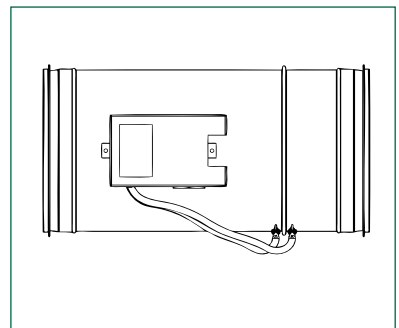
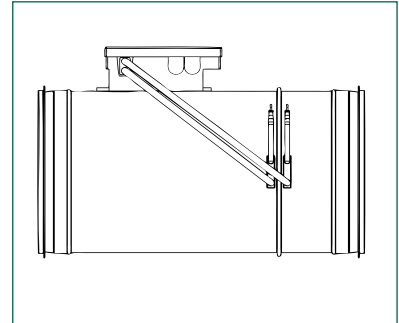


EMSF Measuring device

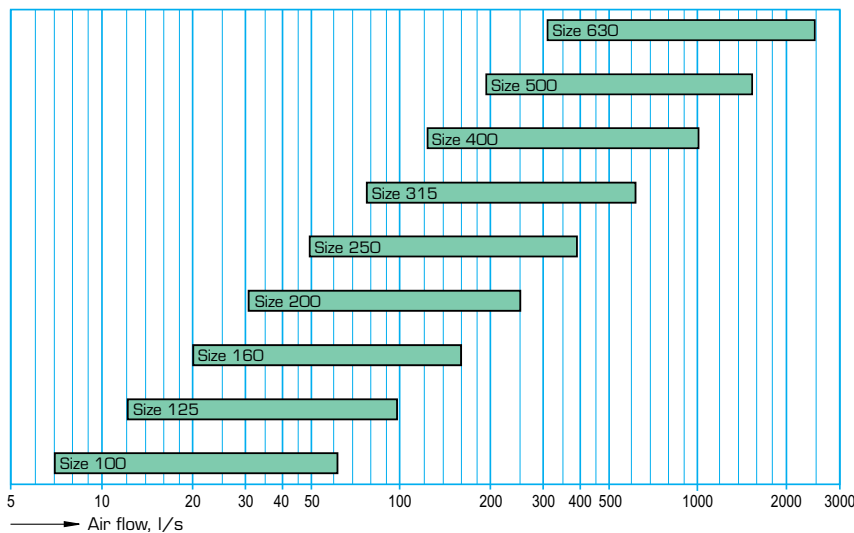


EMSF is a measuring device for the OPTIVENT and OPTILAB system. The measuring device generates an electrical voltage or a pneumatic pressure which represents the actual air flow. The EMSF measuring device is available in nine sizes with circular connection spigots for duct diameters from 100 to 630 mm.

Product description

- Electronic and pneumatic control equipment
- Integrated orifice plate measurement circuits for control and manual flow measurement.
- Functionally tested and calibrated.

Quick selection



Recommended limits for air flow. The lowest air flows correspond to air speed of 1 m/s, which is the recommended minimum air flow to fulfil the $\pm 5\%$ measuring accuracy.

Product code example:

EMSF-1-100-1 Measuring device equipped with Belimo VRD-2

Description, dimensions and weights, product code

Description

EMSF is a measuring device for the OPTIVENT system. The measuring device generates an electrical voltage or a pneumatic pressure which represents the actual air flow. The EMSF measuring device is available in nine sizes with circular connection spigots for duct diameters from 100 till 630 mm.

The device is supplied:

- with electronic control equipment as standard.
- with pneumatic control equipment on request.
- with integral separate measurement circuits for control and for manual flow measurement.
- functionally tested and calibrated.

Measuring device

- Circular model with duct connections fitted with sealing rings made of rubber
- Apparatus sizes with nominal connection diameters from 100 to 630 mm
- Supplied as standard with electronic control equipment, but can be supplied on request with pneumatic control equipment.
- Integrated orifice plate measurement with separate measurement circuits for control and manual flow measurement
- The measuring device is functionally tested and calibrated with the air flow at the factory.
- Air tightness class B in accordance with EN1751:1998.

Materials

Any components in contact with the ventilation air conform to corrosivity classes C3 or C4 in accordance with SS-EN-ISO 12944-2.

The duct connections are fitted with sealing rings made of rubber.

Connection to duct system

The measuring device can be connected directly to a 90°-bend on the input side. When connecting to a T-piece we recommend to connect the measuring device to a straight duct which has a length of at least twice the connection diameter.

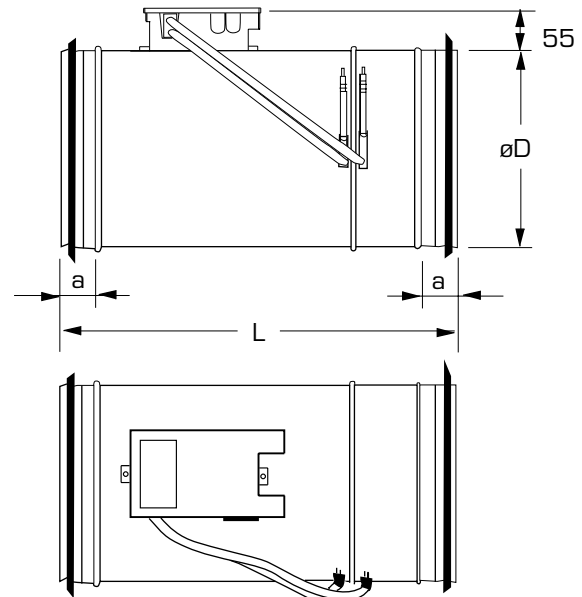
Nominal air flow and k-factors

Size	q _{nom} (l/s)	k
100	62	4,0
125	98	6,0
160	160	10
200	251	16
250	392	25
315	623	40
400	1005	64
500	1570	98
630	2493	152

Safety distances

Type of flow disturbance	The required safety distance L m ₂ = ±5%
T-piece	≥ 2 x ØD
Bend	≥ 1 x ØD

Dimensions and weights



Size	a	øD	L	Weight, kg
100	35	99	400	1.0
125	35	124	400	1.2
160	35	159	400	1.5
200	35	199	400	1.8
250	40	249	580	2.6
315	40	314	580	3.1
400	60	399	650	5.6
500	60	499	850	8.6
630	60	629	850	10.5

Product code

Measuring device

EMSF-a-bbb-c

Actuator

- 1 = Belimo VRD-2
- 2 = Alternative control equipment (coding separately)

Size

100, 125, 160, 200, 250, 315, 400, 500, 630

Material

- 1 = Corrosivity class C3, galvanized sheet steel
- 2 = Corrosivity class C4, (applies to parts in contact with the ventilation air)

Control equipment

Technical data for VRD-2 and ordering codes for alternative control equipment; see "Optivent Control Equipment" catalogue.