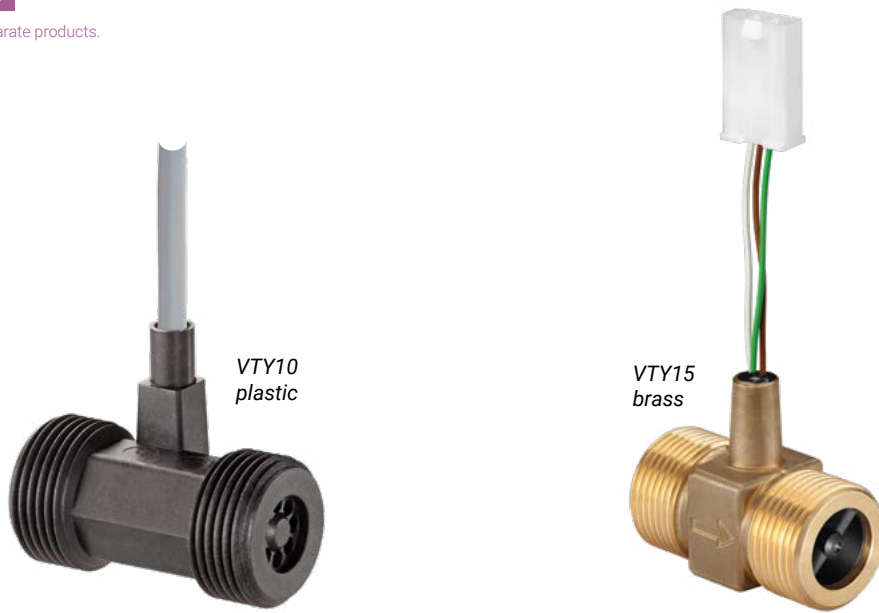


Turbine flow sensors // VTY10, VTY15, VTY20, VTY25

US versions available

Note: The US versions are separate products.







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			VTY15	VTY20		VTY25
Material pipe section	Plastic QF	Plastic	Brass	Brass	Brass	St. Steel	Brass
Flow range l/min (l/h)	1...30 (60...1,800)			1...45 (60...2,700)	1...60 (60...3,600)		1...90 (60...5,400)
Flow range US gpm (US gph)	0.26...7.9 (15.9...476)				0.26...16 (15.9...951)		0.26...24 (15.9...1,427)
Accuracy	±1 % of range			±(1 % of range + 0.5 % of reading)	±(1 % of range + 1 % of reading)		
Repeatability	±1 %						
Signal output l/min (l/h)	From 0.6 (36)			From 0.8 (48)			
Signal output US gpm (US gph)	From 0.16 (9.5)				From 0.21 (12.7)		
Medium temperature (non-freezing)	0...70 °C, temporary 95 °C	0...85 °C, temporary 95 °C	0...90 °C				
Medium temperature (non-freezing)	32...158 °F, temporary 203 °F	32...185 °F, temporary 203 °F	32...194 °F				
Ambient temperature	0...70 °C						
Ambient temperature	32...158 °F						
Pressure rating	PN 10		PN 16				
Pressure rating	Max. 145 psi		Max. 232 psi				
Degree of protection EN 60529	IP65 and IP67 (Does not apply to plug connectors or open wire ends)						
Nominal diameter	DN 10			DN 15	DN 20	DN 25	
Nominal pipe size	½"				¾"	1"	

