



Flow transmitter FLUXUS G704SR

Technical data

FLUXUS	G704SR-NN G704SR-A2
design	standard field device SIL2
	
measurement	
measurement principle	transit time difference correlation principle
flow velocity	0.01...35 m/s, depending on pipe diameter
repeatability	0.15 % of reading ± 0.01 m/s
fluid	all acoustically conductive gases, e.g. nitrogen, air, oxygen, hydrogen, argon, helium, ethylene, propane
temperature compensation	corresponding to the recommendations in ANSI/ASME MFC-5.1-2011
accuracy	
volumetric flow rate	$\pm 1...3$ % of reading ± 0.01 m/s depending on application ± 0.5 % of reading ± 0.01 m/s with field calibration
flow transmitter	
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
explosion protection	
transmitter	G704SR-A2
A zone	2
T marking	CE 0637  II3G II2D
X	Ex nA nC ic IIC T4 Gc Ex tb IIIC T 120 °C Db
/	T _a -40...+60 °C
I	IBExU11ATEX1015
E certification ATEX	IECEX IBE 11.0008
C certification IECEx	gas: non sparking dust: protection by enclosure
E type of protection	
x	intrinsic safety parameters U _m = 250 V

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measuring functions	
physical quantities	operating volumetric flow rate, standard 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
communication interfaces	
diagnostic interfaces	- RS232 ¹ - USB (with adapter) ¹
serial data kit (optional)	
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 ¹
adapter	RS232 - USB ¹
data logger	
loggable values	all physical quantities, totalized values and diagnostic values
capacity	> 100 000 measured values
outputs	
The outputs are galvanically isolated from the transmitter.	
current output	
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	$R_{\text{ext}} < 500 \Omega$
binary output (optional)	
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

¹ G704SR-A2: connection of the interface RS232 outside of explosive atmosphere (housing cover open)

