FLUXUS® ADM 7X07

The Multitalented

The FLUXUS® ADM 7X07 are ultrasonic flowmeters for permanent installation. FLUXUS® ADM 7407 is designed for wall mounting, FLUXUS® ADM 7907 for installation in 19“ rack systems.

All FLUXUS® flowmeters work according to the transit-time principle which makes use of the fact that the speed of propagation of an ultrasonic signal in a flowing medium depends on the flow velocity.

Since the transducers are mounted on the pipe, they are not subject to wear and tear and can be installed rapidly, without cutting into the pipe and without process interruption. The measurement causes no pressure loss. Chemically aggressive media are not a problem; there is no need for expensive materials.

Thanks to their exceptional dual-uP technology, high number of measuring cycles per second and adaptive signal processing, the FLUXUS® ADM 7X07 meters produce stable and reliable measuring results even under difficult conditions.

FLUXUS® ADM 7X07 can be equipped with up to 4 process inputs. The input quantities (e.g. temperature or pressure) can be used by FLUXUS together with the measured flow for the calculation of further quantities: heat flow, mass flow, etc.

All FLEXIM flow transducers for liquids can be connected. Clamp-on flow measurement of liquids is possible on pipes with diameter ranging from DN 6 to DN 6500 and at temperatures ranging from -30 °C to 400 °C. The transducers have a degree of protection of IP65 (IP68 on request). Explosion protected types (FM or ATEX) are available. You will find more information about the transducers in the corresponding specification sheet.

FLUXUS® ADM 7407

FLUXUS® ADM 7907

Features

- Non-invasive flow measurement for permanent installation
- 1 or 2 flow channels
- Unique signal processing
- Flexible configuration of inputs and outputs
- Enhanced status information
- Integrated energy calculator and flow calculator

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Technical Data

Measurement

Measuring principle:	transit time difference correlation principle
Flow velocity:	(0.01 to 25) m/s
Repeatability:	0.15% of reading ± 0.01 m/s
Accuracy*	
- with 7 points wet flow calibration:	± 1.2% of reading ± 0.01 m/s
- with process calibration**:	± 0.5% of reading ± 0.01 m/s
Measurable fluids:	all acoustically conductive fluids with < 10% gaseous or solid content in volume

Transmitter

Housing	
- Weight:	7407: ca. 2.8 kg, 7907: ca. 1.7 kg
- Deg. of protection acc. to EN60529:	7407: IP65 7907: IP20
- Material:	Aluminium, powder coated
- Dimensions (WxHxD):	7407: (287 x 200 x 70) mm 7907: (42TEx3HE) (without back panel)
Flow channels:	1 or 2
Power supply:	(100 to 240) VAC (18 to 36) VDC
Display:	2 x 16 characters, dot matrix, backlit
Operating temperature:	-10 °C to 60 °C
Power consumption:	< 15 W
Signal damping:	(0 to 100) s, adjustable
Measuring cycle:	(100 to 1000) Hz (1 channel)
Response time:	1 s (1 channel), 70 ms opt.

Measuring functions

Quantities of measurement:	Volume and mass flow rate, flow velocity, heat flow rate (only if temperature inputs are installed)
Totalizers:	Volume, mass, heat (opt.)
Calculation functions:	Average, difference, sum
Operating languages:	Dutch, English, French, German, Spanish

Data logger

Loggable values:	All measured quantities and totalized values
Capacity:	>100000 meas. values

Communication

Interface:	RS232, RS485 optional
Data:	actual meas. value, logged data, parameter records

Software FluxData (optional)

Function:	Downloading meas. data/parameter records, graphical presentation, conversion to other formats
Operating systems:	All Windows™ versions

Outputs (optional)

- The outputs are galvanically isolated from the main device.
- The number of outputs that can be installed depends on the output type. Consult FLEXIM for more information.