Technical data

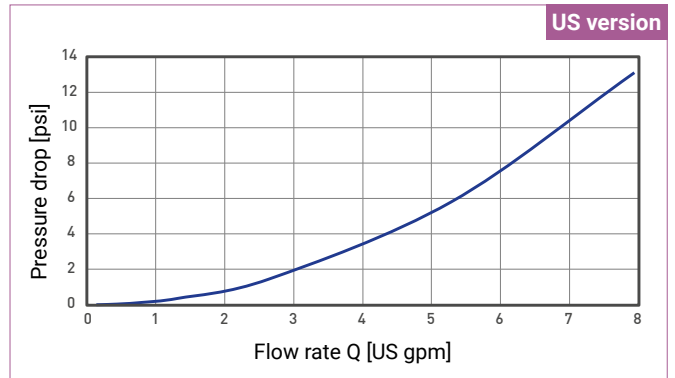
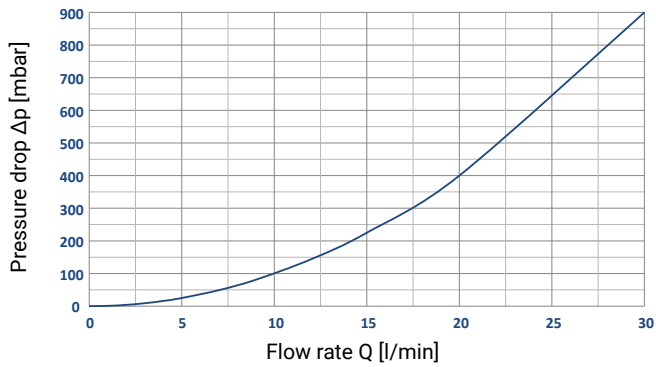
Technical data							
	VTY10			VTY15	VTY20		VTY25
Material pipe section	Plastic QF	Plastic	Brass	Brass	Brass	St. Steel	Brass
Process connection	QuickFasten	G $\frac{3}{4}$ male	G $\frac{1}{2}$ male	G $\frac{3}{4}$ male	G 1 male		G 1 $\frac{1}{4}$ male
Process connection	QuickFasten	G $\frac{3}{4}$ male	$\frac{1}{2}$ " NPT male		1" NPT male		1 $\frac{1}{4}$ " NPT male
Sensor	Hall effect sensor						
Output signal	Square wave frequency signal, NPN open collector						
Pulse duty ratio	50:50						
Pulse rate / K-factor [pulses/l]	530		495	234	119	122	72
Pulse rate / K-factor [pulses/gallon]	2,006		1,874		450	462	273
Electrical connection	80 mm (VTY10 QuickFasten 90 mm) single wire with Molex Mini-Fit® Jr. plug connector (part number 39-01-4036)						
	Optional: Single wires (115 mm)	Optional: PVC cable (1 m), optional single wires	Optional: 0.5 m, 1 m or 2 m PVC cable				
Electrical connection	3.2" (3.5" VTY10 QuickFasten) single wire with Molex Mini-Fit® Jr. plug connector (part number 39-01-4036)						
	Optional: Single wires (5.7")	Optional: PVC cable (39.4")	Optional: 19.7", 39.4" or 78.7" PVC cable		Optional: 19.7", 39.4" or 78.7" PVC cable		
Power supply	4.5...24 VDC						
Current consumption	Typ. 1.6 mA						
Drinking water approvals							
	WRAS* (approved product), Certificate no. 2111343			WRAS (approved product), Certificate no. 2012341	WRAS (approved product), Certificate no. 2310332	WRAS (approved product), Certificate no. 2309314	
	KTW-BWGL* : Product hygiene suitability for drinking water according to the 1+ system with external monitoring, Certificate no. Z-346843-21-Hy112 Rev.01						
	Kiwa Regulation 4* (KUKreg4) Certification, Certificate no. 2112709 (1)			Kiwa Regulation 4 (KUKreg4) Certification, Certificate no. 2012725	Kiwa Regulation 4 (KUKreg4) Certification, Certificate no. 2310747 (1)	Kiwa Regulation 4 (KUKreg4) Certification, Certificate no. 2308709 (1)	
	NSF/ANSI 372 , Certificate no. 8492 NSF/ANSI 61 , Certificate no. N-8491 Available for: VY1030MKHNX1N3, VY1030MKHN10N3 VY1030K5HNX1A4, VY1030K5HN10A4				NSF/ANSI 372 , approval pending NSF/ANSI 61 , approval pending Pending for: VY2061MKHN..A5 VY2061MKHN..N5 Version with G-thread on request		
ACS (Attestation de conformité sanitaire)	Certificate no. 22 ACC LY 578**						

