

Turbine flow sensors // VTY10

US version available

Note: The US versions are separate products.
The units are not converted, but pre-configured at the factory for the respective variants.



Highlights

- Low wear and extremely long durability due to high quality bearing
- Practically no deviation in mass production due to fixed pulse rate
- Threaded connection or QuickFasten, proven in numerous mass production applications
- High measuring accuracy, mostly independent of fitting position due to integrated flow straightener

Technical data

	VTY10 threaded		VTY QuickFasten
Material pipe section	Brass	Plastic	Plastic
Flow range	1...30 l/min (60...1.800 l/h)		
Flow range	0.26...7.9 US gpm (15.9...476 US gph)		
Accuracy	±1 % of range		
Repeatability	±1 %		
Signal output	From 0.7 l/min (42 l/h)	From 0.6 l/min (36 l/h)	
Signal output	From 0.18 US gpm (11.1 US gph)	From 0.16 US gpm (9.5 US gph)	
Medium temperature	0...90 °C (non-freezing), temporary 95 °C	0...85 °C (non-freezing), temporary 95 °C	0...70 °C (non-freezing), temporary 95 °C
Medium temperature	32...194 °F (non-freezing) temporary 203 °F	32...185 °F (non-freezing), temporary 203 °F	32...158 °F (non-freezing), temporary 203 °F
Ambient temperature	0...70 °C		
Ambient temperature	32...158 °F		
Pressure rating	PN 16	PN 10	
Pressure rating	Max. 232 psi	Max. 145 psi	
Nominal diameter	DN 10		
Nominal pipe size	½"		
Process connection	G½ male thread	G¾ male thread	QuickFasten
Process connection	½" NPT male	G¾ male	QuickFasten
Sensor	Hall effect sensor		
Output signal	Square wave frequency signal, NPN open collector		

Technical data

Technical data		
	VTY10 threaded	VTY QuickFasten
Pulse duty ratio	50:50	
Pulse rate / K-factor	495 pulses/l	530 pulses/l
Pulse rate / K-factor	1,874 pulses/gallon	2,006 pulses/gallon
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 (115 mm)
Electrical connection	3.2" (3.5" QuickFasten) single wire with Molex Mini-Fit® Jr. plug connector (part number 39-01-4036)	
	Optional: PVC-cable (39.37")	Optional: Single wires (5.7")
Power supply	4.5...24 VDC	

Approvals

Drinking water approvals

KTW-BWGL*: Product hygiene suitability for drinking water according to the 1+ system with external monitoring, [Certificate no. Z-346843-21-Hy112 Rev.01](#)

WRAS* (approved product), [Certificate no. 2111343](#)

ACS (Attestation de conformité sanitaire), [Certificate no. 22 ACC LY 578](#)

Kiwa Regulation 4* (KUKreg4) Certification, [Certificate no. 2112709 \(1\)](#)

* not available for process connection NPT



NSF/ANSI 372
NSF/ANSI 61



NSF/ANSI 372, [Certificate no. 8492](#)

NSF/ANSI 61, [Certificate no. N-8491](#)

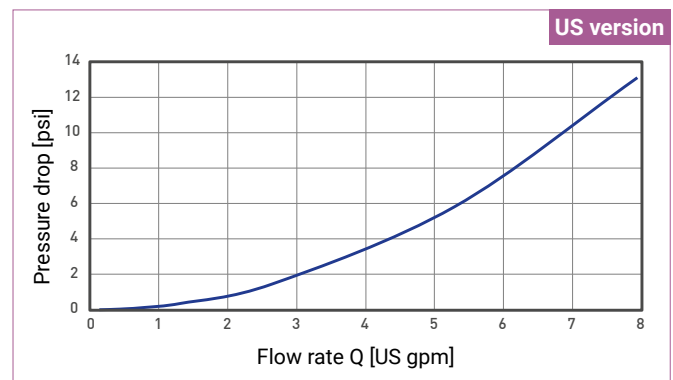
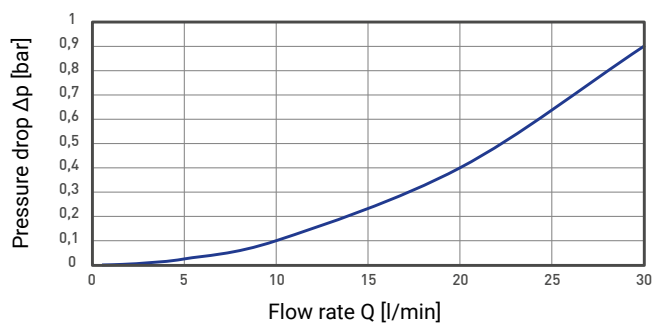
Available for:

