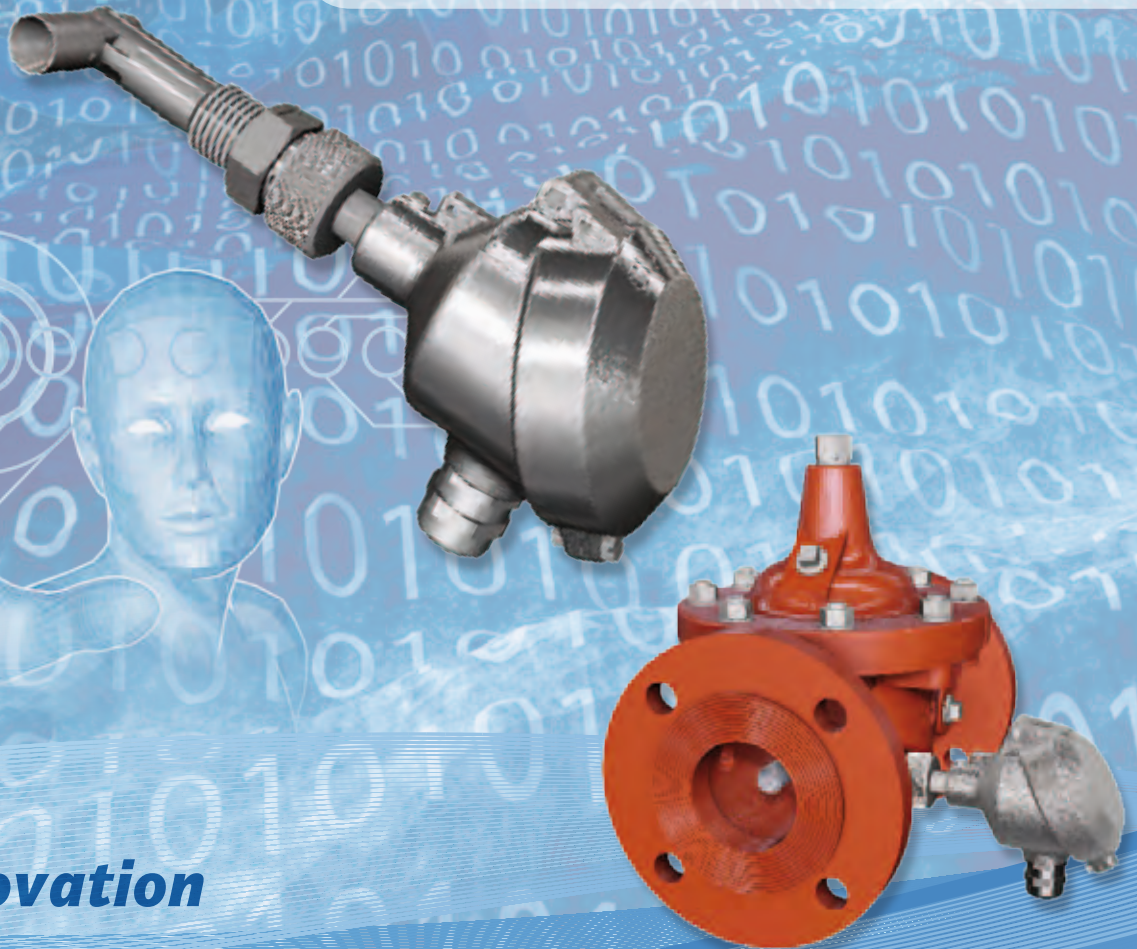


Cla-Val e-FlowMeter

Vortex shedding Flow Meter

- Simple :** Easy to install and commission onto any CLA-VAL regulating valve, including retrofits
- Economical :** Avoids the additional expense of an external flowmeter and minimises the vault size needed
- Precise :** Accurate flow measurement down to 2% precision, certified by independent laboratories
- Robust :** Ensure product longevity with IP68 protection and stainless steel construction
- Flexibility :** Choice of output signals includes 4-20 mA, analog pulse, or digital pulse



***Leading
the Innovation***

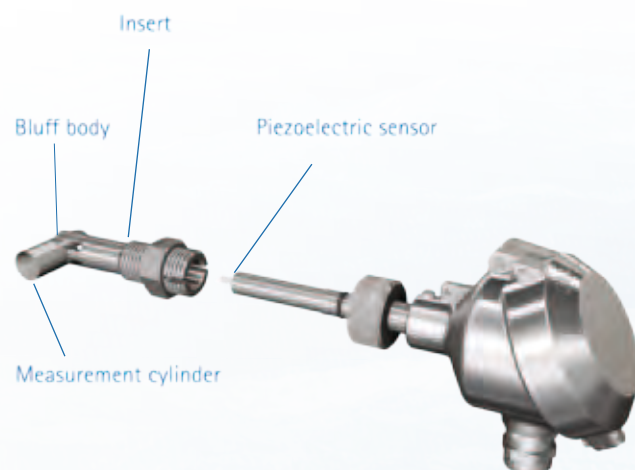
CLA-VAL e-FlowMeter

Vortex shedding Flow Meter

DESCRIPTION

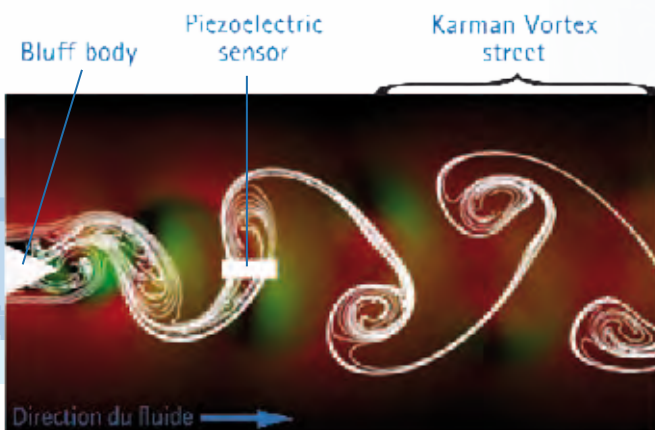
The CLA-VAL e-FlowMeter is an insertion flowmeter that can be assembled on CLA-VAL regulating valves. Thanks to a patented insertion tool, the e-FlowMeter can be installed on-site, excluding the need for an external flowmeter, and thus avoiding the associated installation costs and minimizing the vault size. Being located at the inlet of the valve, the e-FlowMeter can be installed directly after elbows, valves or tapers.

