



TURBO-LUX® 3 VdS

Fire pump flowmeter for use in test lines of fire protection systems



made
in
Germany

This orifice flowmeter, approved by the VdS, offers you a reliable solution for your fire protection systems. The Turbo-Lux® 3 VdS covers nominal sizes from 2"/DN 50 ... 8"/DN 200 and measures flow rates from 160 ... 14 400 l/min (42 ... 3 804 USgpm).

Due to flexible installation position and flow direction, the Turbo-Lux® 3 VdS can be easily integrated into existing piping systems. The grooved connection allows for quick and secure installation and removal.

ADVANTAGES

- » Easy installation and handling
- » Visualizing of water flow
- » Resistant to vibrations
- » High and consistent reading accuracy
- » Inkl. calibration certificate (optional)

Rely on tested quality and benefit from a robust, vibration-resistant, and low-maintenance design that ensures maximum safety and reliability.



TECHNICAL DATA

System

Measuring principle	Orifice plate flowmeter with variable flowmeter as indication
Messbereich	160 ... 14 400 l/min (42 ... 3 804 USgpm)
Measuring accuracy	± 2.5 % of full scale value
Certificates	VdS G 4070023

Input

Nominal diameters	2"/DN 50 (Ø 60.3 mm / 2.4 in)
	3"/DN 80 (Ø 88.9 mm / 3.5 in)
	4"/DN 100 (Ø 114.3 mm / 4.5 in)
	6"/DN 150 (Ø 168.3 mm / 6.6 in)
	8"/DN 200 (Ø 219.1 mm / 8.6 in)
Pressure limits	16 bar (232 psi)
Hydrostatically strength / Pressure strength	64 bar (928 psi) for 10 min.

Application conditions

Temperature	4 °C ... 50 °C (39 °F ... 122 °F)
Medium	Water

Constructive design

Orifice plate 2"/DN 50 ... 4"/DN 100	Housing tube in stainless steel with turned grooved connection
Orifice plate 6"/DN 150 ... 8"/DN 200	Housing tube in coated steel with rolled grooved connection
Differential pressure tube	Brass
Float	Stainless steel
Bypass orifice	Stainless steel
Filter	Stainless steel
Gasket	NBR

INSTRUCTIONS FOR USE

The use of the flowmeters is allowed with the VdS-approved pipe couplings of the following manufacturers:

Anvil, Jinan Meide (type 1G), Minimax, Mogdal, Tyco (type Grinell Mechanical and G-Fire Steel IPS) and Victaulic (except for pipe coupling type Style 77 and 009N*).

**Victaulic style 009N creates significant cross section reductions with pressure losses in the pipe.*

INSTALLATION NOTES

The Turbo-Lux® 3 VdS is installed using grooved pipe couplings. It is essential to ensure that the couplings used do not reduce the inner diameter of the pipe in the sealing area, as this can cause flow turbulence and measurement inaccuracies.

Before and after the orifice plate a straight calming section is provided as a function of the nominal diameter (D).

By default, there should be a $5 \times D$ straight calming section in front of the orifice plate and a $2 \times D$ straight calming section behind it.

For the installation of valves, pumps, or T-piece pipes, an inlet path of at least $10 \times D$ is required. Of this, at least $5 \times D$ must be a straight section directly in front of the orifice plate.

The connected pipelines must be the same size as the orifice plate.

The pipelines must be completely filled at all times. Examples of special installation situations are illustrated in figures 2 to 5.

