

VTR



VTR1050



VTR1100

Your advantages

Series	VTR
	<ul style="list-style-type: none"> • Robust stainless steel body, even for difficult applications • Wide measuring ranges (1.8...45090 l/min) • High measuring accuracy, regardless of the mounting position • High quality tungsten carbide bearings with low wear and long durability • For variable use thanks to different pick-up sensors as well as a variety of connections and sizes • Works calibration certificate 5 point calibration

Technical data

Accuracy	±0.5 % of reading*
Repeatability	±0.05 % of reading
Response time	< 50 ms up to DN 40 > 50 ms up to DN 300
Process connections	Thread (up to DN 50): BSP ISO 228 Flange: DIN
Pressure drop	280 mbar at 100 % measurement range (density 1, viscosity 1 mm ² /s)
Minimum pressure	2 x pressure drop of sensor
Pressure rating	Threaded connection: 250 bar Flanged connection: corresponding to flange specification
Medium temperature	See technical data of the pick-up (page 4); max. 250 °C

All specified values apply to viscosities up to 5 cSt. Higher viscosities on request.

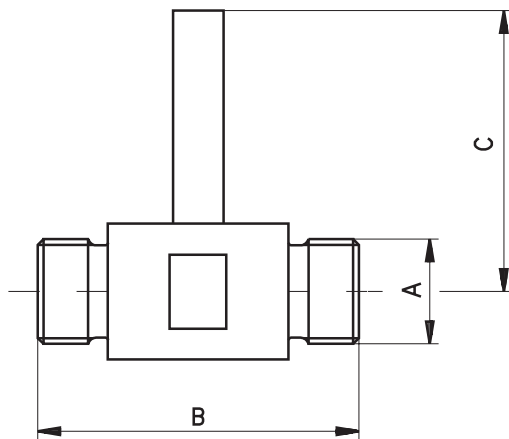
Options

For type	On request
VTR	Process connections → ANSI → NPT-Gewinde

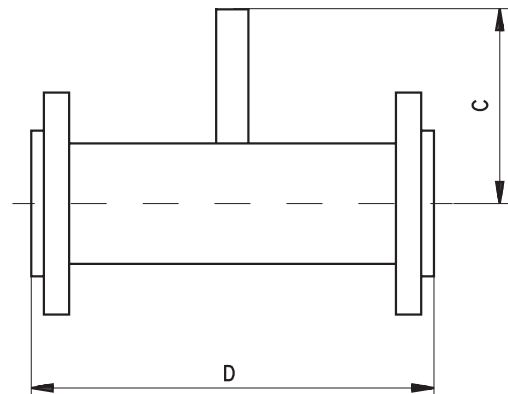
* Test conditions: Ex works, water 23 °C

Type	Nominal diameter	Flow range		Dimensions			
	DN	[m ³ /h]	[l/min]	A	B [mm]	C _{max} [mm]	D [mm]
VTR1010	10	0.11...1.1	1.8...18.3	G ¹ / ₂	64	150	127
VTR1015-S	15	0.22...2.2	3.7...36.7	G ³ / ₄	64	150	127
VTR1015	15	0.4...4	6.7...66.7	G ³ / ₄	64	150	127
VTR1020	20	0.8...8	13.3...133	G ³ / ₄	83	150	140
VTR1025	25	1.6...16	26.7...267	G 1	88	200	152
VTR1040	40	3.4...34	56.7...567	G 1 ¹ / ₂	114	200	178
VTR1050	50	6.8...68	113...1133	G 2	132	200	197
VTR1075	75	13.5...135	225...2250			200	254
VTR1100	100	27...270	450...4500			300	356
VTR1150	150	55...550	917...9167			300	360
VTR1200	200	110...1100	1833...18333			350	457
VTR1250	250	190...1900	3173...31730			350	457
VTR1300	300	270...2700	4509...45090			400	457

Thread connection DN 10...DN 50



Flange connection DN 10...DN 300



Materials	
Pipe tee	Stainless steel ANSI 316
Flange	Stainless steel ANSI 316
Rotor	VTR1010 - VTR1020: Stainless steel (18 % Cr, 2 % Mo) VTR1025 - VTR1300: Stainless steel (20 % Cr, 2 % Mo)
Bearing support	Stainless steel ANSI 316
Rotor bearing	Tungsten carbide Sleeve bearing