* not available for process connection NPT

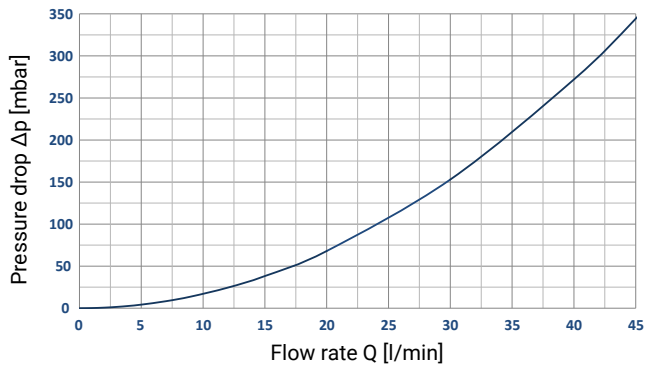
** not available for stainless steel version

Typical pressure drop

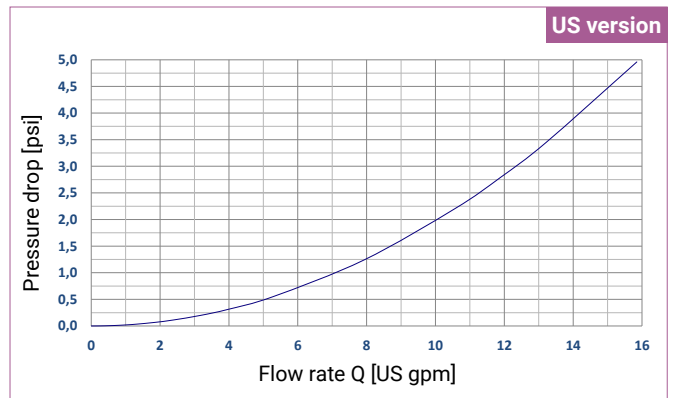
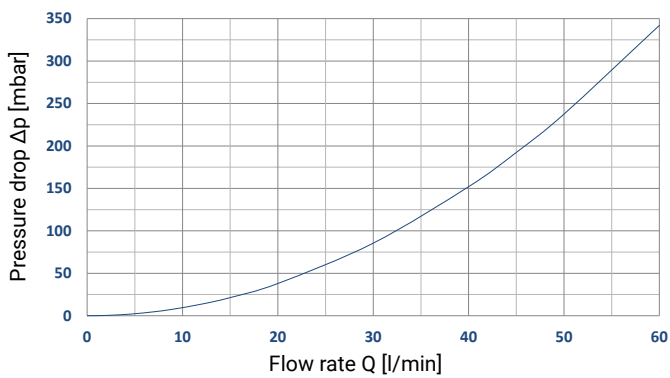
VTY10



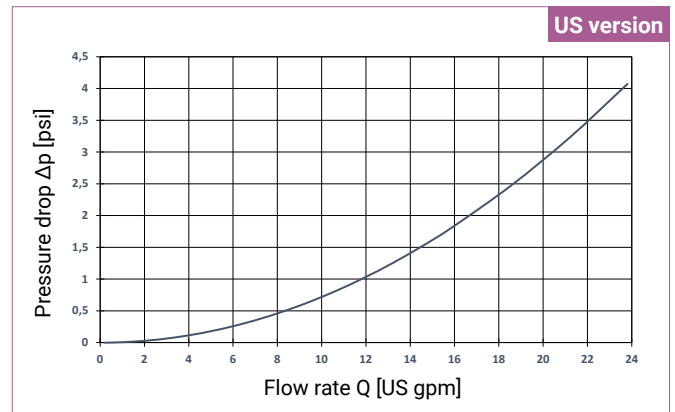
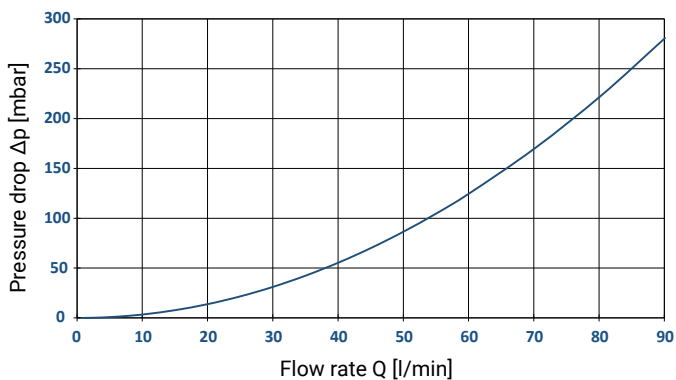
VTY15



