

ADM 7907	COMMESSA	REVISIONE
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Ultrasonic flow-meter

FLUXUS ADM 7907



formato
A4
portr.

dimens.
210x297

mod.
FA4D00

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ADM 7907

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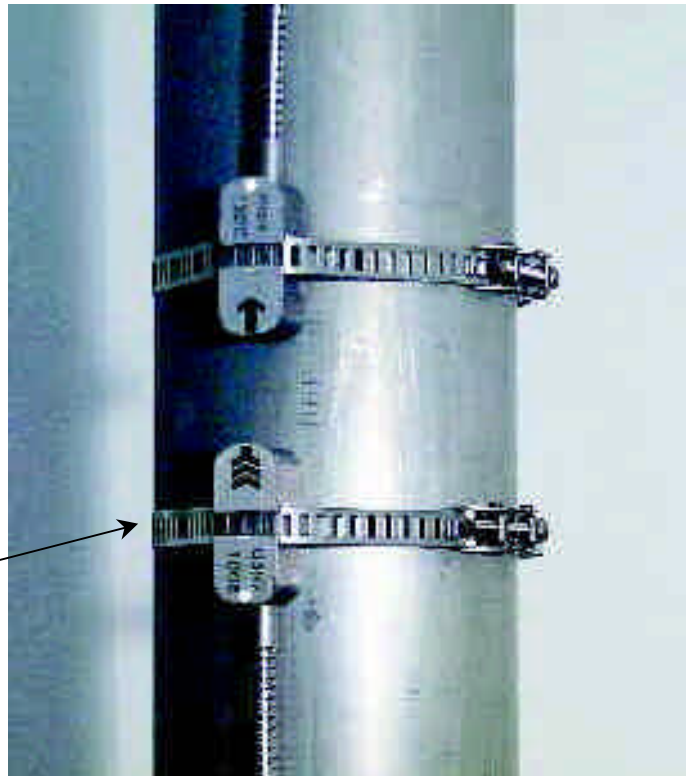
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The Ultrasonic flowmeter of the series FLUXUS® ADM 7907 determines the flow rate of liquid media in closed pipes. The FLUXUS® ADM 7907 unit is designed for fixed installation in 19" rack systems.

The measurement of flow is based on the principle that sound waves are influenced by the flowing medium. Measurements are made by penetrating the pipe with ultrasound and subsequently time differences, frequency variations or phase shifts of the ultrasonic signals are evaluated.

This measuring technique has no effect on the flowing liquid. There is no pressure loss in the pipe and no wear on components of the measuring device.



Typical application of the sensor ADM7907 on a pipe with the special fastening belt

Features:

- Low installation effort and costs
- Measurement is independent of fluid conductivity and pressure
- No pressure loss, no possibility of leakage
- Retrospective installation for existing plants possible
- No cutting of pipes necessary, no interruption of process, no plant shut down
- No additional fittings for maintenance required
- Hygienic measurement, no risk of contamination, suitable for ultra-clean liquids
- No contact with medium, no risk of corrosion when used with aggressive media
- Cost advantages when used with large diameter pipes, high pressure systems, etc.
- Low stocking costs, nearly all pipe sizes are covered with only 2 types of sensors
- Usage with Ex. approved sensors type Q4N Ex/ M4N Ex in hazardous area
- Space saving installation 19" rack-systems

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Technical data:

Measuring principle TM	Ultrasonic time difference correlation principle and NoiseTrek
Flow velocity range	0.01 ... 25 m/s
Resolution	0.025 cm/s
Repeatability	0.15 % of measured value \pm 0.015 m/s
Accuracy	Volume flow: \pm 1 ... 3 % of measured value depending on application \pm 0.5 % of measured value with process calibration Flow velocity: \pm 0.5 % of measured value
Gaseous and solid content	< 10 % of volume

Transmitter:

Enclosure, degree of protection	19" block 42TE / 3HE IP20/ front panel assembled with gasket IP54 acc. EN60529
Ambient temperature	-10 ... 60 °C
Housing material	Aluminium
Flow channels	1 ..2
Power supply	100 ..240 VAC/ 9 ..18 VDC/ 18 ..36VDC / 36 ..72 VDC
Display	2 x 16 characters, dot matrix, back light

Dimensions	W x H x D: mm 213 x 129 x 170 (without Backpanel) 42 TE x 3 HE
Power consumption	< 15 W
Signal damping	0 ... 60 s, user configurable
Response time	1 s, optional 70 ms
Measuring cycle	100 ... 1000 Hz, single channel
Calculation functions	Average/difference/sum
Operating languages	Selectable between Danish, English, German, French, Dutch, Norwegian, Polish, Czech, Turkish

Quantities of measurement	Volume flow, flow velocity, mass flow, temperature, heat quantity, heat flow
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Internal data logger	27,000 values, optional >100,000 values Logging data All measured and totalized values
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Communication	RS232 Data Instantaneous measured value, parameter set and configuration, logged data
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Software	FluxData Functionality Downloading of measured values/parameter set, graphical presentation, list export to third party software, on-line data. Operating systems Windows
format, transfer of measured TM 3.11, 95, 98, NT	

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Process inputs

- Temperature
- Current
- Voltage

Galvanically isolated from main electronics
PT 100, four-wire circuit, measuring range:- 50 ... 400 °C
0 ... 20 mA; Ri = 50 W
0 ... 1 V; Ri = 1 MW

Process outputs

- Current
- Voltage
- Frequency
- Digital

Galvanically isolated from main electronics
0/4 ... 20 mA; passive (Uext < 24 V) or active (Rext < 500 W)
0 ... 1 V or 0 ... 10 V, Ri = 500 W
0 ... 1 kHz or 0 ... 10 kHz; (OC)
(pulse, status) 0.01 ... 1000 /unit;
width: 80 ... 1000 ms; (OC/Reed)
Reed = Reed-NO contact (300 V / 0.5 A)
OC = Open-Collector

Clamp-on flow sensors**Type**

Rated (possible)
Dimensions
Material
Temperature range

M2N, M2E

diameter range (50) 100 ... 6500 mm
30 x 33 x 60 mm
Stainless steel
M2N: -30 ... 130 °C M2E: -30 ... 200 °C,
for short periods up to 300 °C
IP65 acc. EN60529, IP67 optional

Degree of protection

Type

Rated (possible)
Dimensions
Material
Temperature range

Q3N, Q3E

diameter range (10) 25 ... 400 (1000) mm
16 x 18 x 33 mm
Stainless steel
Q3N: -30 ... 130 °C Q3E: -30 ... 200 °C,
for short periods up to 300 °C
IP65 acc. EN60529, IP67 optional

Degree of protection

Type

Rated (possible)
diameter range
Dimensions
Material
Temperature range
Degree of protection
Kind of Protection:
Marking:

Q4N Ex, M4N Ex

Q4N Ex
DN(10) 25 ... 400 (1000) M4N Ex DN (50) 100 ...3000
30 x 33 x 60 mm
Stainless steel
-20 °C ... 120 °C
IP65 acc. EN60529, IP67 optional
potted
EEX m II T4 to T6

The sensors are designed for use in hazardous area Ex-Zone 1 & 2 . The transmitter has to be located outside the hazardous area in the safe area. Please consider local rules for the use of equipment in hazardous area and the necessary approvals.

