

## The Water FLUXUS<sup>®</sup>

FLUXUS<sup>®</sup> ADM 5107 and ADM 5207 are low-cost ultrasonic flowmeters for permanent installation specially adapted to meet the needs of the water and wastewater industry. They work according to the transit-time principle which makes use of the fact that the speed of propagation of an ultrasonic signal depends on the flow rate of the fluid through which it is propagating.

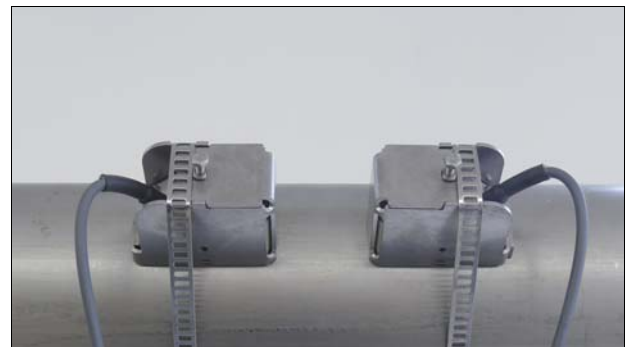
The measurement is completely non-invasive since the clamp-on flow transducers must only be mounted onto the outside of the pipe. No pipe work is needed, no process interruption is necessary. The transducers are small, robust and watertight.

The operation of the flowmeter is easy thanks to the clearly structured menu driven interface. The menus were specially adapted to the needs of the water industry.

Thanks to its exceptional dual microprocessor technology with DSP, high number of measuring cycles per second and adaptive signal processing, FLUXUS ADM 5107 and 5207 produce stable and reliable measuring results even under the most difficult operating conditions.



*FLUXUS<sup>®</sup> ADM 5107*



*M5 flow transducers in transducer shoe, mounted with tension straps*

## Features

- Low-cost flowmeter for permanent installation in the water and wastewater industry
- Single channel or two channels version
- Proven FLUXUS<sup>®</sup> ADM signal processing
- Trouble-free non-intrusive installation without process interruption
- Simple user-friendly programming
- Easy retrofitting on existing installations

## Technical Data

### Measuring

Measuring principle:	transit time difference correlation principle
Flow velocity:	(0.03...82)ft/s
Resolution:	0.0008ft/s
Repeatability:	0.25% of reading $\pm$ 0.03ft/s
Accuracy	(for fully developed, rotationally symmetrical flow profile)
- Volume flow:	$\pm$ 2% of reading $\pm$ 0.03ft/s*
Measurable fluids:	all acoustically conductive fluids with < 10% gaseous or solid content in volume

### Transmitter

Enclosure	
- Weight:	5107: approx. 3.3lb 5207: approx. 3.75lb
- Deg. of protection:	NEMA 4X
- Material:	Aluminum, powder coated
- Dimensions:	5107: (7.09 x 5.51 x 2.79)in (WxHxD) without cable glands 5207: (8.66 x 5.51 x 2.79)in (WxHxD) without cable glands
Flow channels:	5107: 1 5207: 2 (the two transducer pairs must be of the same type)
Power supply:	(100... 240)VAC 24VDC
Display:	2 x 16 characters, dot matrix, backlit
Operating temperature:	14°F... 140°F
Power consumption:	< 10W
Signal damping:	(0...100)s, adjustable
Measuring cycle:	100Hz (1 channel)
Response time:	1s (1 channel)

### Measuring functions

Quantities of measurement:	Volume flow, mass flow, flow velocity
Totalizers:	Volume, mass
Calculation functions:	5207: Average, difference, sum
Operating languages:	English, German, French, Dutch, Spanish

\* under reference conditions and with  $v > 0.25\text{m/s}$

### Outputs

- The outputs are galvanically isolated from the main device.
- The basic instrument 5107 is equipped with 1 current output and 2 binary outputs (Reed relay).
- The basic instrument 5207 is equipped with 2 current output and 2 binary outputs (Reed relay).