VTY20



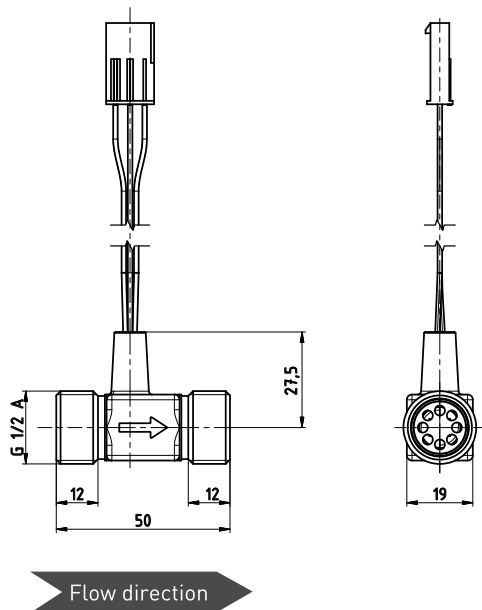
VTY25



Technical drawings // Dimensions

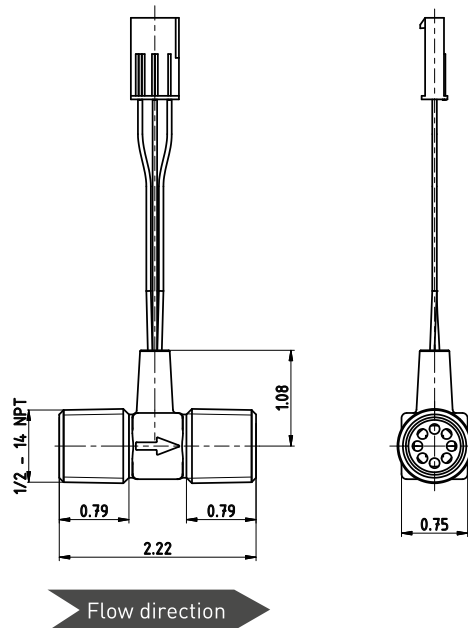
VTY10 threaded version, brass

All Dimensions in mm



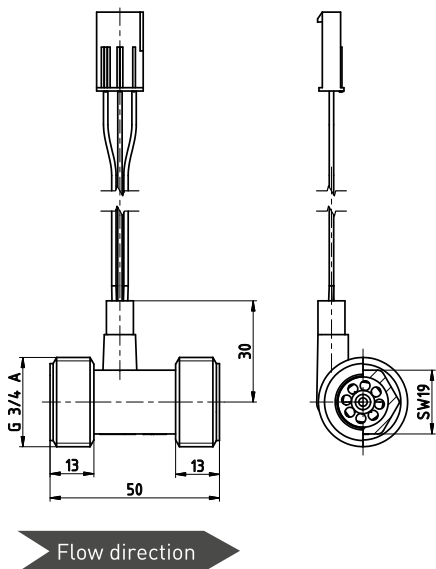
VTY10 NPT version, brass

All Dimensions in inch



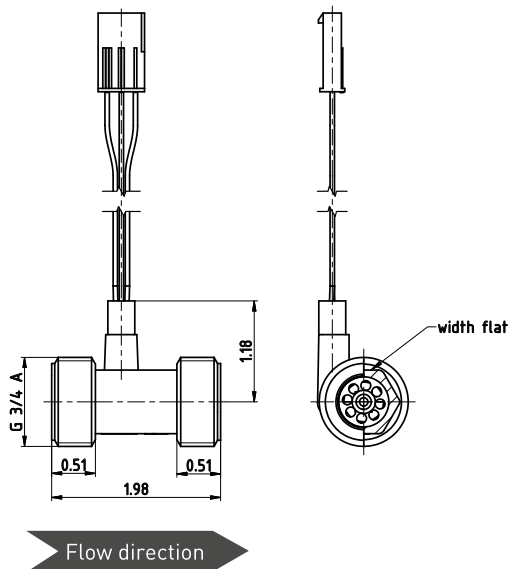
VTY10 Threaded version, plastic

All Dimensions in mm



VTY10 Threaded version, plastic

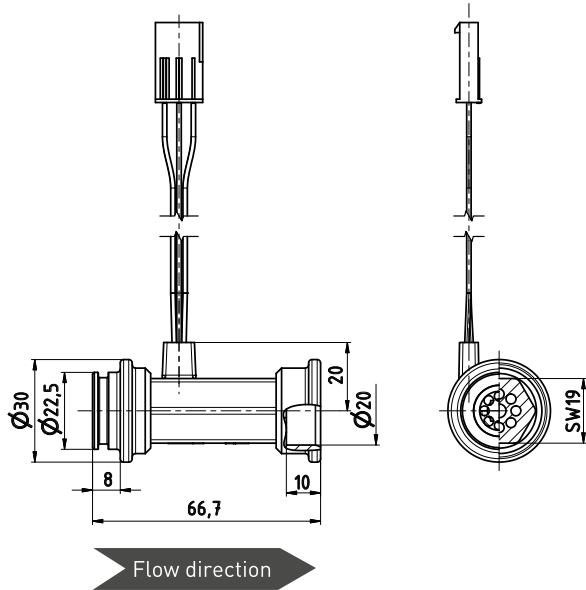
All Dimensions in inch



Technical drawings // Dimensions

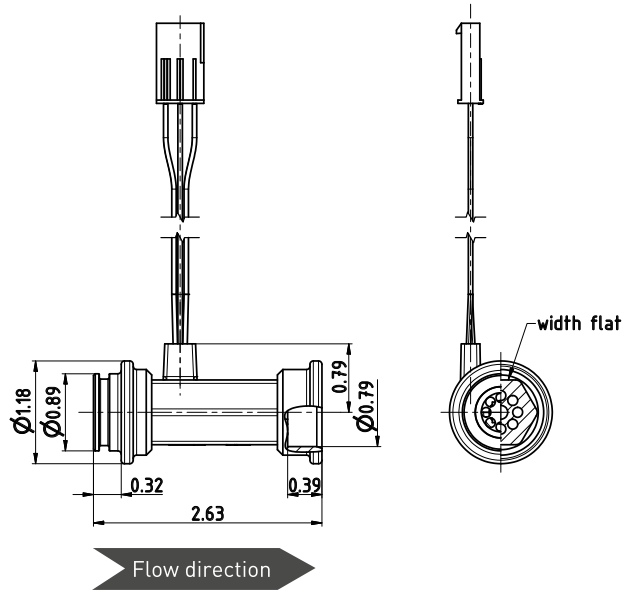
VTY10 QuickFasten, plastic

All Dimensions in mm



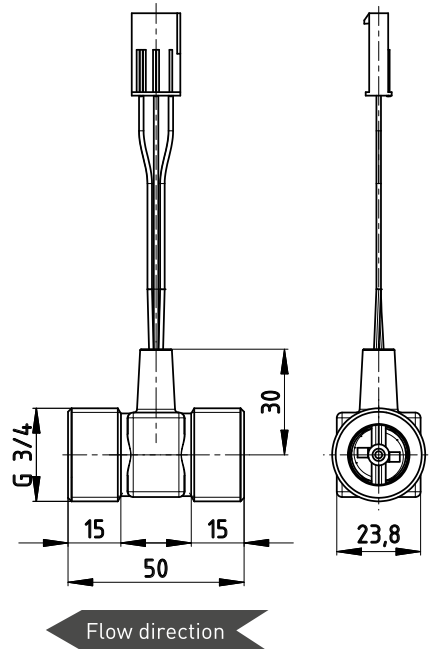
VTY10 QuickFasten, plastic

All Dimensions in inch



VTY15

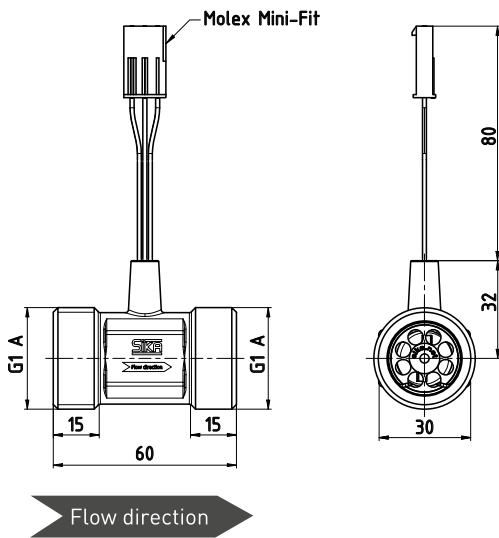
All Dimensions in mm



Technical drawings // Dimensions