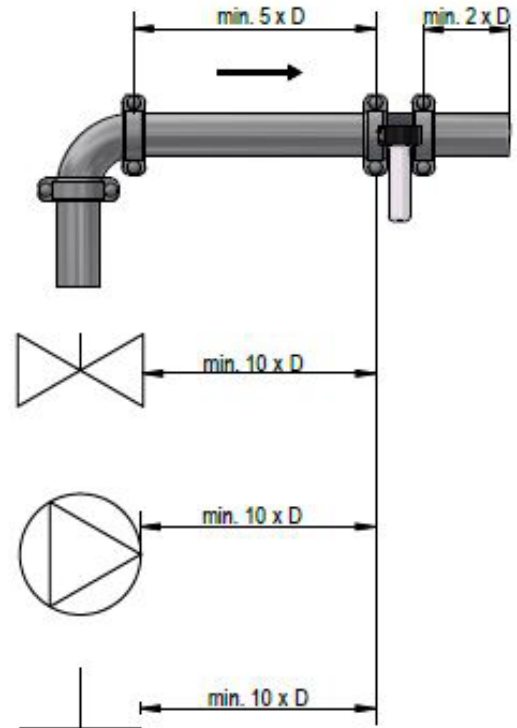


Fig. 1: Inlet path and outflow zone

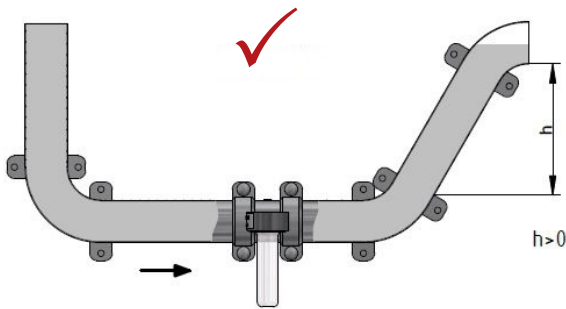


Fig. 2: Turbo-Lux® 3 VdS correct horizontal installation

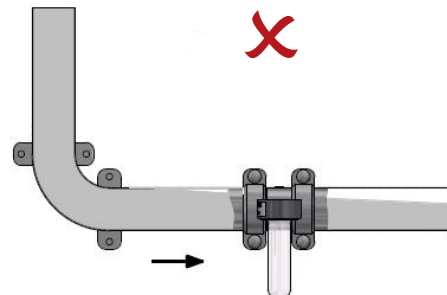


Fig. 3: Turbo-Lux® 3 VdS wrong horizontal installation

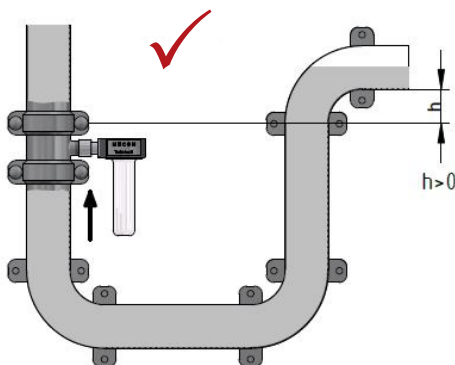


Fig. 4: Turbo-Lux® 3 VdS correct vertical installation

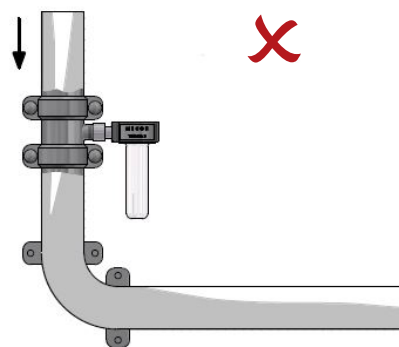


Fig. 5: Turbo-Lux® 3 VdS wrong vertical installation

DIMENSIONS AND WEIGHTS

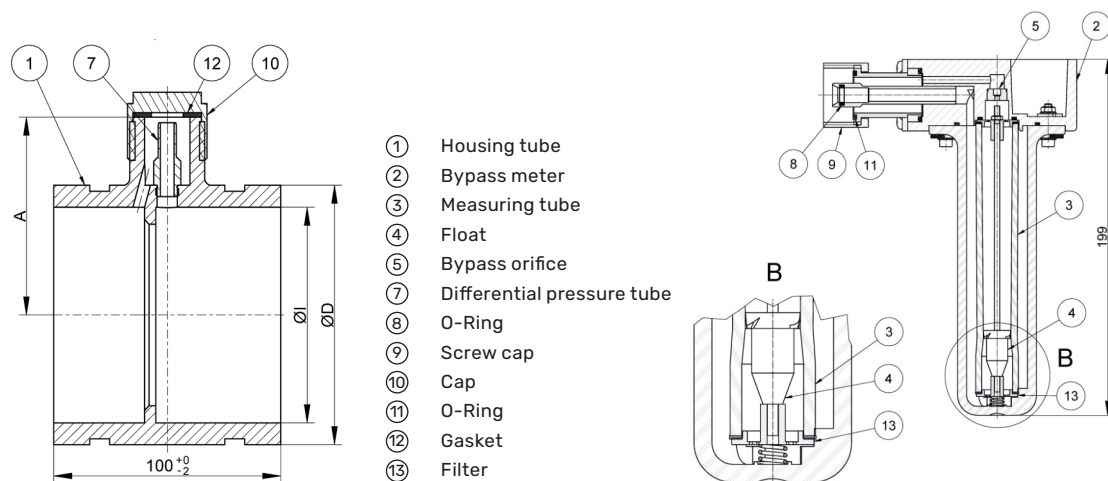


Fig. 6: Turbo-Lux® 3 VdS orifice plate, position drawing and dimensions for 2"/DN 50 ... 4"/DN 100

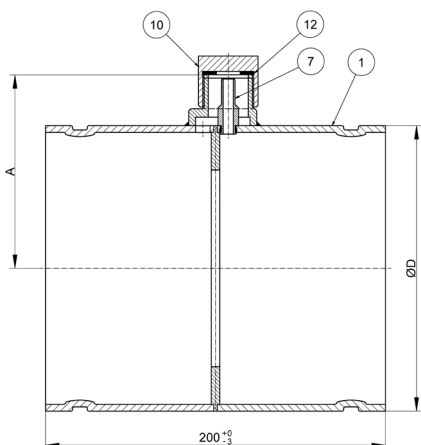


Fig. 7: Turbo-Lux® 3 VdS orifice plate, position drawing and dimensions for 6"/DN 150 ... 8"/DN 200