#### Current

- Measuring range: (0/4...20)mA
- Accuracy: 0.1% of reading  $\pm$  15 $\mu$ A
- Active output:  $R_{\text{ext}} < 500\text{W}$

#### Binary

- Reed relay: 48V/0.25A
- Function as state output: Limit, sign change or error
- Properties of the pulse output: Value: (0.01... 1 000)units  
Width: (80... 1 000)ms

### Flow transducers (clamp-on)

The transducers must be ordered separately. The transducer type to be used depends on the application.

**Important:** The FLUXUS® ADM 5X07 is only prepared for the corresponding transducer type. It is not possible.

#### Type M5

Rated (possible) diameter range:	(2) 4...98in
Dimensions:	(2.28 x 1.10 x 1.22)in
Material	
- Transducer:	PEEK with stainless steel cap
- Cable jacketing:	PUR
- Transducer shoe:	stainless steel
Deg. of protection:	NEMA 4X
Operating temperature:	Process: -22°F...212°F Ambient: -22°F...212°F

#### Type Q5

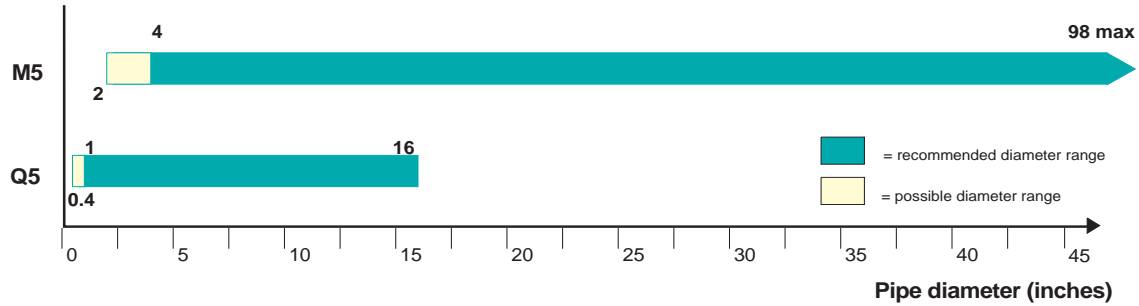
Rated (possible) diameter range:	(0.4) 1...16in
Dimensions:	(1.38 x 0.83 x 0.71)in
Material	
- Transducer:	PEEK with stainless steel cap
- Cable jacketing:	PUR
- Transducer shoe:	stainless steel
Deg. of protection:	NEMA 4X
Operating temperature:	Process: -22°F...212°F Ambient: -22°F...212°F

