM

Order code	
Component	Order number
Push in turbine	VY1030K50000YY
Hall effect sensor	
→ 0.5 m PVC cable	VY1030K8HN05YY
→ 1 m PVC cable	VY1030K8HN10YY



## Push-in flow sensors // VTY20



**VTY20**

### Your advantages

Series	VTY20
	<ul style="list-style-type: none"> <li>• Low deviation in mass production, fixed pulse rate</li> <li>• High measuring accuracy</li> <li>• Low wear and extremely long durability due to high quality bearing</li> <li>• Compact dimensions, proven in numerous mass production applications</li> </ul>

#### 1 Push in turbine

<b>Flow range</b>	1...60 l/min
<b>Accuracy</b>	±1 % of range ±1 % of reading
<b>Repeatability</b>	±1 %
<b>Signal output</b>	From 0.8 l/min
<b>Medium temperature</b>	0...90 °C
<b>Nominal diameter</b>	DN 20

#### Approvals



NSF/ANSI 372  
NSF/ANSI 61



**Available for:**  
VY2060K50000YY

Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

Stated values may vary depending on geometry of fittings.

\* O-ring included

#### 2 Hall effect sensor\*

<b>Nominal pulse rate</b>	119 Pulse/l
<b>Frequency output</b>	NPN open collector
<b>Power supply</b>	4.5...24 VDC
<b>Electrical connection</b>	80 mm single wire with Molex Mini-Fit® Jr. plug connector (part number 39-01-4036) optional: 0.5 m PVC cable
<b>Pressure rating</b>	PN 16

#### Approvals



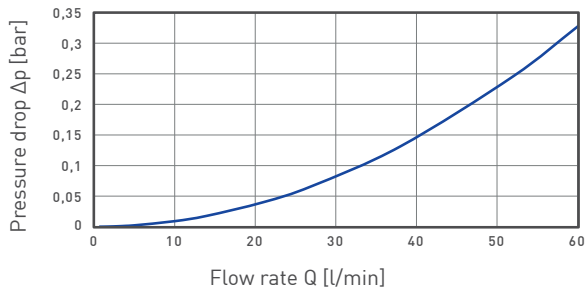
NSF/ANSI 372  
NSF/ANSI 61



**Available for:**  
VY2060K5HNN1YY  
VY2060K5HNN05YY

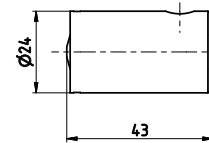
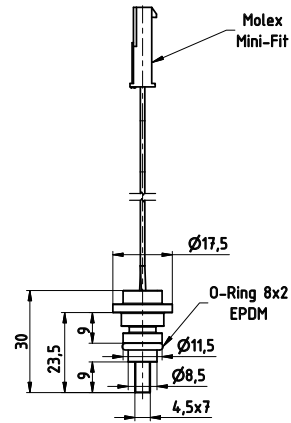
Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

**Typical pressure drop\***

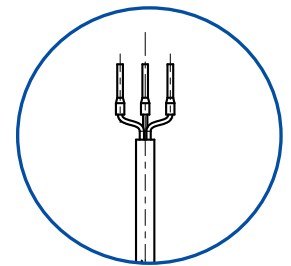


\* determined in SIKA pipe tee

**VTY20**



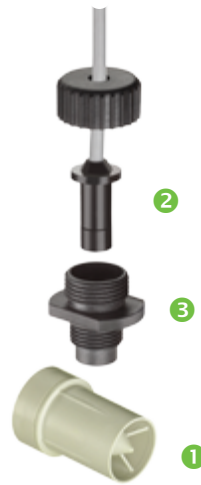
**Alternative electrical connection**



Materials in contact with fluid	
<b>Push in turbine</b>	
<b>Turbine body</b>	PPE+PS Noryl™ 30 % glass fibre reinforced
<b>Rotor</b>	PPE+PS Noryl™ 30 % glass fibre reinforced
<b>Magnet</b>	Hard ferrite
<b>Shaft</b>	Stainless steel 1.4305 / Hard metal
<b>Axial bearing</b>	Sapphire
<b>Radial bearing</b>	PEEK Victrex™
<b>Adapter sleeve for Hall effect sensor</b>	
<b>Adapter sleeve</b>	PPE+PS Noryl™ 30 % glass fibre reinforced
<b>O-ring</b>	EPDM

Order code	
Component	Order number
<b>Push in turbine</b>	VY2060K50000YY
<b>Hall effect sensor</b>	
→ 80 mm single wire	
with Molex Mini-Fit® Jr. plug connector	VY2060K5HNX1YY
→ 0.5 m PVC cable	VY2060K5HN05YY
→ 1 m PVC cable	VY2060K5HN10YY

## Push-in flow sensors // VTH20



VTH20

### Your advantages

**Series** VTH20

- Low deviation in mass production, fixed pulse rate, low start-up
- High measuring accuracy, compact dimensions
- Proven in numerous mass production applications

#### ① Push in turbine

<b>Flow range</b>	1...42 l/min*
<b>Accuracy</b>	±1 % of range, ±3 % of reading (from 15 l/min)
<b>Repeatability</b>	±0.2 %
<b>Signal output</b>	From 0.33 l/min
<b>Medium temperature</b>	Max. 85 °C
<b>Nominal diameter</b>	DN 20

#### Approvals

Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

Stated values may vary depending on geometry of fittings.

