



## BATCHFLUX 5500 C Quick Start

Electromagnetic flowmeter for volumetric filling machines

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### Warnings and symbols used



#### **DANGER!**

*This information refers to the immediate danger when working with electricity.*



#### **DANGER!**

*These warnings must be observed without fail. Even partial disregard of this warning can lead to serious health problems and even death. There is also the risk of seriously damaging the device or parts of the operator's plant.*



#### **WARNING!**

*Disregarding this safety warning, even if only in part, poses the risk of serious health problems. There is also the risk of damaging the device or parts of the operator's plant.*



#### **CAUTION!**

*Disregarding these instructions can result in damage to the device or to parts of the operator's plant.*



#### **INFORMATION!**

*These instructions contain important information for the handling of the device.*



### HANDLING

- This symbol designates all instructions for actions to be carried out by the operator in the specified sequence.

#### **RESULT**

This symbol refers to all important consequences of the previous actions.

### Safety instructions for the operator



#### **CAUTION!**

*Installation, assembly, start-up and maintenance may only be performed by appropriately trained personnel. The regional occupational health and safety directives must always be observed.*



#### **LEGAL NOTICE!**

*The responsibility as to the suitability and intended use of this device rests solely with the user. The supplier assumes no responsibility in the event of improper use by the customer. Improper installation and operation may lead to loss of warranty. In addition, the "Terms and Conditions of Sale" apply. They appear on the back of the invoice and form the basis of the purchase contract.*



#### **INFORMATION!**

- Further information can be found on the supplied CD-ROM in the manual, on the data sheet, in special manuals, certificates and on the manufacturer's website.
- If you need to return the device to the manufacturer or supplier, please fill out the form contained on the CD-ROM and send it with the device. Unfortunately, the manufacturer cannot repair or inspect the device without the completed form.

## 2.1 Scope of delivery

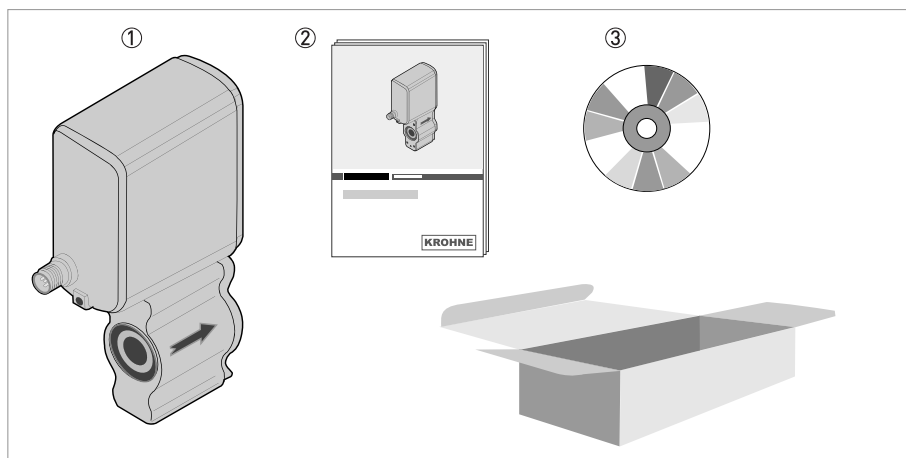


Figure 2-1: Scope of delivery

- ① Flowmeter in ordered size
- ② Product documentation
- ③ CD-ROM with product documentation

## 2.2 Visual check

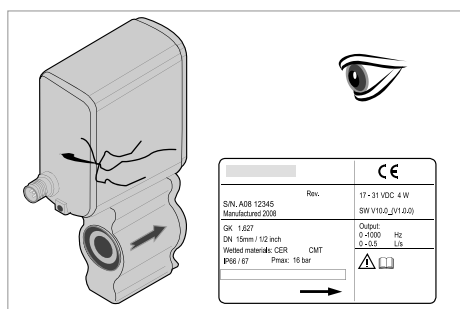


Figure 2-2: Visual check



### **INFORMATION!**

Check the packing list to check if you received completely all that you ordered.



### **INFORMATION!**

Look at the device nameplate to ensure that the device is delivered according to your order. Check for the correct supply voltage printed on the nameplate.

## 2.3 Storage

- Store the device in a dry and dust-free location.
- Avoid lasting direct exposure to the sun.
- Store the device in its original packing.