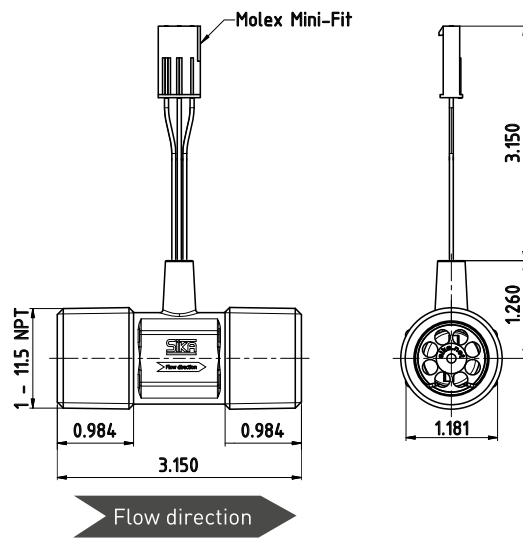
VTY20 threaded version

All Dimensions in mm



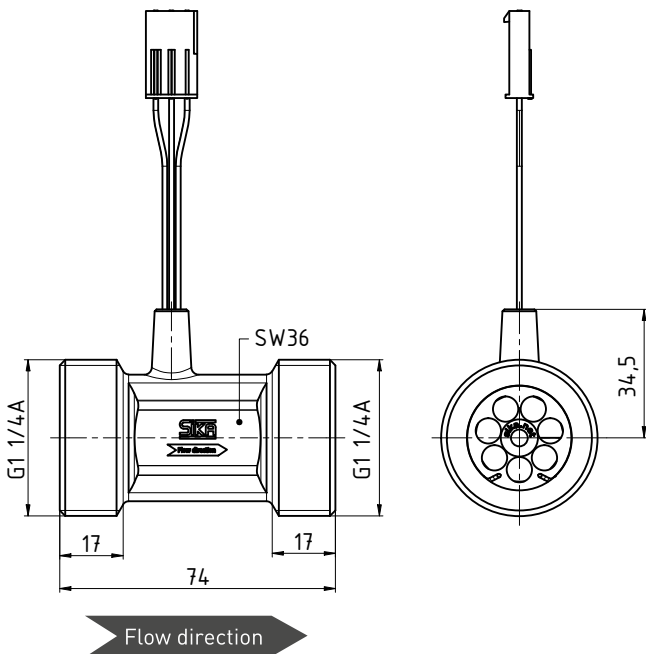
VTY20 NPT version

All Dimensions in inch



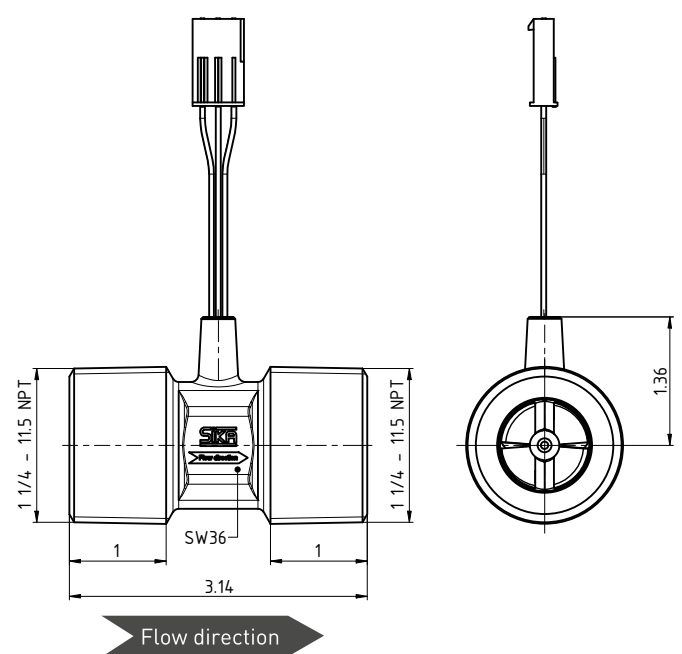
VTY25 threaded version

All Dimensions in mm

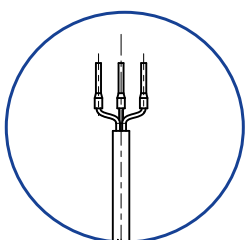


VTY25 NPT version

All Dimensions in inch

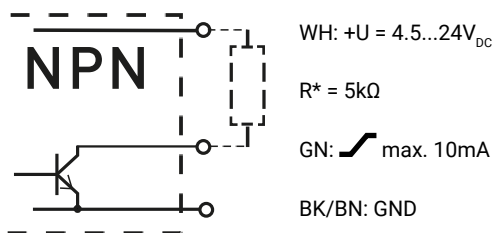


Alternative for electrical connection



Wiring // Pin assignment

Wiring

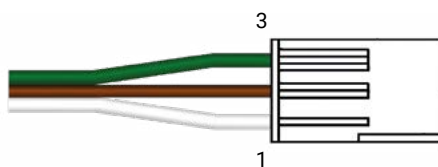
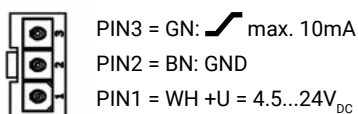


Colour code

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



Materials

Materials in contact with media // VTY10

	VTY10 G thread brass	VTY10 Plastic	VTY10 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		

