

V-100 product information







Variable area flowmeters for gases and liquids



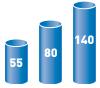
Wide-ranging and modular:



Variable area flowmeters V-100

Highly modular and adaptable for almost any requirement: Variable area flow meter with a wide range of options.

Measuring tubes in 3 sizes



The flow meters are available with three different glass tube lengths

Measuring tube scales







In addition to mm scales with flow rate table, glass tubes with direct reading or custom scales are available

Precise control valves

The devices are equipped with precise, hysteresis-free 15-way control valves.

The valves are tightly closing

Different device setups



In addition to standard rear ports, devices with lateral and vertical ports are available

Aluminium or stainless steel





The bodies are available in aluminium or stainless steel. Sealing materials FKM or EPDM

Various instruments options

We offer a range of options for the flow meters:

- Laboratory base
- Limit contact (inductive)
- Adaptation to customized gas line routing



Technical specifications variable area flowmeters V-100



Footures	Construction	Chart maunting langth	O inatrument aizas								
⁼ eatures	Construction	Short mounting length, Rear, lateral or axial	o instrument sizes								
	Scale	Millimetric scale, direct	Millimetric scale, direct reading scale and customer-specific scale.								
			The scales are highly wear-resistant								
	Float type	Spherical Precisely adjustable, 15-turn micro valve, practically hysteresis-free									
	Valve		i-turn micro valve, practi alue) is optimized for the								
	Body material	Aluminium or stainless steel									
	Seals material	FKM, EPDM or FFKM	FKM, EPDM or FFKM								
	Customization	We provide customer-specific versions									
nstrument versions	Setup	Type S* (Standard setup) Setup L, R, A, T and O (see below)									
	Material		Anodized aluminium/Nickelized brass (valve)/FKM Stainless steel/FKM Stainless steel/EPDM								
	Connection	G 1/4" female* G 1/8" female G 1/4" female for compression fittings NPT 1/4" female									
	Valve at inlet* or outlet	With standard knob* Without valve									
	Torre	V 400 55	V 400.00	V 400 440							
Technical data	Type	V-100 55	V-100 80	V-100 140							
	Turndown ratio	10:1	10:1	10:1							
	Accuracy in % of full scale	±5%	±4%	±2%							
	Measuring tube length	55 mm	80 mm	140 mm							
	Scale length	40 mm	65 mm	120 mm							
	Float	spherical	spherical	spherical							
	Max. pressure	20 bar	20 bar	16 bar							
	Max. temperature	100 °C	100 °C	100 °C							
	Max. pressure drop	20 mbar	20 mbar	30 mbar							
Options	Calibration report (factory cer	tificate)									
	Additional flow rate table for n	Additional flow rate table for mm-scale									
	Laboratory base										
	Back cover (milky plexiglass)										
	Limit switch: min. limit switch,	Limit switch: min. limit switch, max. limit swich									
	Relays 24 Vdc for limit switch,	Relays 24 Vdc for limit switch, relays 230 Vac for limit switch									
	Hose connectors PVC										
	Customized measuring tube s	Customized measuring tube scale									
Setup	Setup S (standard)	Setup L	Setup R								
	Setup A (stainless-steel only)	Setup T (stainless-stee	stainless-steel only)								
		•									

^{*}Standard - Subject to technical alterations

Measuring ranges variable area flowmeters V-100



The measuring tubes are available with three different scales:

Measuring range for direct reading scales – Standard scales										
Medium	Air									
Reference conditions	<u>ln</u> ,	<u>/h</u> / 1.21 bara / 20	°C	<u>mln/min</u> / 1.013 bara / 20 °C						
	V-100 55	V-100 80	V-100 140	V-100 55	V-100 80	V-100 140				
	0.12 – 1.2	0.12 – 1.2	-	-	10 – 120	10 – 100				
	0.2 – 2	0.2 – 2	0.2 – 2	-	20 – 240	40 – 220				
	0.3 – 3	0.3 – 3	0.3 – 3	-	60 - 640	50 – 540				
	0.5 – 5	0.5 – 5	0.5 – 5							
	0.8 – 8	0.8 – 8	0.8 – 8	<u>ln/m</u>	<u>nin</u> / 1.013 bara / 2	20 °C				
	1.6 – 16	1.6 – 16	1.6 – 16	V-100 55	V-100 80	V-100 140				
	4 – 40	4 – 40	4 – 40	-	0.1 – 1	0.1 – 1				
	6 – 60	6 – 60	6 – 60	-	0.3 – 2.2	0.2 – 2.2				
	10 – 100	10 – 100	10 – 100	-	0.5 – 5	0.5 – 6.0				
	25 – 250	25 – 250	25 – 250	-	0.2 – 10	1.5 – 10.5				
	50 – 500	50 – 500	50 – 500	-	2 – 20	2 – 26				
	80 – 800	80 – 800	80 – 800	-	4 – 32	6 – 51				
	120 – 1200	120 – 1200	120 – 1200							
	140 – 1400	-	140 – 1400							
	-	_	200 – 2000							
Medium			Wa	iter						
Reference conditions			<u>l/h</u> /:	20 °C						
	V-10	0 55	V-10	0 80	V-100 140					
	0.25	- 2.5	-	-	0.25 – 2.5					
	0.5	- 5	-	-	0.5	-5				
	1.2	- 12	-		1.2	– 12				
	2.5	- 25	-	-	2.5	– 25				
	4 –	40	-	_	4 –	40				
	6 –	-60	-	-	6 – 60					
	7 –	70	_	_	7 – 70					