## 2.4 Installation conditions

### 2.4.1 Inlet and outlet

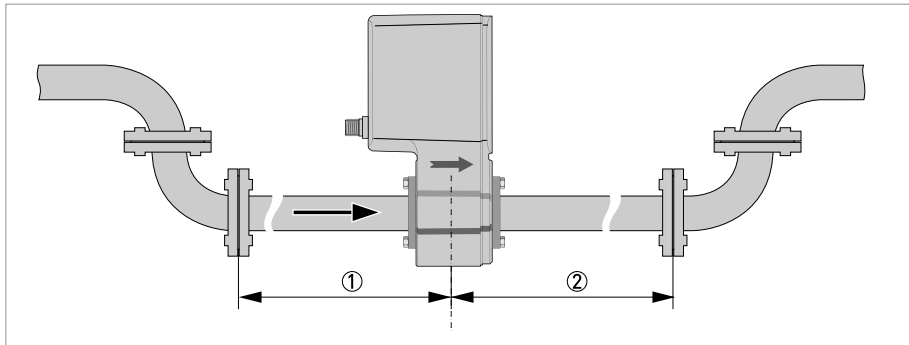


Figure 2-3: Inlet and outlet section

①  $\geq 5$  DN

②  $\geq 2$  DN

### 2.4.2 Mounting position

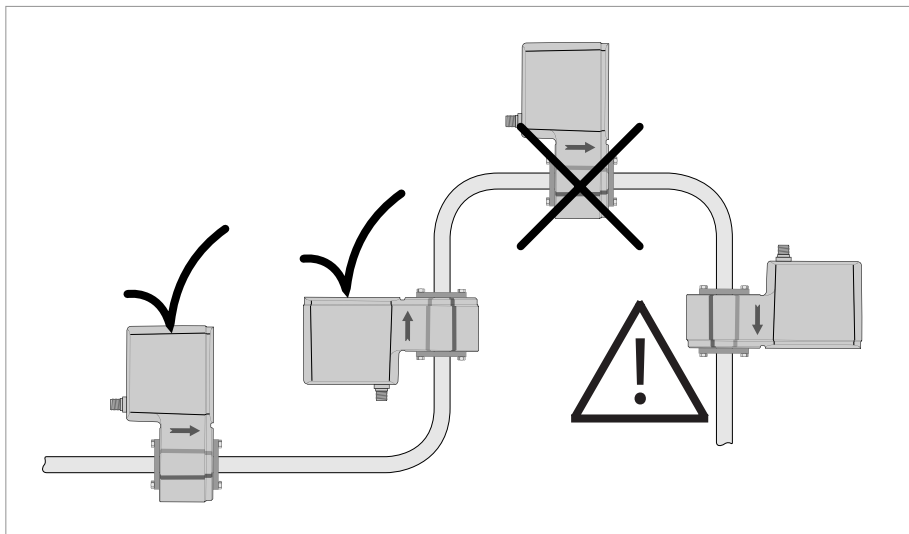


Figure 2-4: Installation in bending pipes



**CAUTION!**

*Avoid draining or partial filling of the flow sensor.*



**WARNING!**

*Vertical down position only in conjunction of a control valve*

### 2.4.3 Hot filling

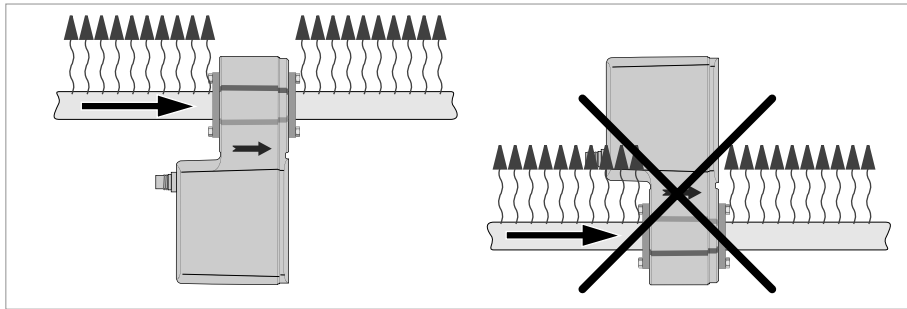


Figure 2-5: Installation position with heated pipes

### 2.4.4 Horizontal pipe run

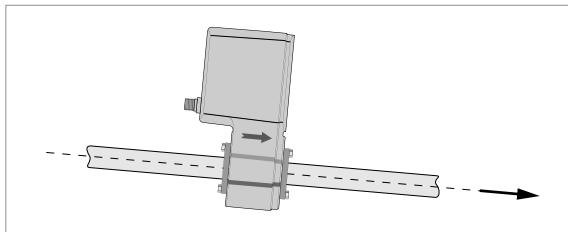


Figure 2-6: Horizontal piperun



**CAUTION!**

*Install in a slightly descending pipe section to prevent air from collecting and to avoid faulty measurements (meter can drain).*