The e-FlowMeter determines the flow according to the vortex principle, allowing very accurate flow measurements. The e-FlowMeter measurement precision has been tested and validated by independent and renowned laboratories to ensure a high level of reliability.



FUNCTIONALITY

CLA-VAL's e-FlowMeter functionality is based on the Karman vortex street phenomenon, where patterns of swirling vortices are caused by separation of the flow.



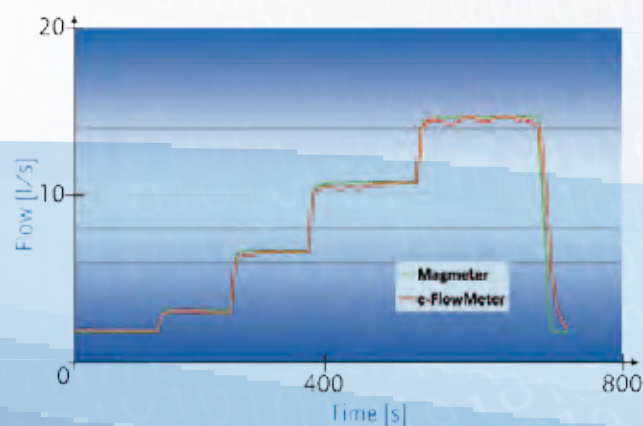
The vortices are captured and analyzed by the state-of-the-art CLA-VAL technology, allowing measurements precision of down to 2% of the read value. The e-FlowMeter can measure velocities starting at 0.1 m/s, outputting the correspondent flow value on a 4-20 mA, an analog pulse, or a digital pulse signal, according to the application needs.

An analog pulse is a standard pulse signal, which cycle and width will represent the measured value, whereas a digital pulse is a binary coded pulse over 10 bits.

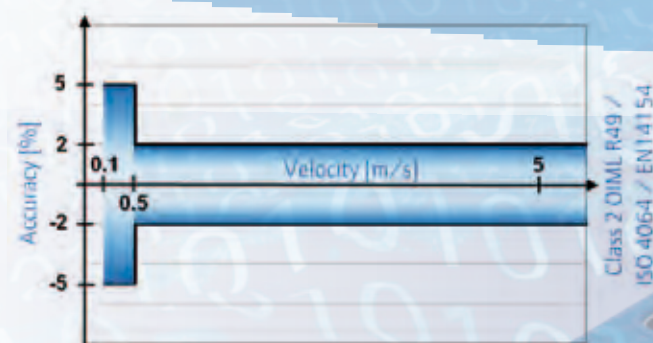
The e-Flow-Meter can be assembled on CLA-VAL valves NGE 65 mm to 600 mm, and GE 65 mm to 400 mm.

PERFORMANCE

The typical performance of the e-FlowMeter with a CLA-VAL NGE 65 mm valve is shown hereafter:



The following curve shows the measurement accuracy variation as function of the speed:



SPECIFICATION

Connection

- 1x 10 meter shielded cable (12-wire)
Wire section: 0.22 mm²
Cable diameter: 6.9 mm

Measurement precision

- Accuracy: 2 % of the read value (0.5 m/s to 6.0 m/s)
5 % of the read value (0.1 m/s to 0.5 m/s)
- Repeatability: <1%

Size

- NGE 65 mm - 600 mm / GE 65 mm - 400 mm
(Note: NGE 65 mm and NGE 80 mm 1/2» factory threaded)

Pressure range

- PN 25 bar standard. For PN40, please contact CLA-VAL

Operating temperature Protection

- - 10°C to + 80°C (electronics only)

Protection

- IP68, validated 1 month at 2 meter water depth (toggle connection and probe)

Software interface

- Plug & Play
- Compatible with Win 7 & 8 (32 & 64 bit)

Measurement signal loss

- After 30 seconds (default configuration), the 4-20 mA signal falls to 4 mA (by default), and the frequency is "0" in pulse mode

Power supply	Modes	
	4-20 mA	Pulse or Digital Pulse
Voltage	8 VDC to 32 VDC	5 VDC Or 6 VDC to 24 VDC
Consumption	4 mA to 20 mA	3 mA @ 5 VDC <2mA @ 6-24 VDC
Overvoltage protection	Max. 40 VDC	5 VDC power supply: Max. 5.5 VDC 6 to 24 VDC power supply: Max. 40 VDC
Inverted polarity protection	Max. 40 VDC	5 VDC power supply: unprotected 6 to 24 VDC power supply: Max. 40 VDC
Recommended CLA-VAL turbine	e-Power 2 MP e-Power IP	e-Power MP e-Power IP



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WATERWORKS

From the reservoir to the customer tap, the CLA-VAL Company has developed more than 3,500 Automatic Control Valve models.

Accurately controlling pressure, tank level and flows within water networks is the result of more than 80 years of unparalleled expertise.

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