## Diameter Range of the Flow Transducers

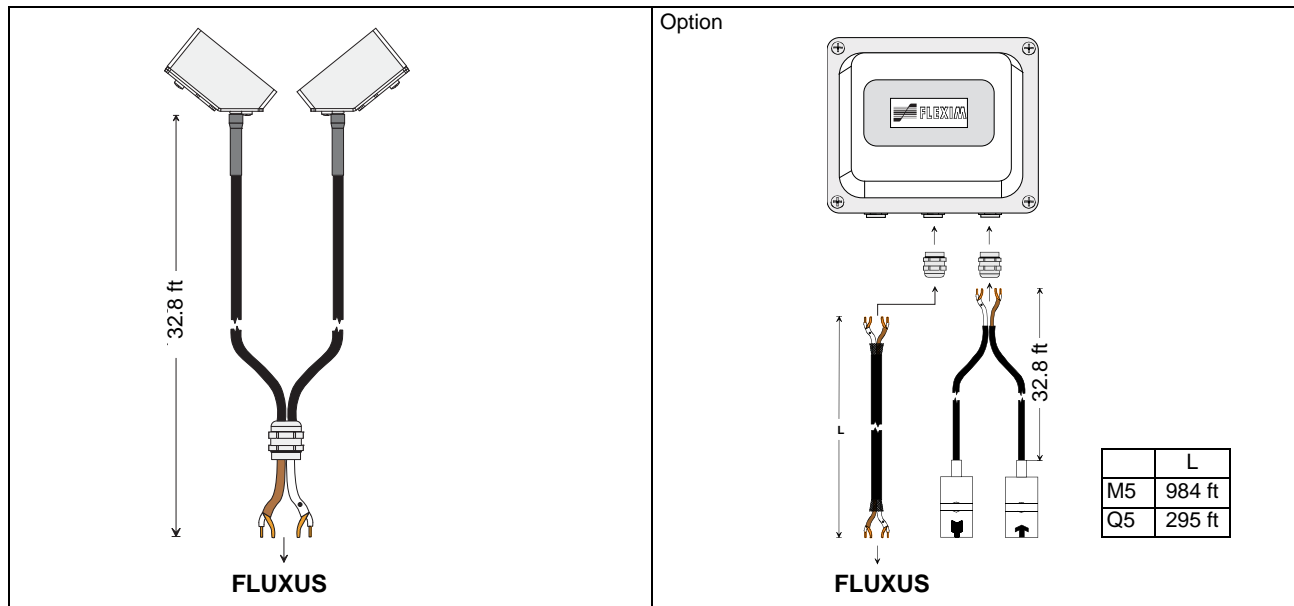
The **recommended diameter range** is the diameter range covered by a transducer under normal measuring conditions (signal damping mainly through fluid, no gas or solid in the fluid).

The **possible diameter range** is the diameter range covered by a transducer under good measuring conditions.