### 2.4.5 Control valve

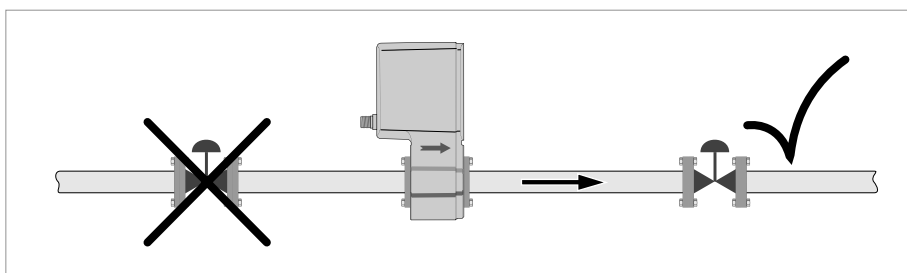


Figure 2-7: Installation before control valve

### 2.4.6 Pump

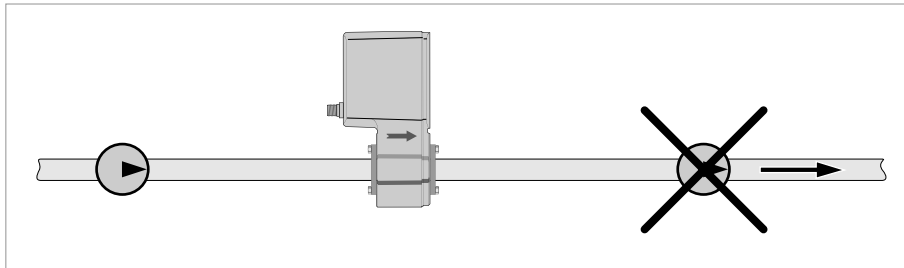


Figure 2-8: Installation after pump

### 2.4.7 Open feed or discharge

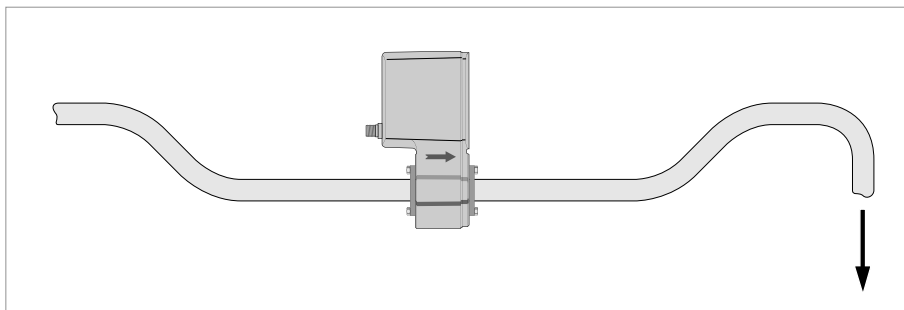


Figure 2-9: Installation before an open discharge

### 2.4.8 Installation location

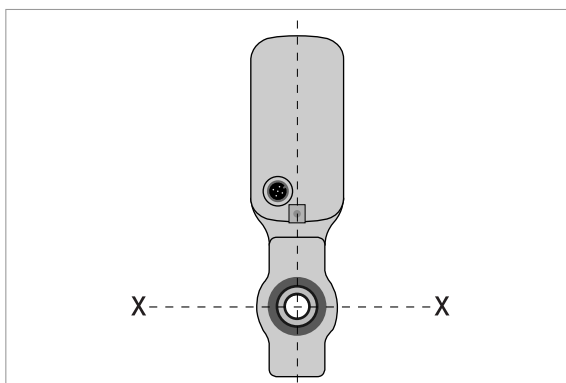


Figure 2-10: Installation location



**CAUTION!**

Mount the flow sensor in such a way that the electrode axis (X-----X) is approximately in a horizontal pipe run.