Order code			
Type			
VTR thread connection male	VS		
Nominal size / flow range	Process connection		
DN 10 / 0.11...1.1 m ³ /h	male thread G ¹ / ₂	1071VA	A3
DN 15 / 0.22...2.2 m ³ /h	male thread G ³ / ₄	1572VA	A4
DN 15 / 0.4...4 m ³ /h	male thread G ³ / ₄	1573VA	A4
DN 20 / 0.8...8 m ³ /h	male thread G ³ / ₄	2074VA	A4
DN 25 / 1.6...16 m ³ /h	male thread G 1	2575VA	A5
DN 40 / 3.4...34 m ³ /h	male thread G 1 ¹ / ₂	4076VA	A7
DN 50 / 6.8...68 m ³ /h	male thread G 2	5077VA	A8
Sensor			
Inductive pick-up VISPP		ISPO	
Inductive pick-up for high temperatures VISPP-HT		ISHO	
Magnetically biased Hall effect sensor VSAPPS incl. adapter VT1140		SAPO	
Magnetically biased Hall effect sensor VSAPPSHT for high temperatures incl. adapter VT1140		SAHO	
Optional pick-up according to table on the following page (separate order)		0000	
Example order number	VS	1071VA	ISPO A3

Order code			
Type			
VTR flange connection	VS		
Nominal size / flow range			
DN 10 / 0.11...1.1 m ³ /h		1071VA	
DN 15 / 0.22...2.2 m ³ /h		1572VA	
DN 15 / 0.4...4 m ³ /h		1573VA	
DN 20 / 0.8...8 m ³ /h		2074VA	
DN 25 / 1.6...16 m ³ /h		2575VA	
DN 40 / 3.4...34 m ³ /h		4076VA	
DN 50 / 6.8...68 m ³ /h		5077VA	
DN 80 / 13.5...135 m ³ /h		7578VA	
DN 100 / 27...270 m ³ /h		1H79VA	
DN 150 / 55...550 m ³ /h		HF81VA	
DN 200 / 110...1100 m ³ /h		2H82VA	
DN 250 / 190...1900 m ³ /h		ZF83VA	
DN 300 / 270...2700 m ³ /h		3H84VA	
Sensor			
Inductive pick-up VISPP		ISPO	
Inductive pick-up for high temperatures VISPP-HT		ISHO	
Magnetically biased Hall effect sensor VSAPPS incl. adapter VT1140		SAPO	
Magnetically biased Hall effect sensor VSAPPSHT for high temperatures incl. adapter VT1140		SAHO	
Optional pick-up according to table on the following page (separate order)		0000	
Process connection			
DIN flange stainless steel			G
ANSI flange stainless steel			
PN 6 / #150			1
PN 16 / #300			2
PN 25 / #400			3
PN 40 / #600			4
Example order number	VS	1071VA	ISPO G 1

Accessories // VTR



Pick-ups

Your advantages

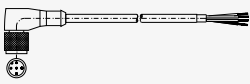

Series	VISPP	VISPP-HT	VSAPPS	VSAPPSHT
	<ul style="list-style-type: none"> • Cost optimized version 	<ul style="list-style-type: none"> • For high medium temperatures 	<ul style="list-style-type: none"> • Square wave signal 	<ul style="list-style-type: none"> • Square wave signal • For high medium temperatures

Technical data

Type	VISPP	VISPP-HT	VSAPPS*	VSAPPSHT*
Output signal	Sinus wave		Square wave NPN or PNP to choose	
Measuring principle	Inductive		Magnetically biased Hall effect sensor	
Temperature range	-20...120 °C	-20...230 °C	-20...85 °C	-20...100 °C
Power supply			10...30 VDC	
Degree of protection EN 60529	IP54		IP67	
Electrical connection	Amphenol plug connection Pick-up: MS3101E10SL-4P Plug: MS3106F10SL-4S		4-pin plug connection M12 x 1	
Cable socket	Inclusive		Accessory	
Material housing	Stainless steel ANSI 314	Stainless steel ANSI 316	Brass nickel-plated	

* Separate adapter VT1140 necessary

Order code

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