Flow Transmitter FLUXUS G706

Technical Data

FLUXUS	**G706**
design	field device with 4 measuring channels in stainless steel housing
	
measurement	
measurement principle	transit time difference correlation principle
flow velocity	0.03 to 115 ft/s, depending on pipe diameter
repeatability	0.15 % of reading ±0.03 ft/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
volumetric flow rate	± 1 to 3 % of reading ±0.03 ft/s depending on application ± 0.5 % of reading ±0.03 ft/s with field calibration
flow transmitter	
power supply	100 to 230 V/50 to 60 Hz or 20 to 32 V DC
power consumption	< 20 W
number of flow measuring channels	4
damping	0 to 100 s, adjustable
measuring cycle (1 channel)	100 to 1000 Hz
response time	1 s (1 channel)
housing material	stainless steel 316L
degree of protection	IP20
dimensions	see dimensional drawing
weight	14.8 lb
fixation	wall mounting, optional: 2 " pipe mounting
ambient temperature	-4 to +131 °F
display	2 x 16 characters, dot matrix, backlight
menu language	English, German, French, Dutch, Spanish
explosion protection (optional)	
F M marking	NI/Cl. I / Div. 2 / GP. A,B,C,D / T4 Ta: -20...+55 °C
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
diagnostic functions	sound speed, signal amplitude, SNR, SCNR, standard deviation of amplitudes and transit times

FLUXUS	**G706**
data logger	
loggable values	all physical quantities, totalized values and diagnostic values
capacity	> 100 000 measured values
SD card, removable (optional, nonEx)	
loggable values	all physical quantities and totalized values
capacity	min. 2 GB
communication	
interface	- process integration (optional): RS485 (sender) or Modbus RTU or HART or SD card - diagnosis: RS232
serial data kit (optional)	
software (all Windows™ versions)	- FluxData: download of measurement data, graphical presentation, conversion to other formats (e.g. for Excel™) - FluxDiag (optional): online diagnostics and report generation - FluxSubstanceLoader: upload of fluid data sets
cable	RS232
adapter	RS232 - USB
outputs (optional)	
	The outputs are galvanically isolated from the transmitter.
number	on request active inputs and outputs: max. 4
	switchable current output (nonEx)
	All switchable current outputs are switched to active or passive mode at the same time.
- range	4 to 20 mA (3.2 to 22 mA)
- accuracy	0.04 % of reading ±3 µA
- active output	R_{ext} < 350 Ω
- passive output	U_{ext} = 8 to 30 V, depending on R_{ext}, R_{ext} < 1 kΩ
	current output
current output	
- range	0/4 to 20 mA
- accuracy	0.1 % of reading ±15 µA
- active output	R_{ext} < 500 Ω
- passive output	U_{ext} = 4 to 24 V, depending on R_{ext}, R_{ext} < 1 kΩ
current output I1 in HART mode	
- range	4 to 20 mA
- passive output	U_{ext} = 10 to 24 V
	voltage output
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
internal resistance	R_{int} = 500 Ω
	frequency output
range	0 to 5 kHz
open collector	24 V/4 mA, R_{int} = 66.5 Ω
	binary output
Reed relay	48 V/100 mA, P1 to P6: R_{int} = 22 Ω
open collector	24 V/4 mA, P1 to P6: R_{int} = 22 Ω
optorelay	26 V/100 mA
binary output as alarm output	
- functions	limit, change of flow direction or error
binary output as pulse output	
- pulse value	0.01 to 1000 units
- pulse width	optorelay: 1 to 1000 ms Reed relay, open collector: 80 to 1000 ms