## 2.4.9 Flange deviation

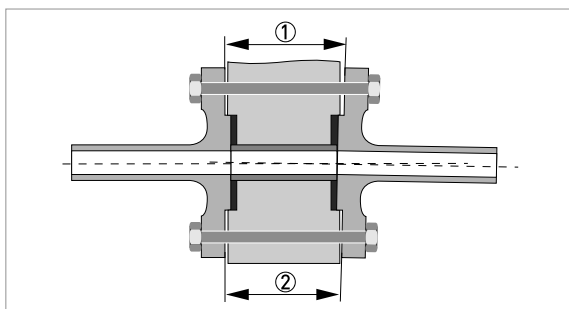


Figure 2-11: Mounting position and flange deviation

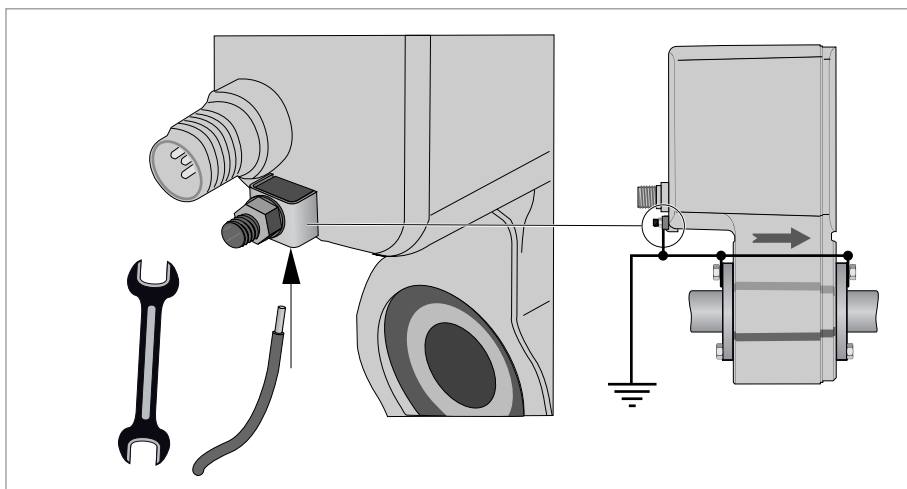
- ①  $L_{max}$   
 ②  $L_{min}$

**CAUTION!**

Max. permissible deviation of pipe flange faces:

$$L_{max} - L_{min} \leq 0.5 \text{ mm} / 0.02''$$

## 2.4.10 Grounding

**CAUTION!**

The grounding wire should not transmit any interference voltage. Therefore do not ground any other electrical device at the same conductor.

**CAUTION!**

When connecting to functional extra-low voltages (24VDC), ensure that you use protective separation (PELV) according to IEC 364/IEC 536 or VDE 0100/VDE 0106.



### 3.1 Safety instructions

**DANGER!**

*All work on the electrical connections may only be carried out with the power disconnected. Take note of the voltage data on the nameplate!*

**DANGER!**

*Observe the national regulations for electrical installations!*

**DANGER!**

*For devices used in hazardous areas, additional safety notes apply; please refer to the Ex documentation.*

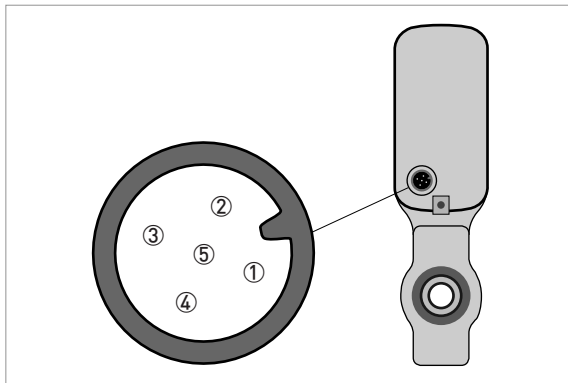
**WARNING!**

*Observe without fail the local occupational health and safety regulations. Any work done on the electrical components of the measuring device may only be carried out by properly trained specialists.*

**INFORMATION!**

*Look at the device nameplate to ensure that the device is delivered according to your order. Check for the correct supply voltage printed on the nameplate.*

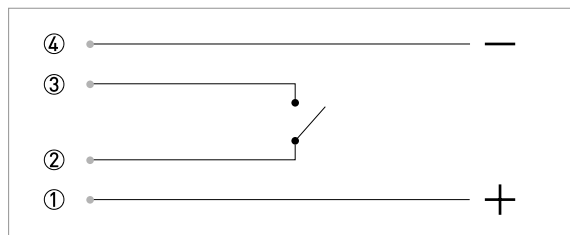
### 3.2 Electrical connection



- ① +24 VDC
- ② Frequency output
- ③ Frequency output (ground)
- ④ Ground
- ⑤ BATCHMon Plus, for service / parameter settings

