



Design and applications

Wherever a robust and reliable device for the indication of momentary values and the monitoring of flows in pipelines is required in plant engineering, the SGA is the right choice as a reliable unit for the measurement of fluids and gases. This flow meter is available in a variety of cast iron versions for the application with various media and pressures.

The measuring range for H₂O is 0.012 - 0.12 m³/h to 12 - 120 m³/h, the measuring range for gas is 0.15 - 1.5 to 100 - 1000 m³/h air at STP.

Each unit is calibrated to meet the requirements of the respective customer and is fitted with a scale specific for the media to be measured.

The function of the SGA is based on the float principle. Our technical documents provide a detailed explanation of the function and measuring principle of VA flow meters.



- pressure resistant armature for vertical installation
- wide range of measurement
- designed for easy maintenance
- for flow measurement of fluids and gases, with NBR-lining for acids, alkaline solutions and aggressive gases
- wide range of available materials
- temperature resistant up to 150 °C



Kirchner und Tochter



Technical data

Nominal pressure rating	PN 10, optionally made of cast steel EN-GJL-200 PN 25 – PN 40
Temperature resistance of the armature	Standard max. 150 °C rubberized max. 90 °C Special design on request
Measuring range	1:10
Accuracy class Error limit (G) Linear limit (qG)	VDE/VDI 3513 page 2 (08/2008) 2,5 % 50 %
Connection	DN 15 – 125, optional DN 150 acc. to DIN 2501

The medium to be measured must not freeze

Materials

Armature	Grey cast iron EN-GJL-200
Corrosion protection of parts in contact with medium	Epoxy paint, kiln-dried traffic blue (RAL 5017) satin finished corrosion class: C2
Measuring cone	Borosilicate glass acc. to DIN ISO 3585
Sight glass	Borosilicate glass acc. to DIN ISO 7081
Gaskets	Sil – C 4400, other on request
Float for fluids	1.4571
Float for gases	Aluminium
Guide rod	1.4571
Inserts	S355
Special designs:	Corrosion protection off all parts in contact with medium in:
Armature, Cast iron, lining	natural rubber
Seals	SIL – C 8200
Float	1.4571, PVC, PP, PVDF
Guide rod	1.4571, PVC, PP, PVDF
Inserts	1.4571, PVC, PP, PVDF