Nominal diameter	A (mm / in)	ØD (mm / in)	ØI (mm / in)	Weight (kg / lbs)
2"/DN 50	60 / 2.4	60.3 / 2.4	53.0 / 2.1	0.6 / 1.3
3"/DN 80	75 / 3.0	88.9 / 3.5	80.0 / 3.2	1.0 / 2.2
4"/DN 100	87 / 3.4	114.3 / 4.5	100.0 / 4.0	2.0 / 4.4
6"/DN 150	114 / 4.5	168.3 / 6.6	-	4.5 / 9.9
8"/DN 200	140 / 5.5	219.1 / 8.6	-	5.1 / 11.2
Bypass flowmeter	-	-	-	0.6 / 1.3



PRODUCT (VdS approval)

Connection	Measuring range	Order code
DN 50	Qv: 0.16 - 0.8 m³/min	7ME5835-1AA00-0AA0
DN 80	Qv: 0.42 - 2.1 m³/min	7ME5835-2AA00-0AA0
DN 100	Qv: 0.72 - 3.6 m³/min	7ME5835-3AA00-0AA0
DN 150	Qv: 1.44 - 7.2 m³/min	7ME5835-4AA00-0AA0
DN 200	Qv: 2.88 - 14.4 m³/min	7ME5835-5AA00-0AA0

BYPASS METER AND REPLACEMENT PARTS

Product	Order code
Bypass meter	7ME5835-0AB00-0AA0
Bypass meter with calibration certificate	7ME5835-0AB00-1AA0
Replacement cap incl. gasket	ZB-TL3P0-001