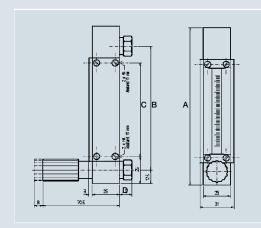
2. Measuring range for mm scales (with flow table) – For varying operating conditions (temperature, pressure, medium)									
Medium	А	ir	Water						
Reference conditions	<u>In/h</u> / 1.21 bara / 20 °C		<u>l/h</u> / 20 °C						
Measuring range	smallest	highest	smallest	highest					
V-100 80	0.04 – 1.75	100 – 5000	0.0005 - 0.015	10 – 100					
V-100 140	0.15 – 2.25	500 – 5000	0.001 - 0.018	12 – 150					

3. Customer-specific scales

For customer-specific scales please provide the following specifications:

- Medium, mixture if applicable and max. flow
- Pressure in bar, absolute (only required for gases)
- Medium temperature, if applicable medium viscosity and density

Dimensions variable area flowmeters V-100



Tuno		Dimensions in mm					
Туре	Α	В	С				
V-100 55	102.5	89.5	61.5				
V-100 80	145.5	114.5	86.5				
V-100 140 205.5		174.5	146.5				
Fittings		D	Thread depth				
G1/4" female		12	7				
G1/8" female		12	8				
G1/4" female for compression fittings		17	12				
NPT 1/4"		16	9				
Blind nipple (setup L & R only)		5.5	-				
Find detailed dimensions in the V-Flow Line manual							

Type code variable area flowmeters V-100



Instrument type	V-100	F	L	. \	/								
Instrument size	55					Α							
	80					В							
	140					С							
Materials (body, seals)	Aluminium/brass, FKM						S						
	Stainless steel, FKM						Е						
	Stainless steel, EPDM						Т						
	Stainless steel, FFKM						W						
	Customer-specific / OEM						K						
Setup	Setup S**							S					
	Setup L							L					
	Setup R							R					
	Setup A (stainless steel only)							Α					
	Setup T (stainless steel only)							Т					
	Setup O (stainless steel only)							0					
	Customer-specific / OEM							K					
Valve (position)	Valve at the inlet**								S				
	Valve at the outlet								Α				
	Without valve								0				
	Customer-specific / OEM								K				
Process connection (in- and oulet)	G 1/4" female**										s		
	G 1/8" female										В		
	G 1/4" female (for compression fittings)										С		
	NPT 1/4" female										D		
	Customer-specific / OEM										K		
Measuring tube scale	Millimetric scale											М	
	Direct reading scale											D	
	Customer-specific / OEM											K	
Options	Additional flow rate table for mm-scale												Т
	Calibration report												Р
	Laboratory base												F
	Back cover, plexiglass, milky												R
	Min. limit switch												G
	Max. limit switch												1
	Relays 24 Vdc for limit switch												J
	Relays 230 Vac for limit switch												Н
	Hose connectors PVC, G 1/4" / 4mm												N
	Hose connectors PVC, G 1/4" / 6mm												0
	Hose connectors PVC, G 1/4" / 8mm												Q
	Customized measuring tube scale												М
	Customer-specific / OEM												K
Type code		F	L		/ -					-			-

^{**} Standard

Please contact our sales for all questions concerning configuration settings and customized versions: +41 61 756 63 00 or sales@voegtlin.com



Do you have any questions about our products? Give us a call:

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Or send us an e-mail:

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You will find your local Vögtlin sales partner on the internet:

www.voegtlin.com