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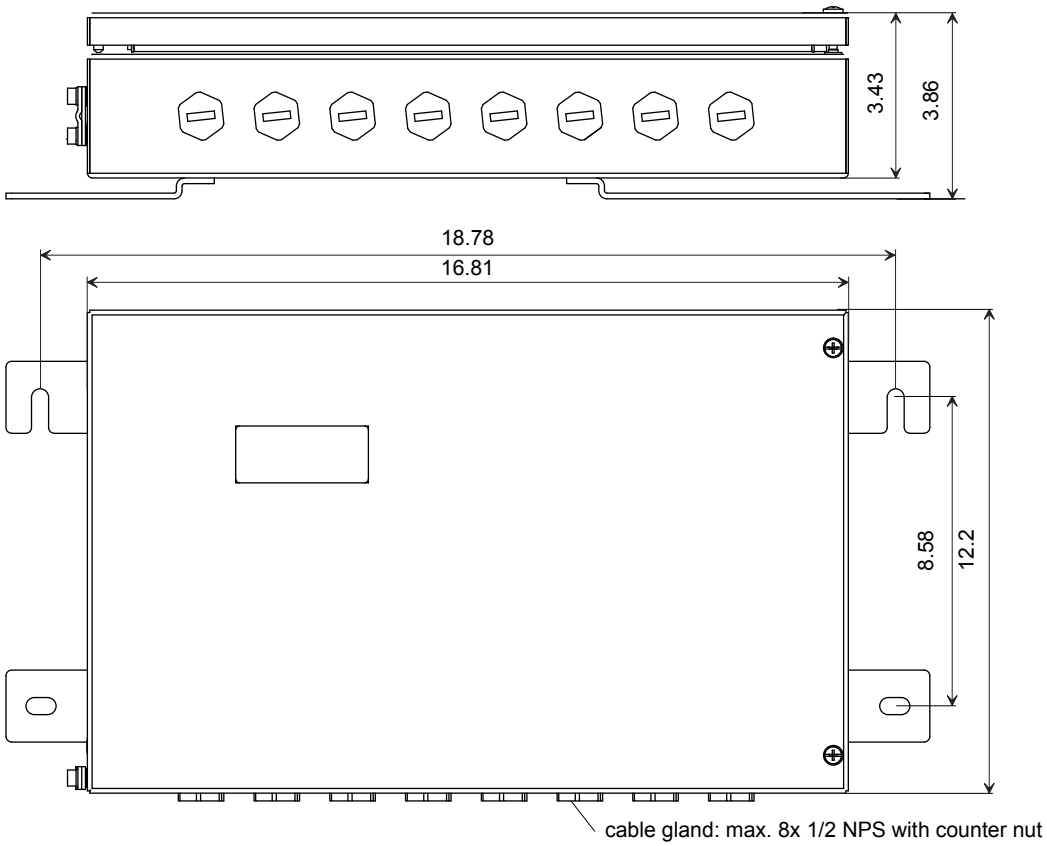
inputs (optional)	
	The inputs are galvanically isolated from the transmitter.
number	max. 4, on request active inputs and outputs: max. 4
	temperature input
type	Pt100/Pt1000
connection	4-wire
range	-238 to +1040 °F
resolution	0.01 K
accuracy	±0.01 % of reading ±0.03 K
	current input
accuracy	0.1 % of reading ±10 µA
active input	U_{int} = 24 V, R_{int} = 50 Ω, P_{int} < 0.5 W, not short-circuit proof
- range	0 to 20 mA
passive input	R_{int} = 50 Ω, P_{int} < 0.3 W
- range	-20 to +20 mA
	voltage input
range	0 to 1 V
accuracy	0.1 % of reading ±1 mV
internal resistance	R_{int} = 1 MΩ
	binary input
switching signal	5 to 30 V, 1 mA FM class I, Div. 2: 5 to 26 V, 1 mA
functions	- resetting the measured values - resetting the totalizers - stopping the totalizers - activation of the measuring mode for highly dynamic flows

Dimensions

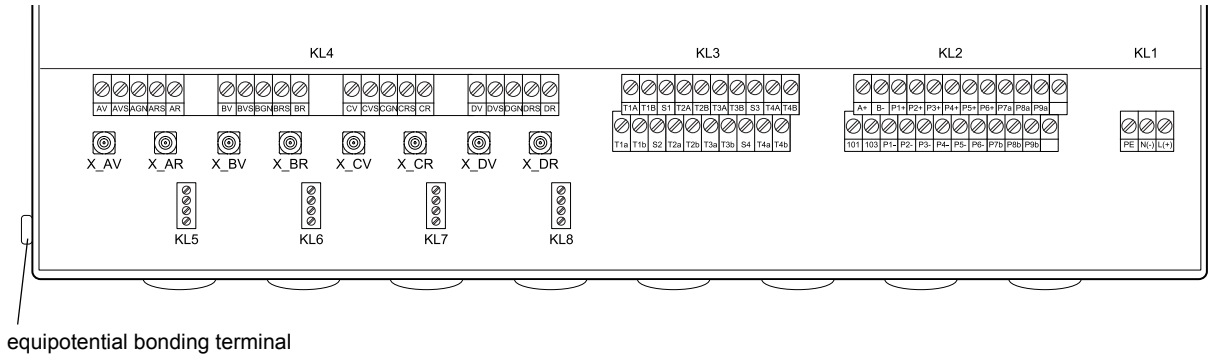
FLUXUS G706



in inch

Terminal Assignment

FLUXUS G706



power supply

terminal strip KL1

terminal	connection (AC)	connection (DC)
PE	earth	earth
N(-)	neutral	-
L(+)	phase	+

transducers

terminal strip KL4

extension cable (transducers *****8*, ****LI*, *****52) **transducer cable** (transducers *****8*, ****LI*)	
measuring channel A, B, C, D	
terminal	**connection**
xV	signal
xVS	shield
xRS	shield
xR	signal

transducer cable (transducers *****52)	
measuring channel A, B, C, D	
terminal	**connection**
X_xV	SMB connector
X_xR	SMB connector

outputs[1]

terminal strip KL2

terminal	connection
P1+ to P6+, P1- to P6-	current output, voltage output, frequency output or binary output (Reed relay, open collector)
P7a to P9a, P7b to P9b	binary output

RS485, Modbus, BACnet (optional)

terminal strip KL2

terminal	connection
A+	signal +
B-	signal -
101	shield

analog inputs[1]

terminal strip KL3

terminal	temperature probe				passive current source	active current source
	with connector		without connector		connection of an active input	connection of a passive input
	direct connection	connection with extension cable	direct connection	connection with extension cable		
T1a to T4a	red	red	red	white	not connected	not connected
T1A to T4A	red/blue	gray	red	black	-	+
T1b to T4b	white/blue	blue	white	red	+	not connected
T1B to T4B	white	white	white	green	not connected	-
S1 to S4	shield	shield	-	-	not connected	not connected

binary inputs[1]

terminal strip KL2

terminal
P1+ to P2+, P1- to P2-

[1] The number, type and terminal assignment of the outputs and inputs will be customized.

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