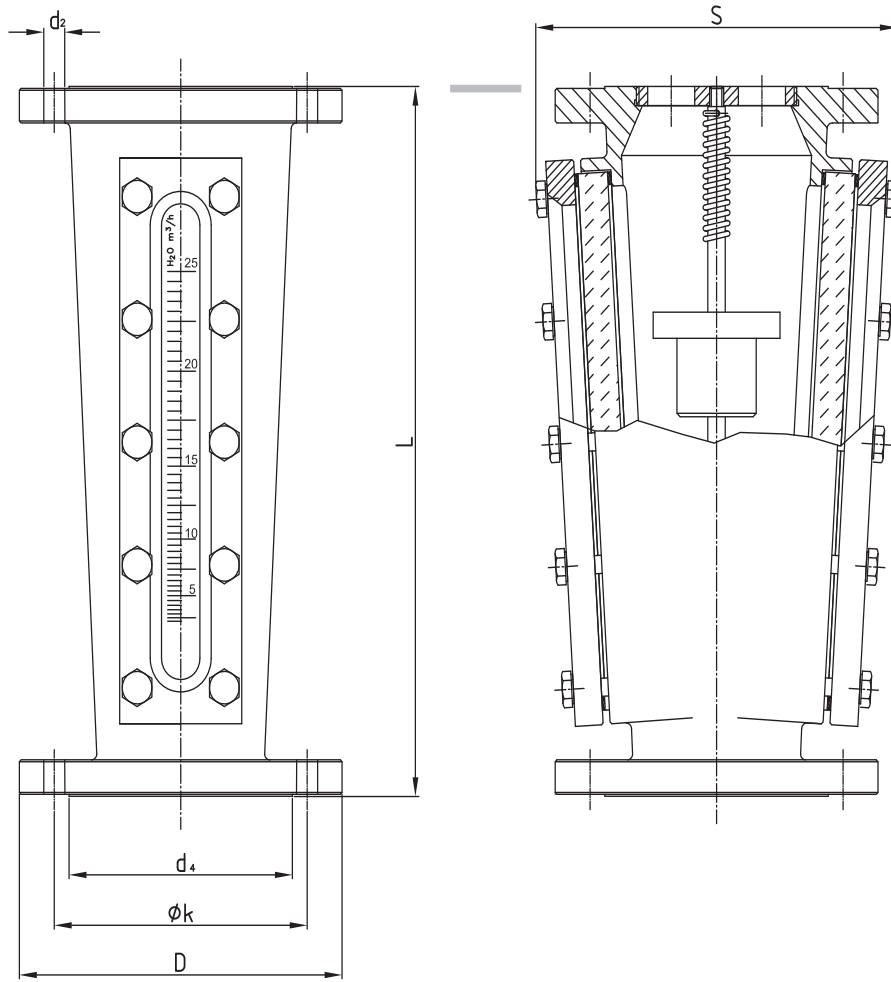
Other materials on request

Dimensions

DN	S	L	SGA					Number of screws	Weight in kg
			d ₂	d ₄	D	ØK			
15	139	370	M 12	52	95	65	4	14	
25	169	370	M 12	70	115	85	4	18	
40	187	370	M 16	92	150	110	4	19	
40 K	159	370	M 16	92	150	110	4	17	
50	212	370	M 16	105	165	125	4	25	
50 K	168	370	Ø 18	105	165	125	4	18	
65	224	370	M 16	128	185	145	4	21	
80	229	370	M 16	142	200	160	8	27	
100	229	370	Ø 18	165	220	180	8	30	
125	260	480	Ø 18	190	250	210	8	43	
150	260	480	Ø 22	215	285	240	8	46	

All dimensions in mm

SGA



Measuring range (min. and max. measuring range; all intermediate measuring ranges are possible)

DN	Measuring range m ³ /h H ₂ O	Measuring range m ³ /h air at STP ³⁾	max. operating pressure ²⁾ in bar at 20 °C
15	0,012 – 0,12 0,12 – 1,2	0,15 – 1,5 1,6 – 16	10
25	0,1 – 1 0,3 – 3	1,3 – 13 3,6 – 36	10
40	0,1 – 1 0,8 – 8	1,3 – 13 8 – 80	10
40 K	0,8 – 8 1,5 – 15	8 – 80 15 – 150	10
50	0,4 – 4 1,6 – 16	3,5 – 35 16 – 160	10
50 K	0,8 – 6 2 – 20	9 – 90 30 – 300	10
65	2 – 20 3 – 35	14 – 140 40 – 400	10
80	2,5 – 20 6 – 60 ¹⁾	15 – 150 50 – 500	10
100	2,5 – 20 6 – 60 ¹⁾	15 – 150 60 – 600	10
125	8 – 80 12 – 120	47 – 470 100 – 1000	10
150	8 – 80 12 – 120	47 – 470 100 – 1000	10

Measuring ranges for other substances and operating conditions on request

¹⁾ max. value only for floats made of 1.4571

²⁾ refers to grey cast iron EN-GJL-200

³⁾ at STP: at standard conditions (0°C and 1,013 bar abs.)



Proper use

The user is responsible for assessing the suitability of the flow meters for his case of application, for use as prescribed, and for material compatibility as regards the liquid product used in his process.

The manufacturer shall not be liable for any damage arising from incorrect or improper use of the devices.

Pressure surges can cause glass breakage, and should therefore generally be avoided. The limit values given in the data sheet should be observed.

In all other respects we advise following the installation recommendations specified in Code VDI/VDE 3513, Sheet 3.

The equipment from **Kirchner und Tochter** has been tested in compliance with applicable CE-regulations of the European Community.

The respective declaration of conformity is available on request.

Technical data supplied without liability. The current valid version of our documents can be found under this URL: www.kt-web.de

The **Kirchner und Tochter** QM-System is certified in accordance with DIN-EN-ISO 9001:2008. The quality is systematically adapted to the continuously increasing demands.



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