

# Variable-Area Flowmeter

## FM

### Application

The corrosion resistant compact variable-area flowmeters series **FM** are used for continuous extractive gas analytics. They are usually integrated downstream the sample gas cooler and serve e.g. for adjustment of the sample gas flow rate for analyzer and bypass within a gas analysis system.

### Technology

The highly corrosion resistant compact variable-area flowmeters series **FM** with their measuring tube made of borosilicate glass are equipped with a precise and very robust stainless-steel needle valve. Due to the special design the valve has an almost linear control characteristic. The flowmeters can be equipped with a sensor light barrier which transmits a signal in case of missing flow via connected optional electronic control **EC72.01**. Due to the G1/8" f-thread the sample gas connections can be determined variably by means of an appropriate screw fitting.

### Functions

The flow is clearly visible in the measuring glass of the flowmeter and the current flow rate can be read easily from the scale directly at the top of the float. The linear control characteristic of the fine adjustment valve enables monitoring and dosing of extremely low flow quantities.



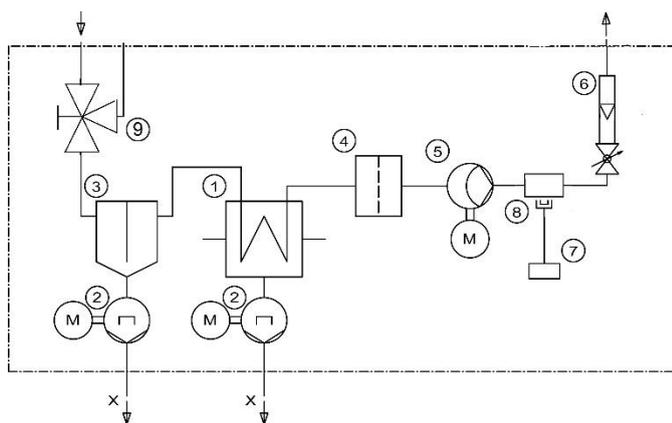
- ✓ Exact linear flow rate adjustment with precise fine adjustment valve
- ✓ High chemical resistance
- ✓ Very compact design
- ✓ Easy mounting and integration in front panels or on mounting plates with optional mounting set
- ✓ With sensor light barrier for flow alarm as option
- ✓ Line breakage monitoring of flow alarm sensor with electronic control EC72.01

## Technical Data

FM		FM140	FM150	FM250	FM500
Part no.		92300239	92300238*	92300584*	92300240*
Mounting position		45° (gas coler)	vertical		
Measuring range Vn	l/h Luft 1,2 bar abs.	14-140	15-150	25-250	50-500
Sample gas connections		G1/8"i (DN4/6 in optional mounting set)			
Max. media temperature	°C	100			
Materials media wetted parts		glass, PVDF, PEEK, FKM			
Max. pressure	bar	4			
Calibration		air at 20°C and 1,2 bar abs.			
<b>Design data</b>					
Dimensions	mm	94 x 25 x 35			
Weight	kg	0,1			
Mounting		front panel or optional wall mounting with mounting set			
<b>Options</b>					
Sensor light barrier		integrated in flowmeter, part no. 92300065			
Part numbers electronic control EC72.01 for light barrier		92300058 24VDC 92300059 230VAC 50/60Hz 92300060 115VAC 50/60Hz			

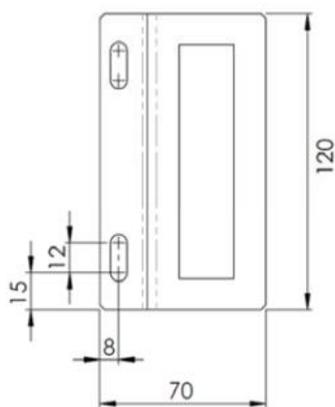
\*Can be purchased as KIT, containing additionally mounting set with mounting bracket and 2 x PVDF-screw fitting G1/8"a - DN4/6

## Application example



- ① Heat exchanger
- ② Condensate pump
- ③ Condensate pre-separator (Option)
- ④ PTFE depth filter
- ⑤ Sample gas pump
- ⑥ **Flow meter FM**
- ⑦ Electronic control
- ⑧ Condensate sensor
- ⑨ Test gas valve

## Mounting bracket and electronic control



Electronic Control EC72.01  
(separte data sheet)