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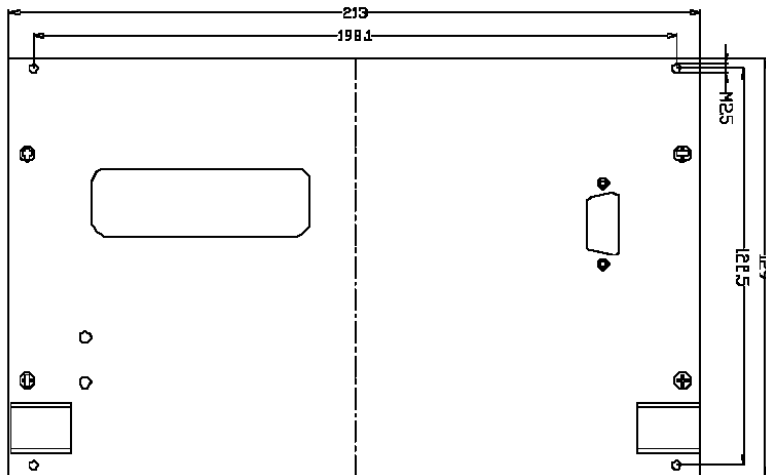
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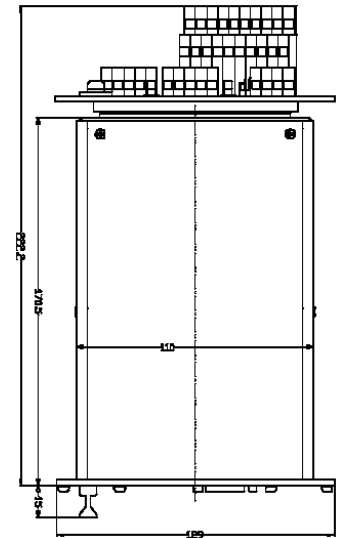
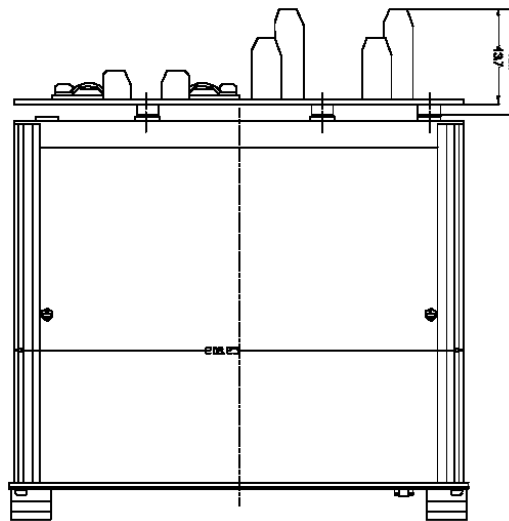
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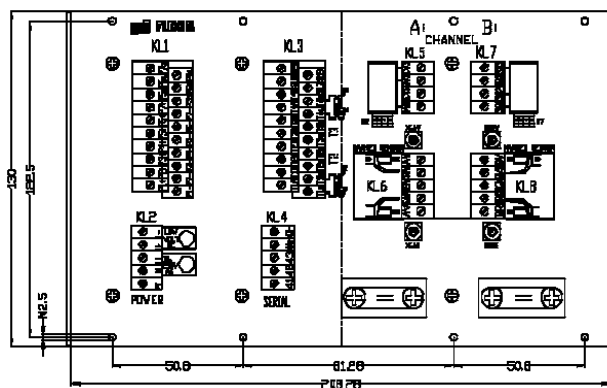
Dimensions Housing FLUXUS ADM 7907



Transmitter



Backplane:



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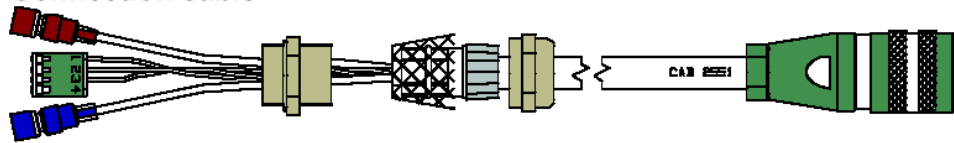
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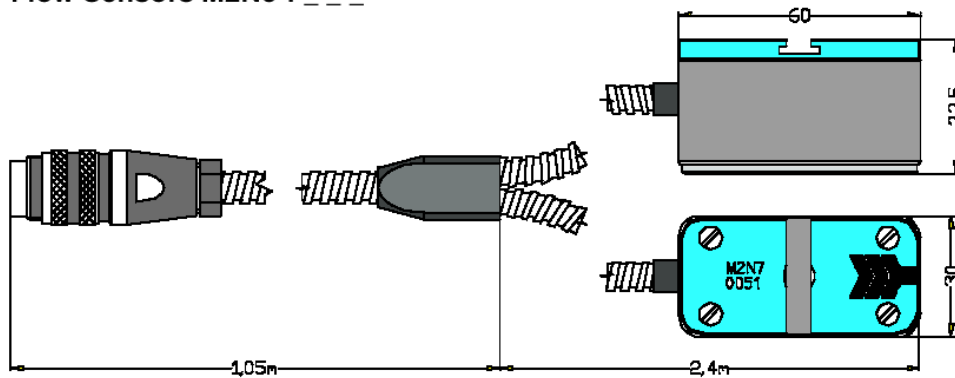
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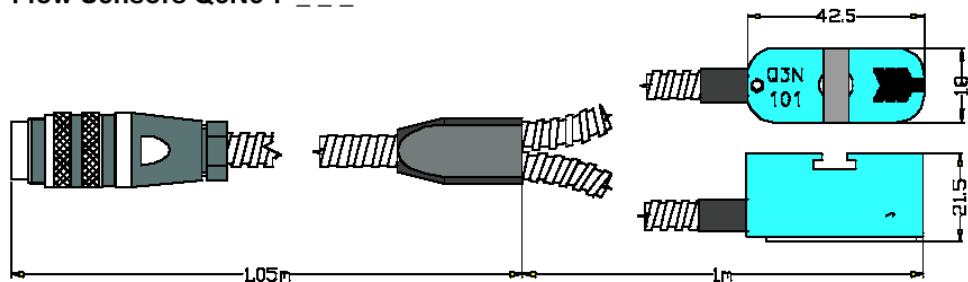
Connection cable



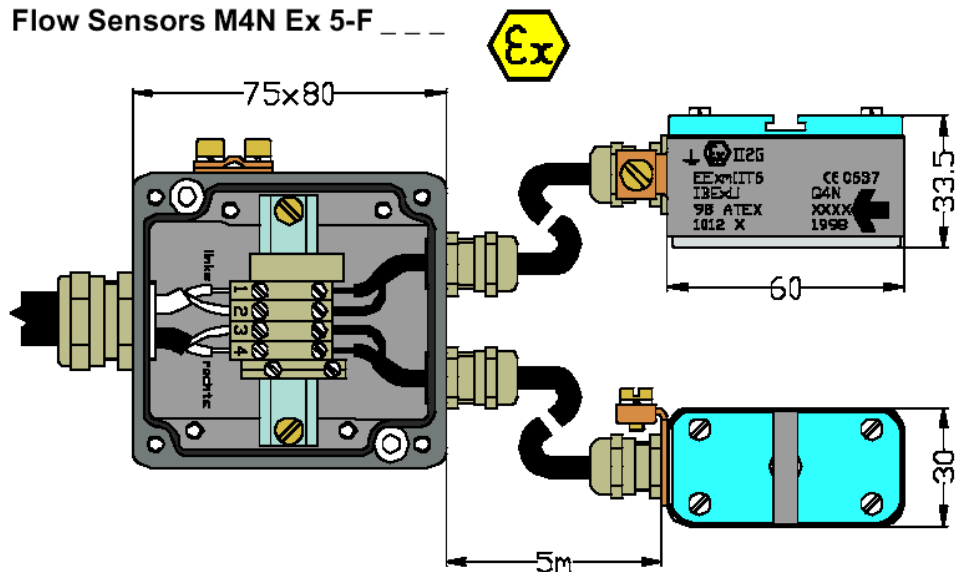
Flow Sensors M2N5-F



Flow Sensors Q3N5-F



Flow Sensors M4N Ex 5-F



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