



Variable Area Flow Meter

K17

- 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
- Extremely compact design





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 measured value is displayed on the measuring-tube scale with the upper edge or the indicator edge of the float (ball).

The variable-area flowmeter consists of a stainless steel device with an integrated conical measuringtube made of glass and a vertically movable float. The valve for setting the flow rate is built-in

Application

The K09 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.

- A variety of sealing materials
- Wall mounting possibility
- Flow Controller (option) as inlet or outlet differential pressure regulator
- Contacts

Technical Data:

Materials:

Glass tube:	Borosilicate glass
Float:	st.st. 1.4401 (316), glass,
Float stop:	st.st., PVDF
Connections	1.4404 (316 L) other materials on request
Seals (o-rings):	Viton, FFKM, (PTFE on request)

Process connections: 1/4" NPT (F), G 1/4 , PVC hose connection 8 mm
other connections on request

Max. pressure: PN 10

Process temperature: -20 °C to +100 °C
-20 °C to +70 °C (c/w limit switches)

Ambient temperature: -20 °C to +100 °C
-20 °C to +70 °C (c/w limit switches)

Ingress protection: IP 65 (EN 60529)

Measuring accuracy

Liquids / gases: ± 2 % QG 50 acc. VDE/VDI 3513 page 2

V / N
(differential pressure regulator) ± 2.5 % / ± 5 % FS
within 10-100% of the range

Repeatability

Liquids / gases ± 1.0 % FS

V / N
(differential pressure regulator) ± 1.5 % / 2.5 % FS



Electrical output signals

inductive limit switches

Certificates and approvals

Explosion protection:

 II 2GD IIC TX (for mech. Instrument)

Contacts
Ignition category

PTB 00 ATEX 2128 X (c/w limit switches)
II 2G Ex ia IIC T6-T4

CE-marking:

Ex-directive 94/9/EG

EMC:

EMC-directive 2004/108/EG

PED:

97/23/EG

Weights:

0,5 kg **Standard**
0,9 kg **c/w differential pressure regulator**

Ranges

Measuring ranges water 20 °C					Measuring ranges air 1,013 bar abs. 20 °C				
Float st.st. 1.4401 (316L) / glass					Float st.st. 1.4401 (316L) / glass				
Range N°	Water l/h	Float material	ø Valve seat (mm)	Press. loss (mbar)	Range N°	air l/h	Float material	ø Valve seat (mm)	Press. loss (mbar)
A1**	0,02-0,25	glass	2,8	2	C1**	2-20	glass	2,8	1
A2**	0,08-0,7	glass	2,8	3	C2**	4-40	glass	2,8	2
B1	0,1-1	1.4401	2,8	2	D1	5-50	1.4401	2,8	1
B2	0,25-2,5	1.4401	2,8	3	D2	10-100	1.4401	2,8	2
B3	1,0-10	1.4401	2,8	3	C3**	12-120	glass	2,8	2
B4	1,5-16	1.4401	2,8	5	D3	25-250	1.4401	2,8	2
B5	2,5-25	1.4401	2,8	5	D4	30-350	1.4401	2,8	2
B6	4-40	1.4401	2,8	5	D5	50-450	1.4401	2,8	3
B7	5-65	1.4401	2,8	5	D6	60-800	1.4401	2,8	3
B8*	6-63	1.4401	2,8	6	D7	120-1200	1.4401	2,8	3
B9**	10-100	1.4401	2,8	6	D8*	200-2000	1.4401	2,8	3
					D9**	300-3000	1.4401	2,8	3

