



Application Low Flow

Flow Transmitter

Technical Data

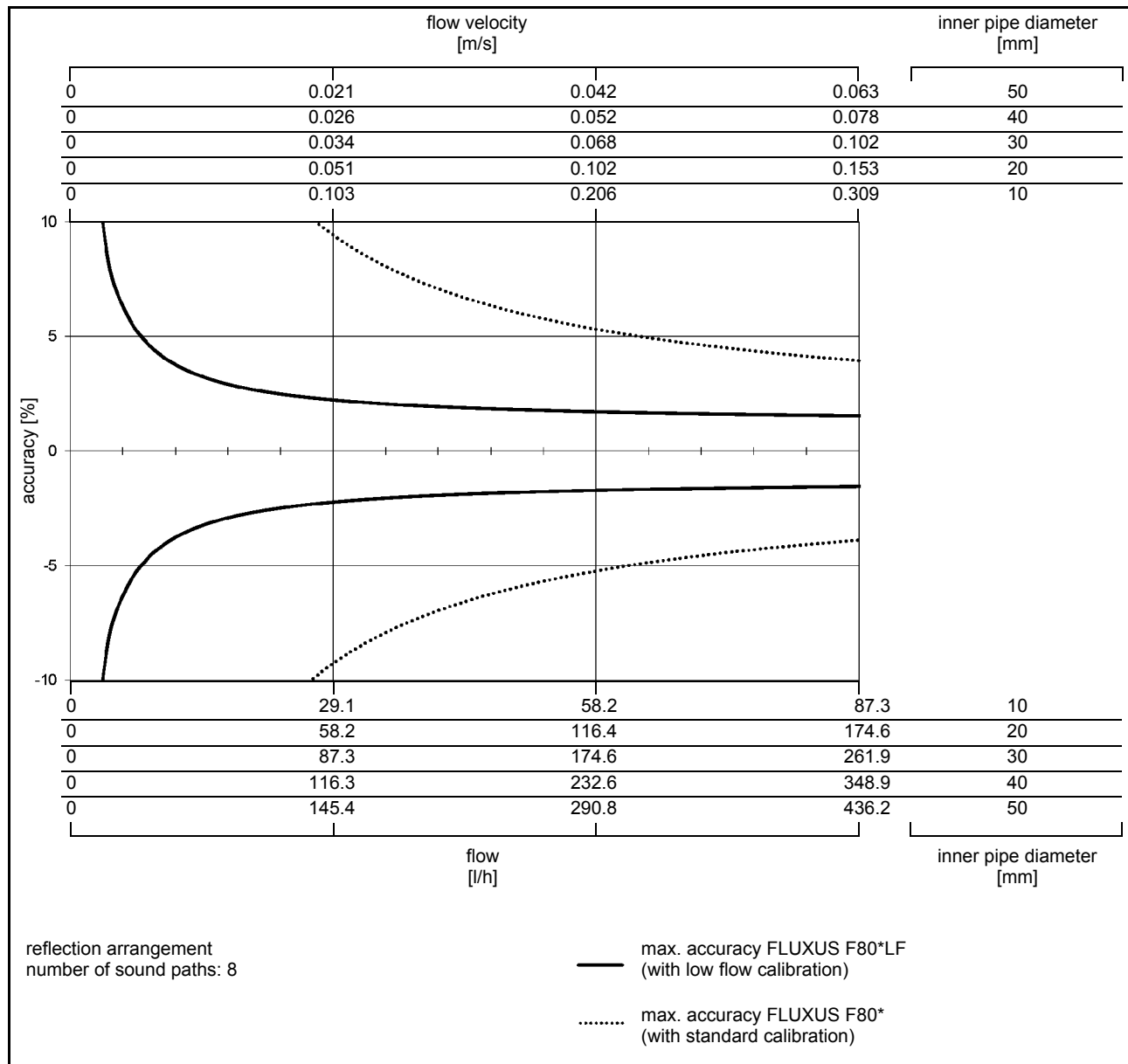
FLUXUS	F808LF-A1	F801LF-A1		F801C24
design	explosion proof field device	explosion proof offshore device		
		active current outputs, binary outputs	passive current outputs, binary outputs	frequency output, binary output
				intrinsically safe outputs: passive current output, binary output
application	extreme low flow measurement for liquids			
transducers	CDQ*N**			
transducer mounting fixture	Variofix L with bolt mounting plates VLQ-DS-B (outer pipe diameter ≤ 48 mm) Variofix L VLQ-DS-S (outer pipe diameter > 48 mm)			
				