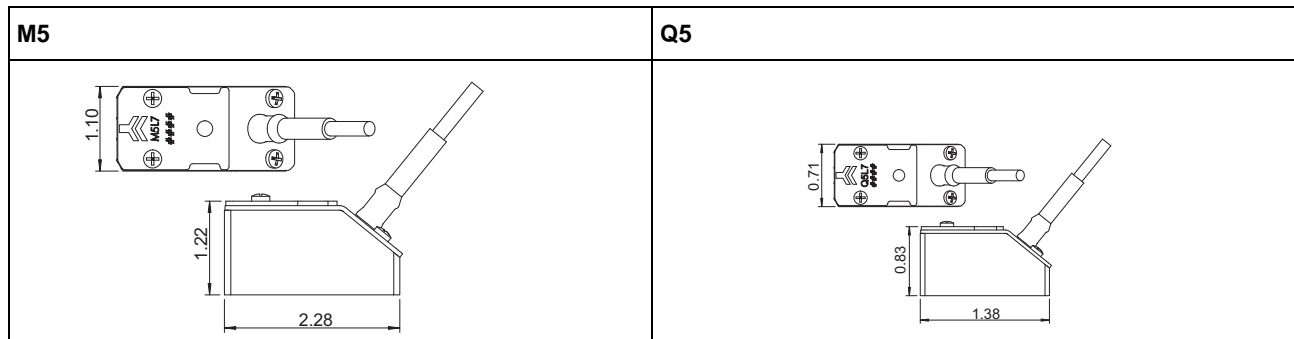
### Transducer type



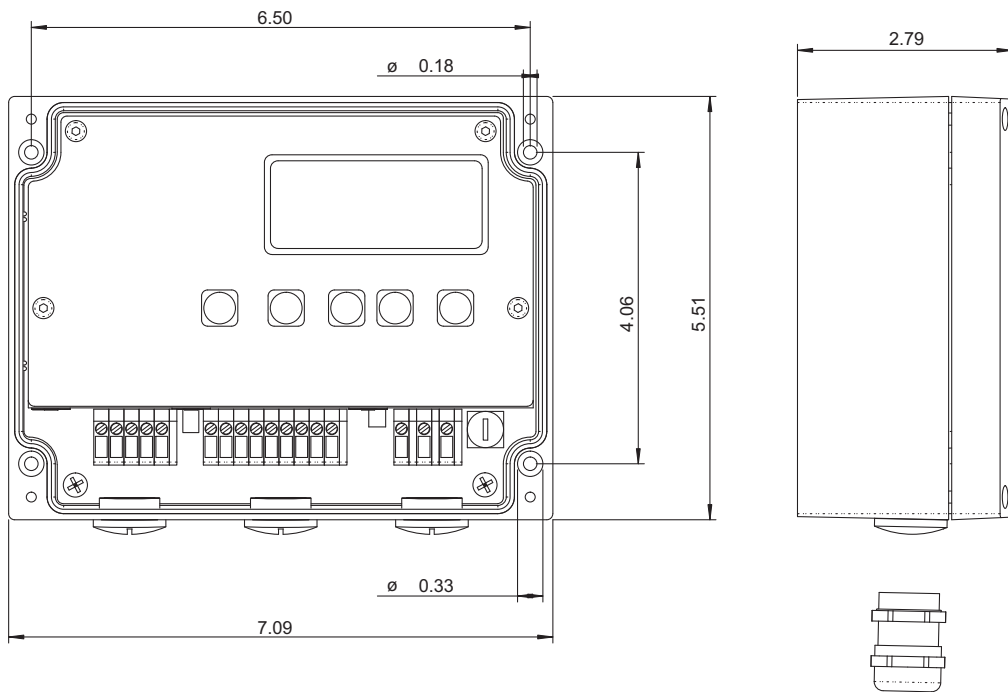
## Connection of the Transducers



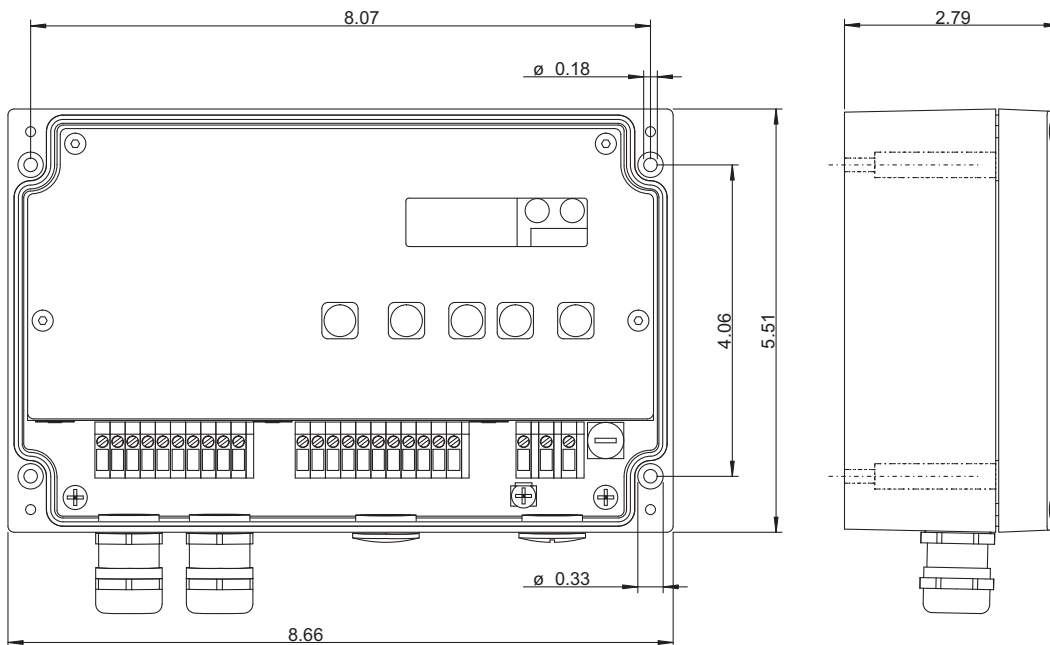
## Dimensions of the Transducers (in inches)



### Dimensions of the Housing of FLUXUS ADM 5107 (inches)



### Dimensions of the Housing of FLUXUS ADM 5207 (inches)



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