



Variable Area Flow Meter

BGK

- Flow measuring of liquids and gas
- Can be used in the chemical industry or in medical or laboratory engineering.
- Precision, reliability and efficiency are the remarkable features of this device.
- Robust mechanical system with a low rate of wear

Function

The fluid flows from bottom to top through the meter tube of the flow meter. The float is lifted until an annular gap between the measuring cone and the float is produced which corresponds to the flow.

The forces acting on the float are in equilibrium.

The height of the float resulting from the flow rate is transmitted by the permanent magnet in the float through the magnetic tracking system in a rotation to the pointer axis of the analog indicator unit.

The variable-area flowmeter consists of a stainless steel device with an integrated conical stainless steel measuringtube and a vertically movable float.

Application

The KDS meter is suitable for flow measurement of liquid or gaseous products in pipes.

It shows the current flow rate in volume or mass per unit in time.

Applications: flow measurement, dosing, monitoring, adjusting and control of liquid and gaseous products.

The devices are available with additional electrical equipment for process monitoring and control.

- Design for horizontal and vertical connections available
- A variety of sealing materials
- Wall mounting possibility (KDS-C)
- Flow Controller (option)
- High pressure application (option)



Technical data

Sensor

Materials:

Measuring cone, float, armature: Stainless steel
other materials on request

Sealing: NBR, Viton, PTFE

Process connection: Flanges acc. to EN 1092, ASME B16.5, DIN2512,
JIS, special connections on request

Nominal pressure: PN 40, ASME CI150 / 300 / 600 (Standard)
higher pressure on request

Process temperature: -40°C up to +130°C (without switch)
-25°C up to +100°C (with switch)

Ambient temperature: -25°C up to +65°C

Weight: ca. 2,4 kg

Ingress protection: IP 65 (EN60529)

Certification

Explosion protection: BVS 03 ATEX H/B 113

Ranges

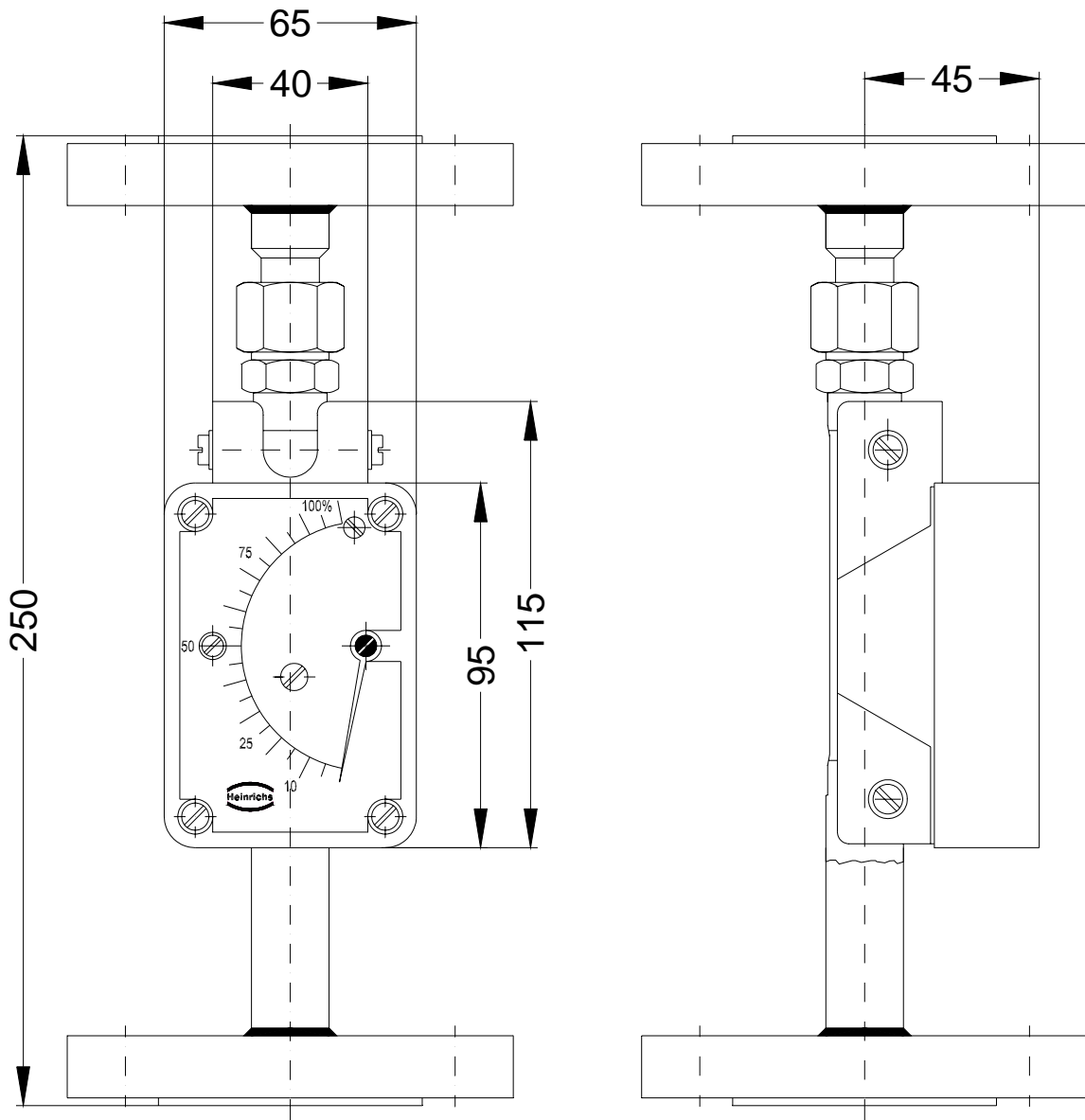
Range	H ₂ O [l/h]	Luft [NI/h]	Pressure drop H ₂ O [mbar]
A	0,1-1,0	3,0-30	6,5
B	0,25-2,5	7,5-75	7,5
C	0,6-6,0	18-180	7,5
D	1,0-10	30-300	8
E	1,6-16	48-480	10
F	2,5-25	75-750	13
G	4,0-40	120-1200	15
H	6,0-60	180-1800	25
I	10-100	300-3000	30
J	16-160	480-4800	50
K	20-200	600-6000	80

Reference condition: according to IEC 770:
Water at 20°C



Display	%-scale Measuring range scale
Outputs	inductive switches inductive switch (safe technology)
Ambient temperature:	-25°C up to +65°C
<u>Accuracy</u> Liquid/Gas:	± 3% of upper range value
<u>Certification</u> Explosion protection: Type of protection:	PTB 00 ATEX 2048 X (gas) II 2G EEx ia IIC T6-T4
Explosion protection: Type of protection:	ZELM 03 ATEX 0128 X (dust) II 1D Ex iaD 20 T... °C
CE-Marking:	Explosion Protection Directive 94/9/EC
Electromagnetic compatibility:	EMC-Directive 89/336/EEC EN 61000-6-3:2001 (emissions residential environments) EN 61000-6-2:1999 (immunity for industrial environments) EN 55011:1998+A1: 1999 Group 1, Class B (radio interference)

Dimension



For further information see device description KDS-BGK_GB_XX_en.
Subjects to change without notice.

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