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.



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

Features	Construction Short mounting length, 3 instrument sizes									
	Connections	Rear, lateral or axial								
	Scale	Millimetric scale, direct The scales are highly w		omer-specific scale.						
	Float type	Spherical								
	Valve	Precisely adjustable, 15								
	De de se de del	The control range (Kv-v								
	Body material	Aluminium or stainless	Sleel							
	Seals material	FKM, EPDM or FFKM								
	Customization	We provide customer-specific versions								
Instrument versions	Setup	Type S* (Standard setup Setup L, B, A, T and O								
	Material	Setup L, R, A, T and O (see below) Anodized aluminium/Nickelized brass (valve)/FKM								
	Material	Stainless steel/FKM Stainless steel/EPDM Stainless steel/FKM								
	Connection	G 1/4" female*	•							
		G 1/8" female								
		G 1/4" female for comp	ression fittings							
		NPT 1/4" female								
	Valve at inlet* or outlet	With standard knob*								
		Without valve								
		. C								
Technical data	Туре	V-100 55	V-100 80	V-100 140						
	Turndown ratio	10:1	10:1	10:1						
	Accuracy in % of full scale	±5%	±5%	±5%						
	Measuring tube length	55 mm	±3 %	140 mm						
		40 mm								
	Scale length		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 certific	cate)								
Options	Additional flow rate table for mm									
	Laboratory base									
	Back cover (milky plexiglass)									
	Limit switch: min. limit switch, max. limit switch									
	Relays 24 Vdc for limit switch, relays 230 Vac for limit switch									
	Hose connectors PVC									
	Customized measuring tube scal	e								
Cotur	Cature C (atom dame)	Cotup L (staisland								
Setup	Setup S (standard)	Setup L (stainless-stee	Setup R (S	Setup R (stainless-steel only)						
	Setup A (stainless-steel only)	Setup T (stainless-stee	I only) Setup O (s	stainless-steel only)						

Measuring ranges variable area flowmeters V-100

The measuring tubes are available with three different scales:

1. Measuring range for dire	ct reading scales ·	- Standard scales	5							
Medium	Air									
Reference conditions	In	<u>/h</u> / 1.21 bara / 20	°C	<u>mln/</u>	<u>'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 / 20	0 °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		X					
	140 - 1400	_	140 - 1400							
	-	_	200 – 2000							
Medium			Wa	ater						
Reference conditions	<u>I/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	0.5 - 5 - 2.5 - 25 4 - 40 6 -60		-	0.5 – 5					
	-			-	1.2 – 12					
	2.5			-	2.5 – 25					
	4 -			-	4 - 40 6 - 60					
	6 -			-						
	7 -	- 70		-	7 – 70					

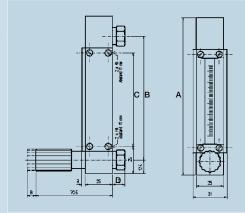
2. Measuring range for mm scales (with flow table) - For varying operating conditions (temperature, pressure, medium)									
Medium		Air		Water					
Reference conditions	<u>m/h</u> / 1.21	<u>In/h / 1.2</u> 1 bara / 20 °C		<u>l/h</u> / 20 °C					
Measuring range	smallest	highest	smallest	highest					
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



Turne	Dimensions in mm						
Туре	А	В	С				
V-100 55	120.5	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	v								
Instrument size	55					А						
	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						к					
Setup	Setup S**						S					
	Setup L (stainless steel only)						L					
	Setup R (stainless steel only)						R	1				
	Setup A (stainless steel only)						A					
	Setup T (stainless steel only)						т					
	Setup O (stainless steel only)						o)				
	Customer-specific / OEM						к	:				
Valve (position)	Valve at the inlet**							S				
	Valve at the outlet							А				
	Without valve							0				
	Customer-specific / OEM					C		к				
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		C							D		
	Customer-specific / OEM			11						к		
Measuring tube scale	Millimetric scale										м	
	Direct reading scale										D	
	Customer-specific / OEM										к	
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											I
	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											к
Type code		F	L	. v	_				-			
** Standard												

** 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: +41 (0)61 756 63 00

Or write us an e-mail: info@voegtlin.com

You will find your local Vögtlin sales partner on the internet: www.voegtlin.com

> Vögtlin Instruments GmbH – flow technology Langenhagstrasse 1 | 4147 Aesch (Switzerland) Phone +41 (0)61 756 63 00 | Fax +41 (0)61 756 63 01 www.voegtlin.com | info@voegtlin.com