**CAUTION!**

*Use only a 4 wire cable (Pin 1 to 4)*



**Use one of the following attachment plug types to connect the flowmeter to a third party system:**

- moulded plug, straight or angle-entry form
- integrally extruded plug with cable in various lengths
- moulded plug, straight form, especially suitable for high-interference environments

**Possible vendors of these plugs are:**

- Binder
- Hirschmann
- Lumberg
- Amphenol
- Coninvers

## 4.1 Dimensions and weights

DN2.5...6

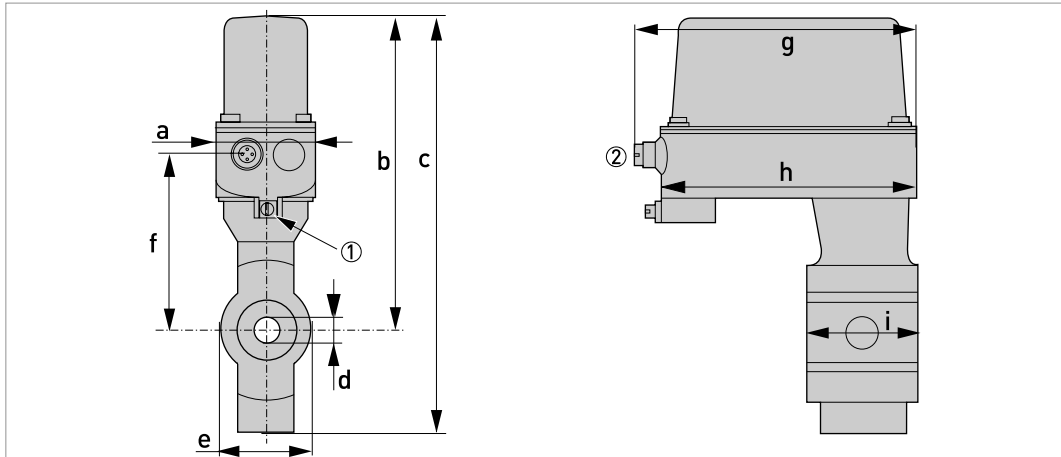


Figure 4-1: Dimensions

① M 5

② 5 pins connector

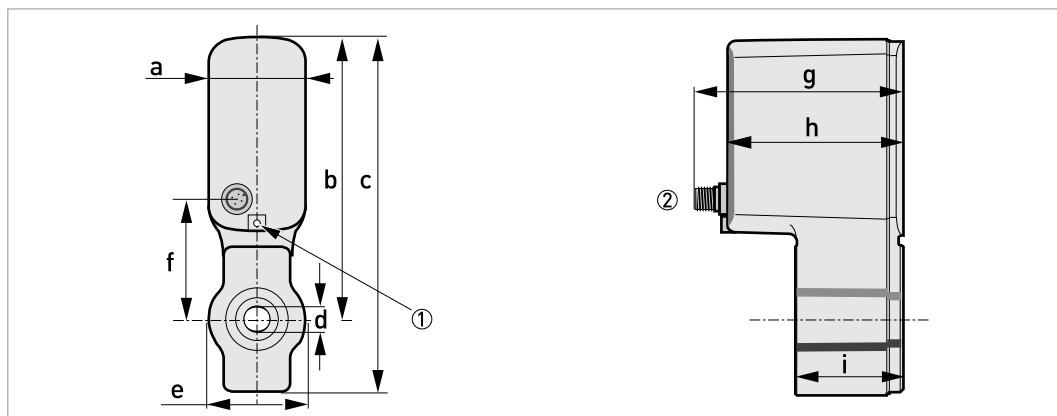
Nominal size	Dimensions [mm]									Weight [kg]
	a	b	c	d	e	f	g	h	i	
DN2.5	50	156	206	6 → 2.5	44	88	141	128	54	1.5
DN4	50	156	206	7 → 3.2	44	88	141	128	54	1.6
DN6	50	156	206	9 → 4.8	44	88	141	128	54	1.6

Note on dimension d: As the diameter reduces to the middle, the diameter is specified for the inlet and for the middle