measurement				
measurement principle	transit time difference correlation principle			
flow velocity	depending on pipe diameter, see diagrams			
fluid	all acoustically conductive liquids with < 2 % gaseous or solid content in volume			
temperature compensation	corresponding to the recommendations in ANSI/ASME MFC-5.1-2011			
accuracy	depending on pipe diameter, see diagrams			
flow transmitter				
power supply	100...240 V/ 50...60 Hz or 20...32 V DC	100...240 V/50...60 Hz or 20...32 V DC or on request: 11...16 V DC		24 V DC ±10 %
power consumption	< 8 W	< 8 W		< 4 W
number of flow measuring channels	1			
damping	0...100 s, adjustable			
measuring cycle	100...1000 Hz			
response time	1 s			
housing material	cast aluminum, special offshore coating	stainless steel 316/316L (1.4401, 1.4404, 1.4432)		
degree of protection according to IEC/EN 60529	IP66			
dimensions	see dimensional drawing			
weight	5.3 kg	8.5 kg		
fixation	wall mounting, 2" pipe mounting			
operating temperature	-30...+60 °C (< -20 °C without operation of the display)	-20...+60 °C		-20...+50 °C
display	2 x 16 characters, dot matrix, backlight			
menu language	English, German, French, Dutch, Spanish			

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explosion protection					
A T E X / I E C E x	zone	1	1		1
	marking	CE 0637 (Ex) II2G II2D Ex db e IIC T6 Gb Ex tb IIIC T 100 °C Db T _a -40...+60 °C	CE 0637 (Ex) II2G II2D Ex d e IIC T6 Gb Ex tb IIIC T 100 °C Db T _a -20...+60 °C	CE 0637 (Ex) II2G Ex d e [ib] IIC T4 Gb T _a -20...+50 °C	
	certification ATEX	IBExU11ATEX 1022 X	IBExU05ATEX1078		IBExU05ATEX1078
	certification IECEx	IECEX IBE 11.0006X	IECEX IBE 12.0020		-
	type of protection	gas: electronics compartment: flameproof enclosure connection compartment: increased safety dust: protection by enclosure	gas: electronics compartment: flameproof enclosure connection compartment: increased safety dust: protection by enclosure	electronics compartment: flameproof enclosure connection compartment: increased safety output circuits: intrinsic safety	
intrinsic safety parameters	-	-		U _m = 250 V AC intrinsically safe outputs: U _i = 28.2 V P _i = 0.76 W L _i , C _i negligible	
measuring functions					
physical quantities	volumetric flow rate, mass flow rate, flow velocity				
totalizer	volume, mass				
diagnostic functions	sound speed, signal amplitude, SNR, SCNR, standard deviation of amplitudes and transit times				
data logger					
loggable values	all physical quantities, totaled values and diagnostic values				
capacity	> 100 000 measured values				
communication					
interface	- process integration (optional): Modbus RTU or HART - diagnosis: RS232 ¹	- process integration (optional): RS485 (emitter) or Modbus RTU - diagnosis: RS232 ¹	- process integration (optional): RS485 (emitter) or Modbus RTU or HART - diagnosis: RS232 ¹	- diagnosis: RS232 ¹	- diagnosis: RS232 ¹
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 - FluxKoeff: creating fluid data sets - FluxSubstanceLoader: upload of fluid data sets				
cable	RS232 ¹				
adapter	RS232 - USB ¹				