Current		
- Range:	(0/4 to20) mA	
- Accuracy:	0.1% of reading ± 15 µA	
- Active output:	R_{ext} < 500 Ω	
- Passive output:	U_{ext} < 24 V, R_{ext} < 1 kΩ	
Voltage		
- Range:	(0 to 1) V or (0 to 10) V	
- Accuracy:	(0 to 1) V: 0,1% of reading ± 1 mV (0 to 10) V: 0.1% of reading ± 10 mV	
- Intr. resistance:	R_i = 500 Ω	
Frequency		
- Range:	(0…1) kHz or (0…10) kHz	
- Open collector:	24 V/4 mA	
Binary		
- Open collector:	24 V/4 mA	
- Reed relais:	48 V/0.1 A	
- Function as state output:	limit, sign change or error	
- Properties of the pulse output (OC):	Value: (0.01 to1000) units Width: 7407: (1 to 1000) ms 7907: (80 to 1000) ms	

Inputs (optional)

- The inputs are galvanically isolated from the main device.
- A maximum of 4 inputs can be installed.

Temperature	
- Type:	Pt100 four-wire circuit
- Range:	-50 °C to 400 °C
- Resolution:	0.1 K
- Accuracy:	± (0.2 K + 0.1% of reading)
Current	
- Range:	active: (0 to 20) mA passive: (-20 to 20) mA
- Accuracy:	0.1% of reading ± 10 µA
- Active input:	R_i = 50 Ω
- Passive input:	U_{ext} < 24 V, R_{ext} < 1 kΩ
Voltage	
- Range:	(0 to 1) V or (0 to 10) V
- Accuracy:	(0 to 1) V: 0.1% of reading ± 1 mV (0 to 10) V: 0.1% of reading ± 10 mV
- Intr. resistance:	R_i= 1 MΩ

* under reference conditions and with v>0.15 m/s
** if reference uncertainty better than 0.2%

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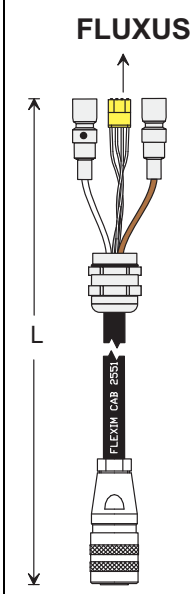
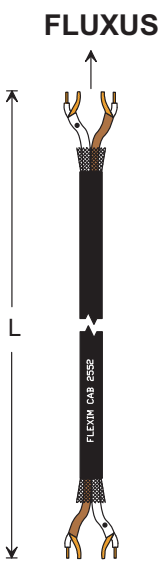
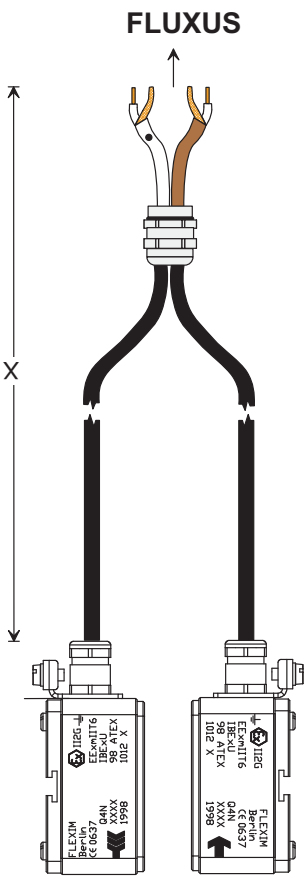
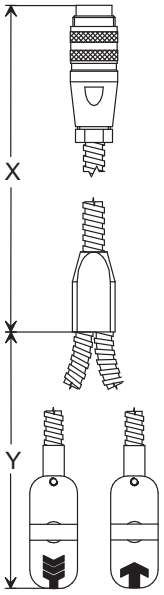
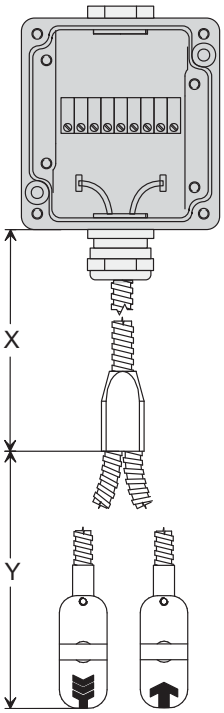
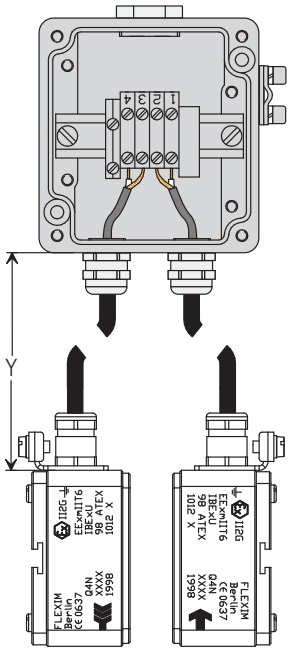
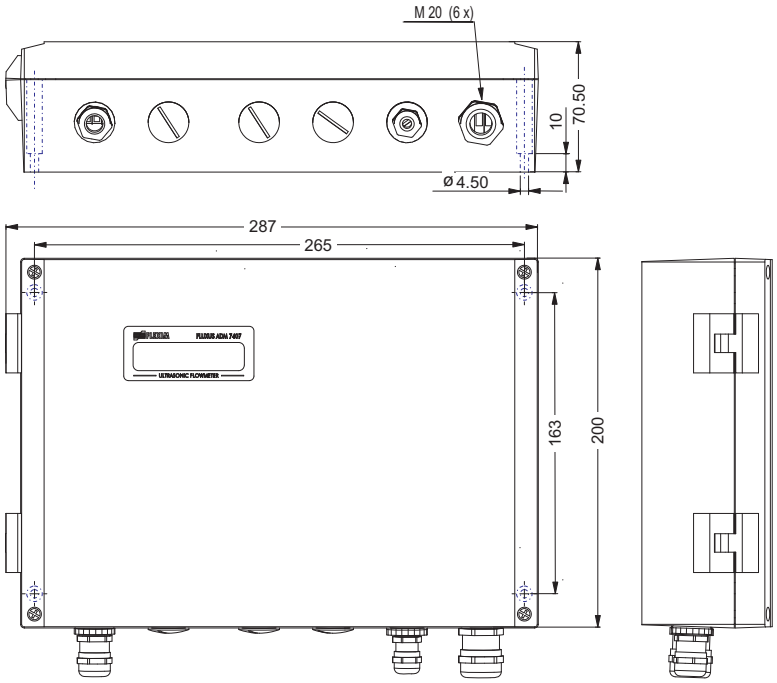
Connection Types