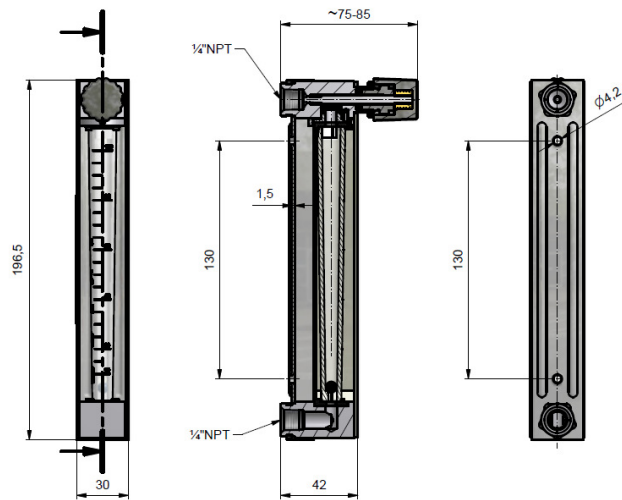
All ranges at fully opened valve

** Not available with limit switch

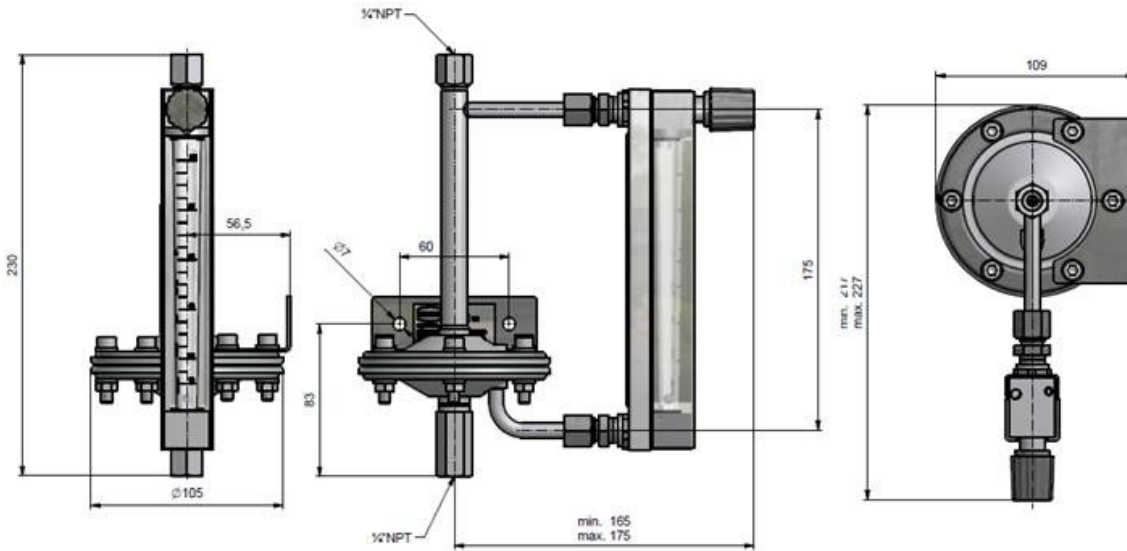
* Limited adjustment range of the limit switch/ limit switch can only be adjusted as min. contact

All ranges and pressure loss at fully opened valve !

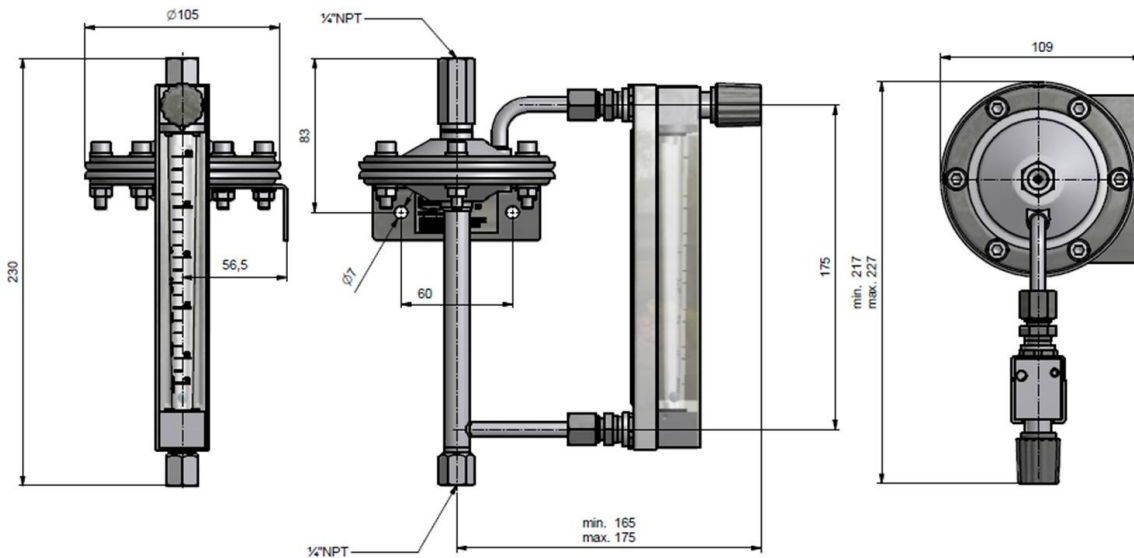
Dimensions



K17-R...-V with connection 1/4" NPT (F) ; version with constant outlet pressure



K17-R...-V with connection 1/4" NPT (F) ; version with constant inlet pressure



More information's of the K17 can be found in the device description or on the operating instructions

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