VY1030MKHNX1N3, VY1030MKHN10N3

VY1030K5HNX1A4, VY1030K5HN10A4

Typical pressure drop

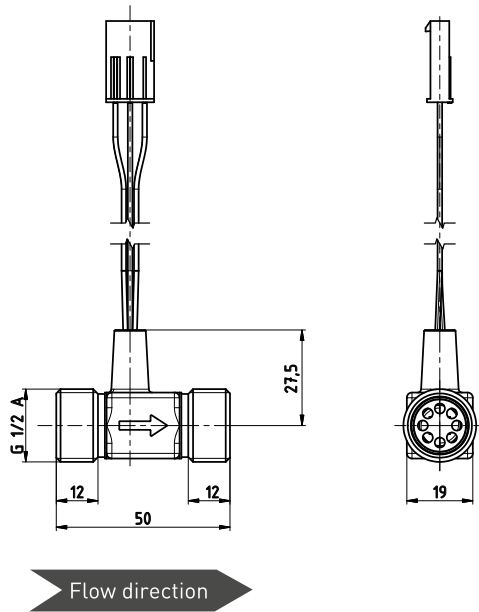
Typical pressure drop



Technical drawings

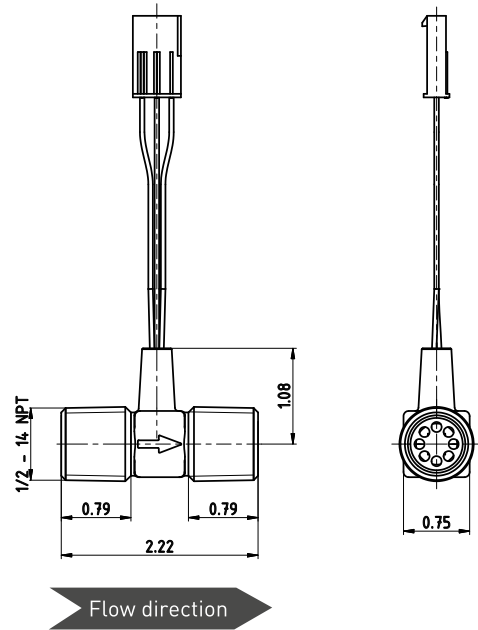
Threaded version, brass

All Dimensions in mm



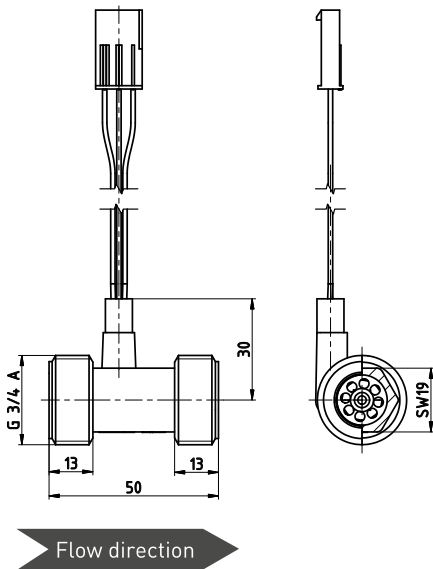
NPT version, brass

All Dimensions in inch



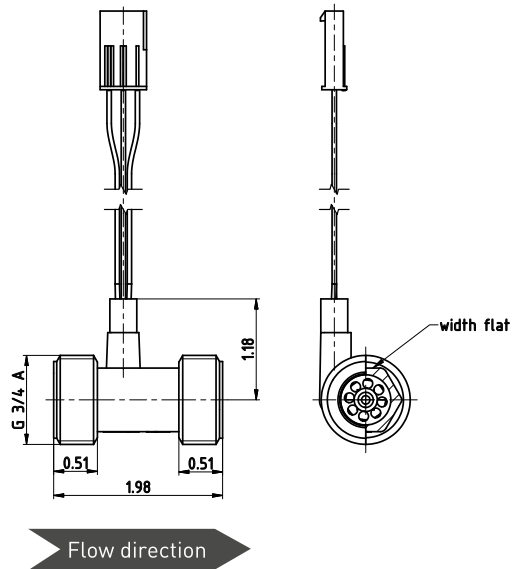
Threaded version, plastic

All Dimensions in mm



Threaded version, plastic

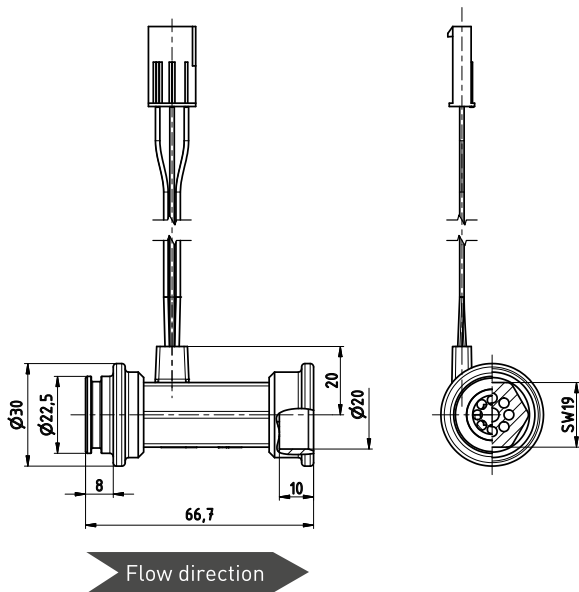
All Dimensions in inch



Technical drawings

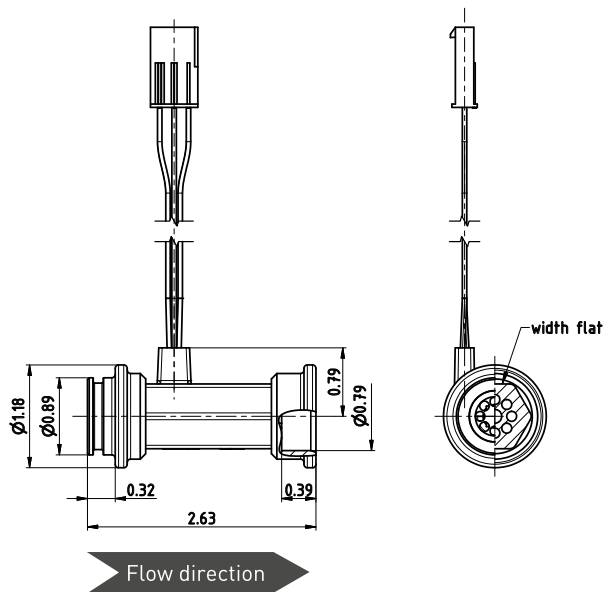
QuickFasten, plastic

All Dimensions in mm

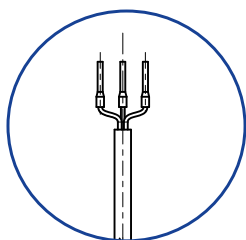


QuickFasten, plastic

All Dimensions in inch



Alternative electrical connection

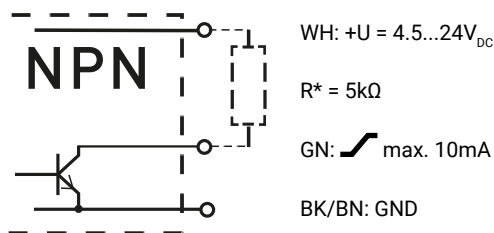


Materials

Materials in contact with fluid			
VTY10	G thread, brass	Plastic	NPT thread, brass
Pipe section	Brass CW617N	PPE+PS Noryl™ 30 % glass fibre reinforced	Brass CW724R
Rotor	PPE+PS Noryl™ 30 % glass fibre reinforced		
Magnet	Hard ferrite		
Shaft	Stainless steel / Hard metal		
Axial bearing	Sapphire		
Radial bearing	PEEK		