\* not suitable for continuous operation

\*\* Union nut included

\*\*\* O-ring included

#### ② Hall effect sensor\*\*

<b>Nominal pulse rate</b>	232 Pulse/l
<b>Frequency output</b>	NPN open collector
<b>Power supply</b>	4.5...24 VDC
<b>Electrical connection</b>	0.5 m PVC-cable

#### ③ Adapter sleeve for hall effect sensor\*\*\*

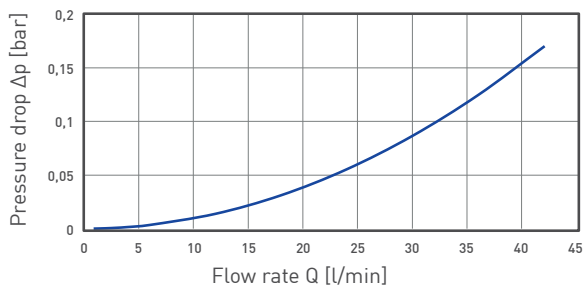
<b>Pressure rating</b>	PN 10
<b>Process connection</b>	G $\frac{3}{8}$ A

#### Approvals

Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

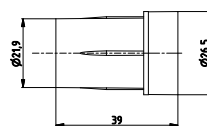
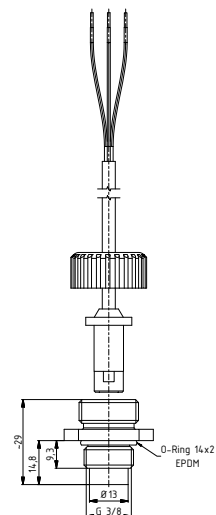


**Typical pressure drop\***



\* determined in SIKA pipe tee

**VTH20**



Materials in contact with fluid	
<b>Push in turbine</b>	
<b>Turbine body</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>Axial bearing</b>	Sapphire
<b>Radial bearing</b>	PA
<b>Adapter sleeve for Hall effect sensor</b>	
<b>Adapter sleeve</b>	PS-ST Xarec® 20 % glass fibre reinforced
<b>O-ring</b>	EPDM

Order code	
Component	Order number
<b>Push in turbine</b>	VT2042020000YY
<b>Hall effect sensor</b>	VT2307
<b>Adapter sleeve for Hall effect sensor</b>	XVT1205

## Push-in flow sensors // VTH25



VTH25

### Your advantages

**Series** VTH25

- Low deviation in mass production, fixed pulse rate, low start-up
- High measuring accuracy, compact dimensions
- Proven in numerous mass production applications

#### ① Push in turbine

<b>Flow range</b>	4...160 l/min*
<b>Accuracy</b>	±5 % of range (up to 5 l/min ±7 % of reading)
<b>Repeatability</b>	±0.5 %
<b>Signal output</b>	From 1 l/min
<b>Medium temperature</b>	Max. 85 °C
<b>Nominal diameter</b>	DN 25

#### Approvals

Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

#### ② Hall effect sensor\*\*

<b>Nominal pulse rate</b>	65 Pulse/l
<b>Frequency output</b>	NPN open collector
<b>Power supply</b>	4.5...24 VDC
<b>Electrical connection</b>	0.5 m PVC-cable

#### ③ Adapter sleeve for hall effect sensor\*\*\*

<b>Pressure rating</b>	PN 10
<b>Process connection</b>	G $\frac{1}{2}$ A

#### Approvals

Plastic parts and O-Ring comply with KTW-guidance or the Elastomer Guideline of the German Federal Environmental Agency

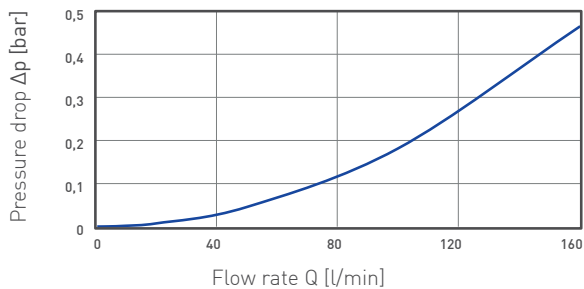
Stated values may vary depending on geometry of fittings.

