


## Flow transmitter FLUXUS F704SR

### Technical data

<b>FLUXUS</b>	<b>F704SR-NN F704SR-A2</b>
design	standard field device SIL2
	
<b>measurement</b>	
measurement principle	transit time difference correlation principle, automatic NoiseTrek selection for measurements with high gaseous or solid content
flow velocity	0.01...25 m/s
repeatability	0.15 % of reading $\pm$ 0.01 m/s
fluid	all acoustically conductive liquids with < 10 % gaseous or solid content in volume (transit time difference principle)
temperature compensation	corresponding to the recommendations in ANSI/ASME MFC-5.1-2011
<b>accuracy<sup>1</sup></b>	
with standard calibration	$\pm$ 1.6 % of reading $\pm$ 0.01 m/s
with advanced calibration (optional)	$\pm$ 1.2 % of reading $\pm$ 0.01 m/s
with field calibration <sup>2</sup>	$\pm$ 0.5 % of reading $\pm$ 0.01 m/s
<b>flow transmitter</b>	
power supply	100...230 V/50...60 Hz
power consumption	< 15 W
number of flow measuring channels	1, optional: 2
damping	0...100 s, adjustable
measuring cycle (1 channel)	100...1000 Hz
response time	1 s (1 channel), option: 70 ms
housing material	aluminum, powder coated
degree of protection according to IEC/EN 60529	IP65
weight	3.1 kg
fixation	wall mounting, optional: 2" pipe mounting
ambient temperature	-20...+60 °C
display	2 x 16 characters, dot matrix, backlight
menu language	English, German, French, Dutch, Spanish
<b>explosion protection</b>	
transmitter	F704SR-A2
A zone	2
T marking	CE 0637 (E) II3G II2D
X / I	Ex nA nC ic IIC T4 Gc Ex tb IIIC T 120 °C Db T <sub>a</sub> -40...+60 °C
E certification ATEX	IBExU11ATEX1015
C certification IECEx	IECEX IBE 11.0008
E type of protection	gas: non sparking dust: protection by enclosure
x intrinsic safety parameters	U <sub>m</sub> = 250 V

<sup>1</sup> for transit time difference principle, reference conditions and  $v > 0.15$  m/s

<sup>2</sup> reference uncertainty < 0.2 %

<b>FLUXUS</b>	<b>F704SR-NN</b> <b>F704SR-A2</b>
<b>measuring functions</b>	
physical quantities	volumetric flow rate, mass flow rate, flow velocity
totalizer	volume, mass
calculation functions	average, difference, sum (2 measuring channels necessary)
diagnostic functions	sound speed, signal amplitude, SNR, SCNR, standard deviation of amplitudes and transit times
<b>communication interfaces</b>	
diagnostic interfaces	- RS232 <sup>3</sup> - USB (with adapter) <sup>3</sup>
<b>serial data kit (optional)</b>	
software	- FluxDiagReader: download of measured values and parameters, graphical presentation - FluxDiag (optional): download of measurement data, graphical presentation, report generation - FluxSubstanceLoader: upload of fluid data sets
cable	RS232 <sup>3</sup>
adapter	RS232 - USB <sup>3</sup>
<b>data logger</b>	
loggable values	all physical quantities, totalized values and diagnostic values
capacity	> 100 000 measured values
<b>outputs</b>	
The outputs are galvanically isolated from the transmitter.	
<b>current output</b>	
number	2 (1 (SIL 2), 1 (diagnosis)), optional: 3...4 (1 (SIL 2), 2...3 (diagnosis))
- range	0/4...20 mA
- accuracy	0.1 % of reading $\pm 15 \mu\text{A}$
- active output	$R_{\text{ext}} < 500 \Omega$
<b>binary output (optional)</b>	
number	1...3 (diagnosis)
optorelay	26 V/100 mA
binary output as alarm output	
- functions	limit, change of flow direction or error
binary output as pulse output	mainly for totalizing
- pulse value	0.01...1000 units
- pulse width	1...1000 ms

<sup>3</sup> F704SR-A2: connection of the interface RS232 outside of explosive atmosphere (housing cover open)



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