Wiring // Pin assignment

Wiring

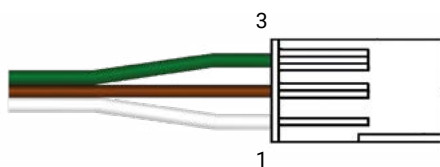
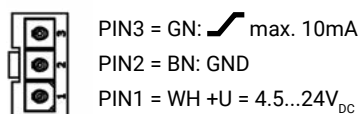


Colour code

WH = white
 GN = green
 BK = black (single wire)
 BN = brown (PVC cable / Molex)
 R = resistance

* Recommended pull-up resistance R ~ 5kΩ

Pin assignment Molex Mini-Fit® plug



Article numbers

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

Note minimum order quantities.

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

Note minimum order quantities.

Article numbers // US versions

Order code		
Type		
VTY10 NPT, brass		VY1030MKHN
Electrical connection		
3.2" single wire with Molex Mini-Fit® Jr. plug connector		X1N3
39.37" PVC-cable		10N3
Example order number		VY1030MKHN X1N3

Note minimum order quantities.

Order code		
Type		
VTY10, plastic		VY1030K5HN
Electrical connection		
39.37" PVC-cable, threaded		10A4
3.2" single wire with Molex Mini-Fit® Jr. plug connector, threaded		X1A4
5.7" single wires, QuickFasten		P0Q1
3.5" single wires mit with Molex Mini-Fit® Jr. plug connector, QuickFasten		X2Q1
Example order number		VY1030K5HN 10A4

Note minimum order quantities.