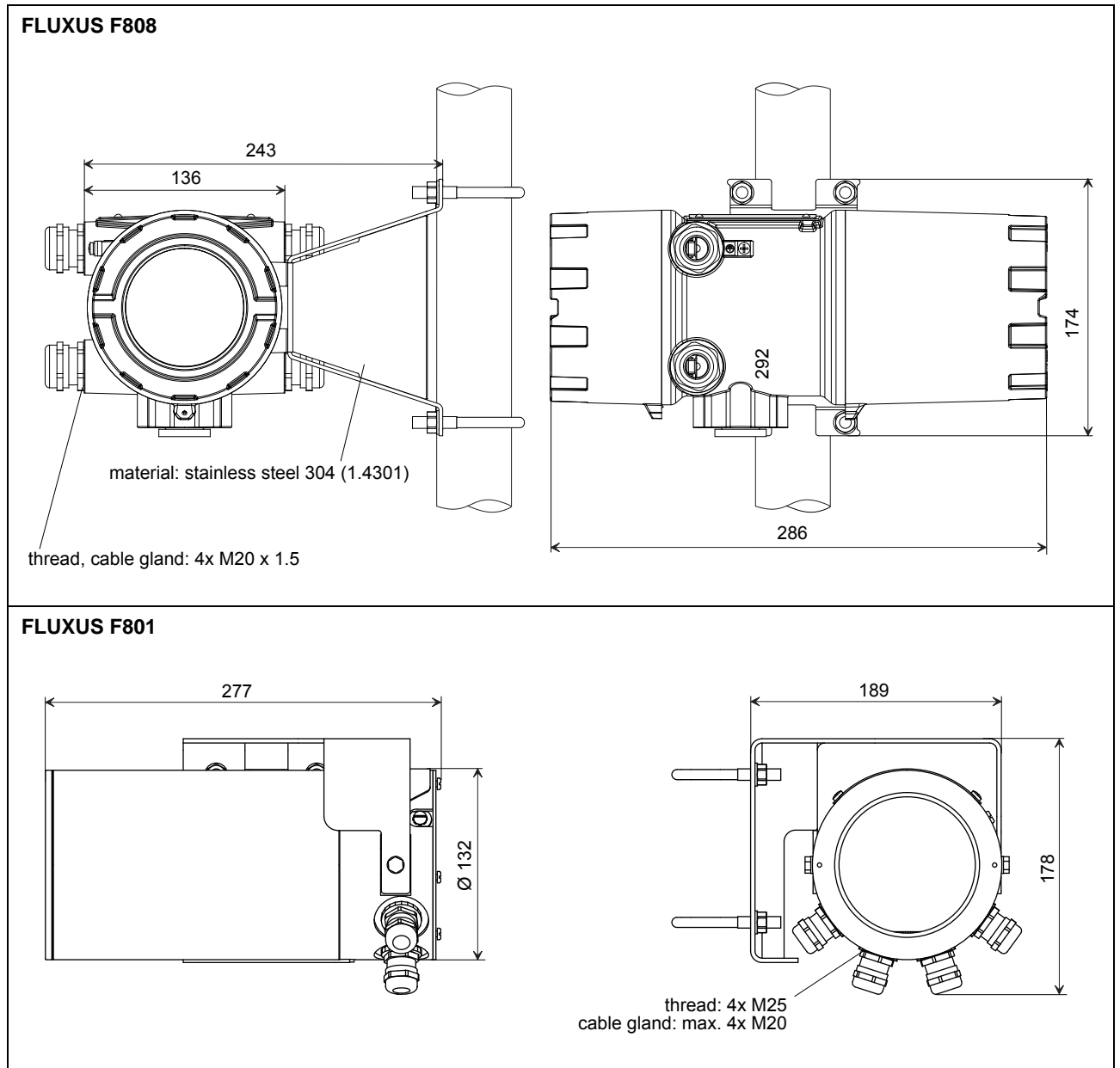
¹ connection of the interface RS232 outside of explosive atmosphere (housing cover open)

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outputs					
	The outputs are galvanically isolated from the transmitter.				
number	current output: 1 binary output: 1 or current output: 1 Modbus or current output: 1/ HART binary output: 1	active current output: 1...2 and binary output (open collector): 1...2 or active current output: 1...2 and binary output (open collector): 1 and binary output (Reed relays): 1	passive current output: 1...2 and binary output (open collector): 1...2 or passive current output: 1...2 and binary output (open collector): 1 and binary output (Reed relays): 1	frequency output: 1 and binary output (open collector): 1	passive current output: 1 and binary output (open collector): 1
current output					
current output I1, (I2) - range - accuracy - active output - passive output	0/4...20 mA 0.1 % of reading ±15 µA R _{ext} < 500 Ω U _{ext} = 4...26.4 V, depending on R _{ext} R _{ext} < 1 kΩ	0/4...20 mA 0.1 % of reading ±15 µA R _{ext} < 500 Ω -	0/4...20 mA 0.1 % of reading ±15 µA - U _{ext} = 4...26.4 V, depending on R _{ext} R _{ext} < 1 kΩ	- - - -	4...20 mA 0.1 % of reading ±15 µA - U _{ext} = 4...28.2 V, depending on R _{ext} R _{ext} < 1 kΩ intrinsic safety
current output I1 in HART mode - range - passive output - active output	4...20 mA U _{ext} = 7...30 V DC U _{int} = 24 V	- - -	4...20 mA U _{ext} = 10...24 V -	- - -	- - -
frequency output					
- range - passive output	- -	- -	- -	0...5 kHz 30 V/100 mA I _{off} = 0.8 mA optional: 8.2 V DIN EN 60947-5-6 (NAMUR)	- -
binary output					
Reed relay open collector	- 24 V/4 mA optional (only in combination with HART): 30 V/100 mA or 8.2 V DIN EN 60947-5-6 (NAMUR)	48 V/100 mA 24 V/4 mA	48 V/100 mA 24 V/4 mA	- 30 V/100 mA I _{off} = 0.8 mA	- 24 V/4 mA intrinsic safety
binary output as alarm output - functions	limit, change of flow direction or error				
binary output as pulse output - pulse value - pulse width	0.01...1000 units 80...1000 ms				