\* not suitable for continuous operation

\*\* Union nut included

\*\*\* O-ring included

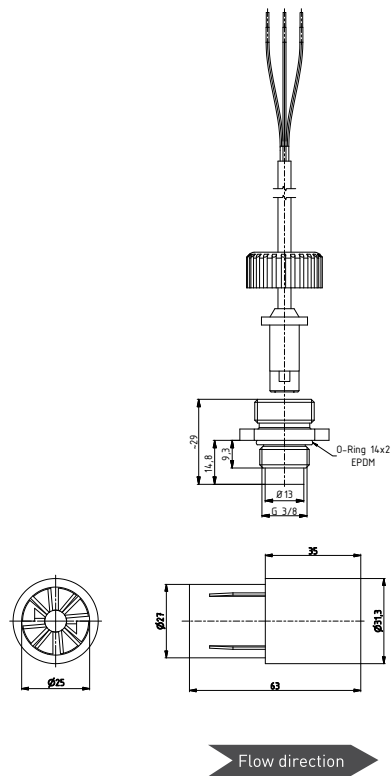
**Typical pressure drop**



\* determined in SIKA pipe tee

**VTH25**

Materials in contact with fluid	
<b>Push in turbine</b>	
<b>Turbine body</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>Axial bearing</b>	Sapphire
<b>Radial bearing</b>	PA
<b>Adapter sleeve for Hall effect sensor</b>	
<b>Adapter sleeve</b>	PS-ST Xarec® 20 % glass fibre reinforced
<b>O-ring</b>	EPDM



Order code	
Component	Order number
Push in turbine	VT2511020000YY
Hall effect sensor	VT2307
Adapter sleeve for Hall effect sensor	XVT1205

## WFI// with Mini-Fit plug // -40...125 °C



WFI

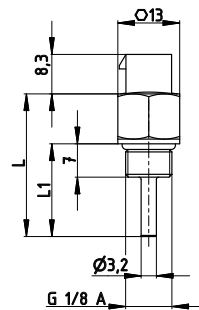
### Your advantages

Series	WFI
	<ul style="list-style-type: none"> <li>• Cost-effective electrical connection by Mini-Fit plug</li> <li>• Effective regulation thanks to short response times</li> <li>• Application-specific installation lengths and screw-in threads possible</li> <li>• High reliability thanks to special internal construction</li> <li>• Measured values reproducible for years thanks to very low long-term drift</li> </ul>

Technical data	
<b>Version</b>	Temperature sensor with Mini-Fit plug
<b>Measuring range</b>	-40...125 °C
<b>Medium / Application</b>	Water and aqueous liquids, non-aggressive gases
<b>Immersion tube length</b>	15 mm, 19.5 mm, 30 mm or 35 mm
<b>Immersion tube diameter</b>	3.2 mm
<b>Process connection</b>	G½
<b>Nominal pressure</b>	PN 25
<b>Medium temperature</b>	-40...125 °C
<b>Ambient temperature</b>	-40...105 °C
<b>Storage temperature</b>	-25...70 °C
<b>Degree of protection EN 60529</b>	IP30

Electrical data	
<b>Measuring element</b>	1 x Pt1000 / 2-wire 1 x NTC 5k 1 x NTC 10k
<b>Measuring insert</b>	Not interchangeable
<b>Accuracy</b>	Class B / $\pm(0.30 \text{ K} + 0.005 \times  t )$ NTC 5k $\pm 0.5 \text{ °C}$ (Beta 1 %) NTC 10k $\pm 1.0 \text{ °C}$ (Beta 2 %)
<b>Electrical connection</b>	Plug Mini-Fit, 2-pin

## WFI



<b>Material</b>	
<b>In contact with media</b>	
<b>Process connection</b>	Stainless steel 1.4571
<b>Immersion tube</b>	Stainless steel 1.4571
<b>Sealing</b>	E7108; WRAS, KTW, W270 Approval

Order code								
<b>Type</b>								
Resistance thermometer	W							
<b>Diameter</b>								
3.2 mm	32							
<b>Material</b>								
Stainless steel 1.4571	3							
<b>Sensor element</b>								
1 x Pt1000 2-wire / class B				P12				
1 x NTC 5k				N01				
1 x NTC 10k				N02				
<b>Nominal length L1</b>								
15 mm					015			
19.5 mm					019			
30 mm					030			
35 mm					035			
<b>Measuring insert</b>								
Not interchangeable						0		
<b>Electrical connection</b>								
Mini-Fit, 2-pin							X0	
<b>Process connection d1*</b>								
G1/8								M
<b>Example order number</b>	<b>W</b>	<b>32</b>	<b>3</b>	<b>P12</b>	<b>019</b>	<b>0</b>	<b>X0</b>	<b>M</b>

\* Andere Spezifikationen auf Anfrage erhältlich



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