	AS	JT	JT with Ex transducers	NT
Connection cable				
Transducer cable				

Dimensions of the Housing (in mm)

FLUXUS ADM 7407



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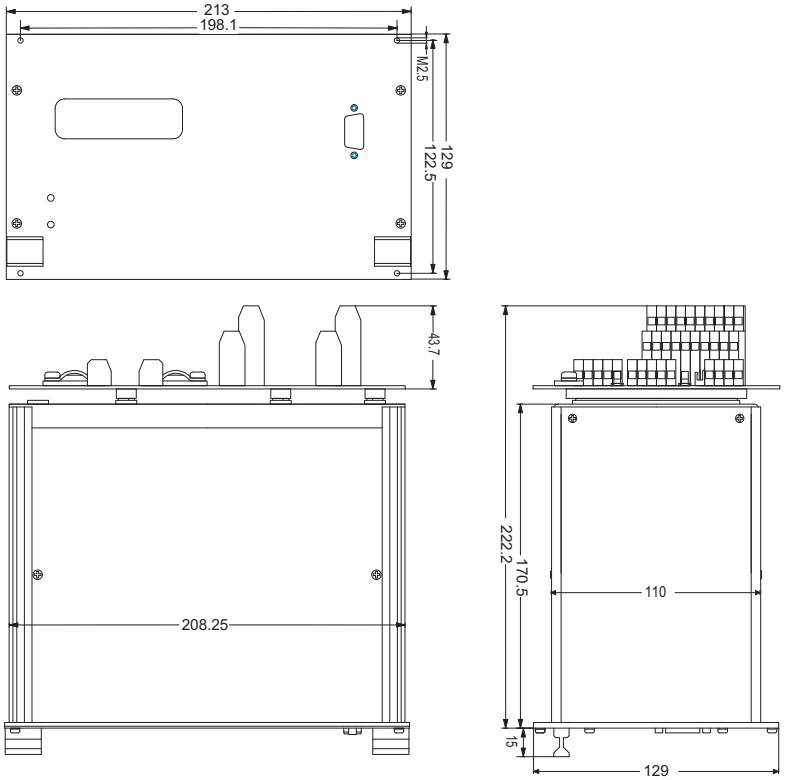

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