

Sprinkler measuring orifice

SMB/SMB-OE

Design and application

The sprinkler measuring orifice SMB is used for flow measuring in stationary sprinkler systems.

The SMB is integrated into the pipework as an intermediate flange assembly. A differential pressure drop occurs at the orifice, which is quadriform proportional to the volume flow rate of the pipework.

The differential pressure is indicated by a differential-pressure gauge. Scaling of the pressure gauge is in flow units.

The pointer position immediately indicates the current volume flow rate through the pipeline.

The differential pressure is displayed as a percentage value on a pressure gauge (SMB-OE). The operator can read the equivalent volume from a label fixed to the pressure gauge.

Thanks to its particular articulate design, integration of the SMB is possible in any flow direction. The display pivots by 180 degrees in both directions.

Optionally, where there is mechanical vibration, orifice and pressure gauge can be decoupled by means of the Minimes tube connection (pressure gauge for wall mounting).

VdS approval

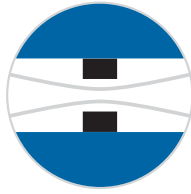
The SMB has been approved by the VdS damage prevention for use in stationary sprinkler systems.



- VdS approval no.: G 4990049
- all flow directions possible with one device
- mounting position freely selectable
- dial gauge pivoting by $\pm 180^\circ$
- five different nominal width
- measuring accuracy 2,5 % FS
- optional: indicator part with scale in percentages (SMB-OE)
- optional: decoupling of indicator part and orifice



Kirchner und Tochter



SMB/SMB-OE

Series

Design	Description
SMB	Scaling of scale reading plate in m ³ /min
SMB-OE	Scaling of scale reading plate in %

Technical data

VdS approval	no.: G 4990049
Measuring principle	differential pressure metering at orifice
Masuring accuracy	2,5% at the approved full scale range value
max. working pressure	16 bar
Assembly	Intermediate flange assembly in accordance with VdS guideline 2092 chapter 9

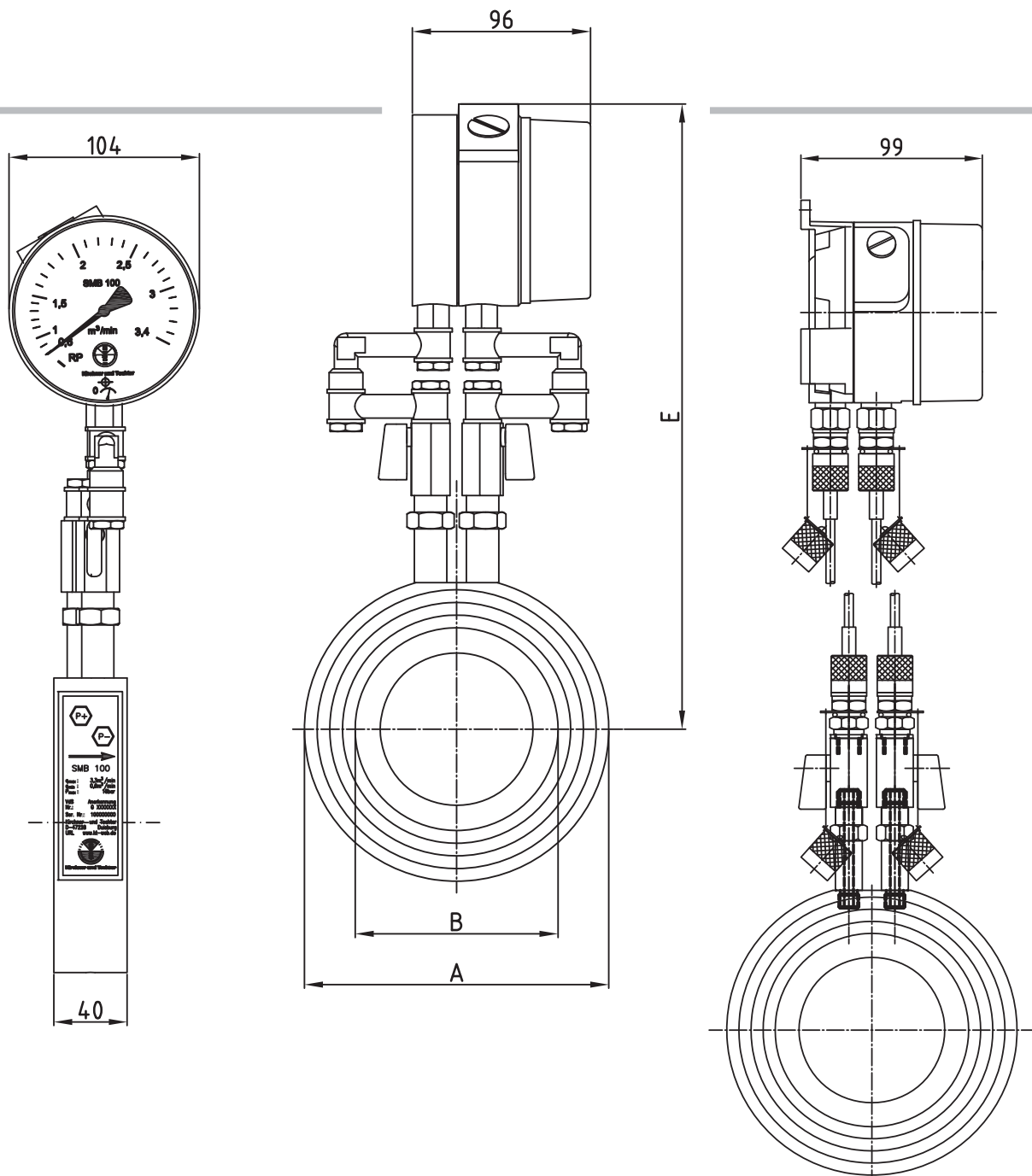
Materials

Orifice	hard coated aluminium
Screwed connections	nickel-plated brass, 1.4308
Ball valves	nickel-plated brass
Dial gauge	aluminium, coated

Dimensions

Model	A	B	E
SMB 80	144	84,1	311
SMB 100	164	108,9	321
SMB 150	220	161,8	349
SMB 200	275	211,1	377
SMB 250	331	264,5	406

Dimensional drawing: see next page



SMB/SMB-OE

SMB/SMB-OE

SMB/SMB-OE with
Minimesse hose connection

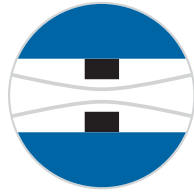
Measuring and accuracy

Model	Nominal width DN	Shown measuring range [m ³ /h /min] ¹⁾		VdS approved measuring range [m ³ /min] (% with SMB-OE)		max. deviation in the approved full scale range	
						[m ³ /min]	(%)
SMB 80	80	0,4	— 2,1	0,6 (28,5%)	— 2,1 (100%)	± 0,0525	± 2,5
SMB 100	100	0,6	— 3,4	1 (29,4%)	— 3,4 (100%)	± 0,085	± 2,5
SMB 150	150	1,4	— 7,25	2 (27,58%)	— 7,25 (100%)	± 0,18125	± 2,5
SMB 200	200	2,6	— 12,35	4 (32,35%)	— 12,35 (100%)	± 0,30875	± 2,5
SMB 250	250	3	— 18,12	4 (22,85%)	— 18,12 (100%)	± 0,453	± 2,5

2,5% at the approved full scale range value

5,0% at the approved measuring range start value

The inter-values for the permitted measuring accuracy are the result by linear interpolation.



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.



Kirchner und Tochter

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