Diagrams



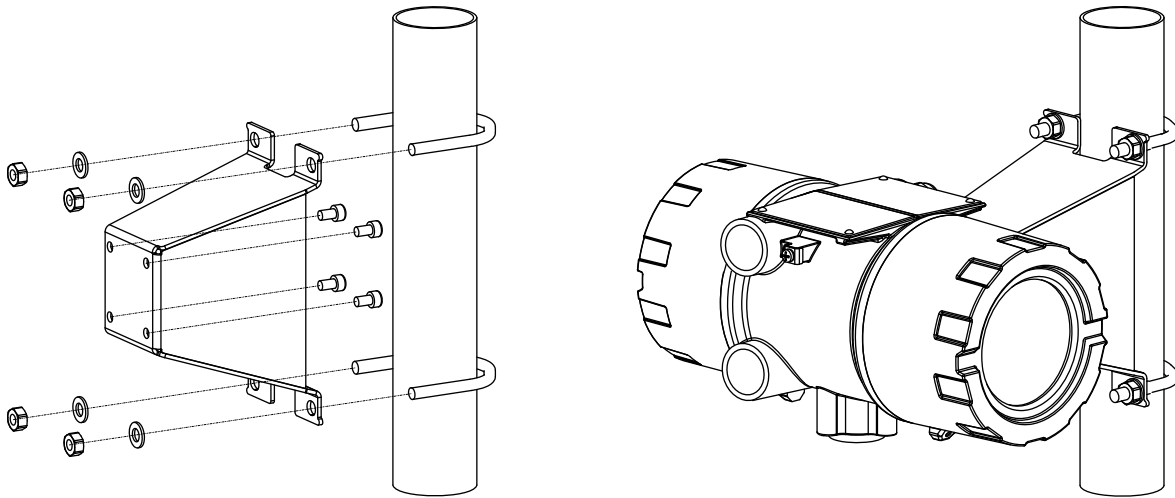
Dimensions



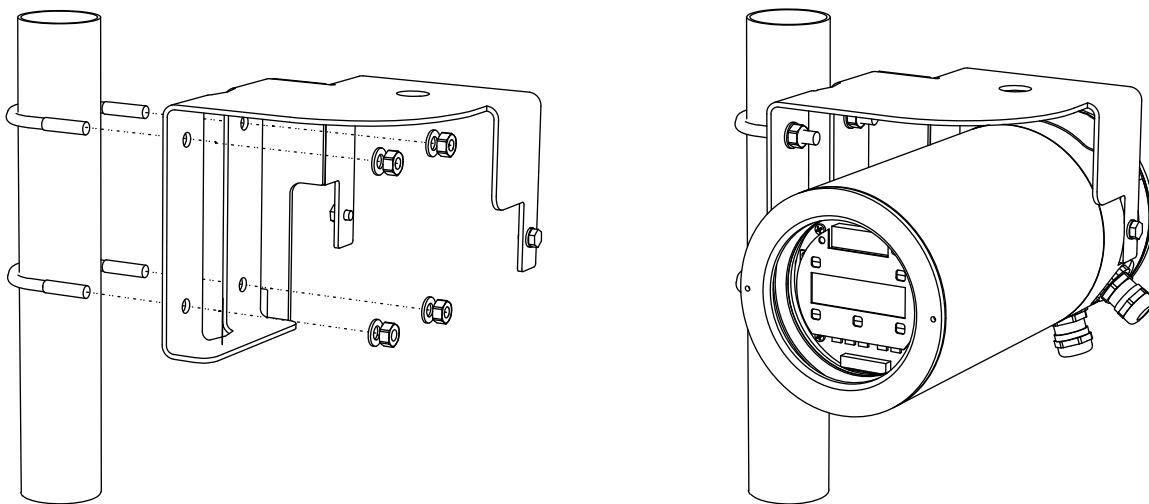
in mm

Wall and 2 " Pipe Mounting Kit

FLUXUS F808



FLUXUS F801



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TSFLUXUS_SU_F80xLFV1-7-1EN_Leu, 2016-02-23