Nominal size	Dimensions [inches]									Weight [lb]
	a	b	c	d	e	f	g	h	i	
1/10"	1.97	6.14	8.11	0.24 → 0.10	1.73	3.46	5.55	5.0	2.13	3.4
1/6"	1.97	6.14	8.11	0.28 → 0.13	1.73	3.46	5.55	5.0	2.13	3.6
1/4"	1.97	6.14	8.11	0.35 → 0.19	1.73	3.46	5.55	5.0	2.13	3.6

Note on dimension d: As the diameter reduces to the middle, the diameter is specified for the inlet and for the middle

## DN10...15



① M 5

② 5 pins connector

Nominal size	Dimensions [mm]									Weight [kg]
	a	b	c	d	e	f	g	h	i	
DN10	50	140	179	10.5 → 8	45.4	60	106.5	88	54	1.4
DN15	50	140	179	14 → 12	45.4	60	106.5	88	54	1.4

Note on dimension d: As the diameter reduces to the middle, the diameter is specified for the inlet and for the middle

Nominal size	Dimensions [inches]									Weight [lb]
	a	b	c	d	e	f	g	h	i	
3/8"	1.97	5.51	7.05	0.41 → 0.31	1.79	2.36	4.19	3.46	2.13	3.09
1/2"	1.97	5.51	7.05	0.55 → 0.47	1.79	2.36	4.19	3.46	2.13	3.09

Note on dimension d: As the diameter reduces to the middle, the diameter is specified for the inlet and for the middle

## DN25..40

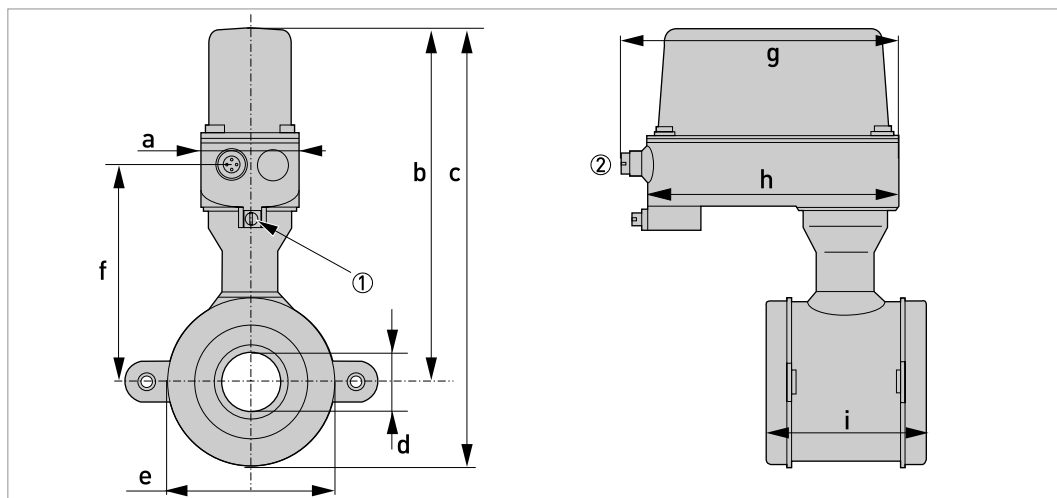


Figure 4-2: Dimensions

① M 5

② 5 pins connector

Nominal size	Dimensions [mm]									Weight [kg]
	a	b	c	d	e	f	g	h	i	
DN25	50	170	204	26 → 20	68	102	141	128	58	1.6
DN40	50	177	219	39 → 30	84	117	141	128	83	2.3

Note on dimension d: As the diameter reduces to the middle, the diameter is specified for the inlet and for the middle

Nominal size	Dimensions [inches]									Weight [lb]
	a	b	c	d	e	f	g	h	i	
1"	1.97	6.69	8.03	1.02 → 0.79	2.68	4.02	5.55	5.04	2.28	3.6
1 1/2"	1.97	6.97	8.62	1.54 → 1.18	3.30	4.61	5.55	5.04	3.27	5.1

Note on dimension d: As the diameter reduces to the middle, the diameter is specified for the inlet and for the middle







### KROHNE product overview

- Electromagnetic flowmeters
- Variable area flowmeters
- Ultrasonic flowmeters
- Mass flowmeters
- Vortex flowmeters
- Flow controllers
- Level meters
- Temperature meters
- Pressure meters
- Analysis products
- Measuring systems for the oil and gas industry
- Measuring systems for sea-going tankers

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