Materials in contact with media // VTY15 // VTY20 // VTY25

	VTY15	VTY20 Stainless steel	VTY20 G thread brass	VTY20 NPT thread brass	VTY25	VTY25 NPT thread brass
Pipe section	Brass CW617N-DW	Stainless steel 1.4308	Brass CW617N-DW or Brass CW724R	Brass CW724R	Brass CW617N-DW	Brass CW724R
Turbine cage	PPE+PS Noryl™ 30 % glass fiber reinforced					
Rotor	PPE+PS Noryl™ 30 % glass fibre reinforced					
Magnet	Hard ferrite					
Shaft	Stainless steel / hard metal					
Axial bearing	Sapphire					
Radial bearing	PEEK					
Locking ring	Stainless steel					

Article numbers

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.

Order code		
Type		
VTY10, brass CW617N-DW	VY1030MAHN	A3
VTY15, brass CW617N-DW	VY1545MAHN	A4
VTY20, brass CW617N-DW	VY2061MAHN	A5
VTY20, brass CW724R	VY2061MKHN	A5
VTY20, stainless steel	VY2061VAHN	A5
VTY25, brass CW617N-DW	VY2590MAHN	A6
Electrical connection		
80 mm single wire with Molex Mini-Fit® Jr. plug connector		X1
0.5 m PVC cable		05
1 m PVC-cable		10
2 m PVC cable		20
Example order number	VY1030MAHN	X1 A3

Note minimum order quantities.

Order code		
Type		
VTY10, plastic	VY1030K5HN	
Electrical connection		
39.4" 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.

Order code		
Type		
VTY10 NPT, brass CW724R	VY1030MKHN	N3
VTY20 NPT, brass CW724R	VY2061MKHN	N5
VTY20 NPT, stainless steel	VY2061VAHN	N5
VTY25 NPT, brass CW724R	VY2590MKHN	N6
Electrical connection		
3.2" single wire with Molex Mini-Fit® Jr. plug connector		X1
19.7" PVC cable		05
39.4" PVC cable		10
78.7" PVC cable		20
Example order number	VY1030MKHN	X1 N3

Note minimum order quantities.