

Features

- One measuring channel
- Flameproof/explosion proof housing for hazardous areas
- Communication interfaces Modbus RTU and HART available
- Certification: TR TS


Applications

- Chemical industry
- Petrochemical industry
- Oil and gas industry



Transmitter

Technical data

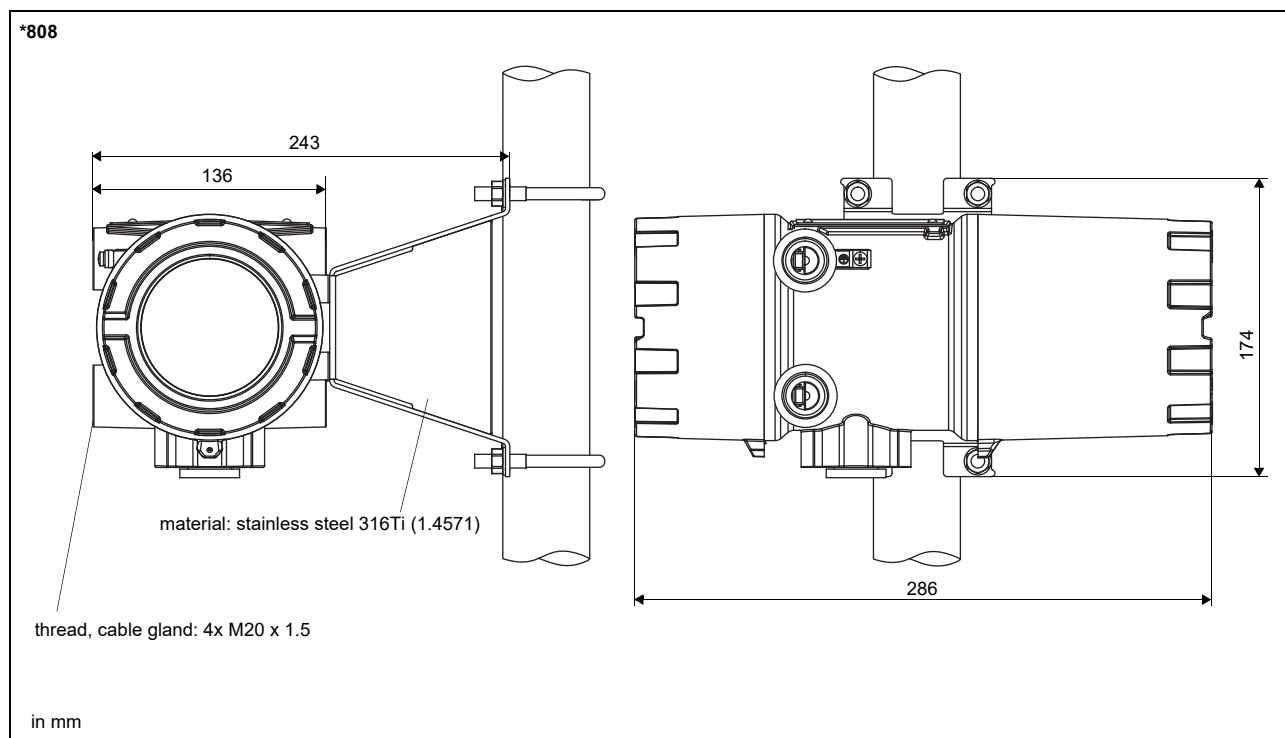
FLUXUS F808	
	
design	explosion-proof field device 1 measuring channel zone 1
supported transducer frequencies	K, M, P, Q on request: G
measurement	
measurement principle	transit time difference correlation principle, automatic NoiseTrek selection for measurements with high gaseous or solid content
flow velocity	m/s 0.01...25
repeatability	0.15 % MV \pm 0.005 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
measurement uncertainty	see metrological certificate
transmitter	
power supply	<ul style="list-style-type: none"> • 100...230 V/50...60 Hz or • 20...32 V ===
power consumption	W < 8
number of measuring channels	1
damping	s 0...100 (adjustable)
measuring cycle	Hz 100...1000
response time	s 1, option: 0.07
housing material	cast aluminum EN AC 44200 mod, special heavy-duty coating (C5 according to EN ISO 12944)
degree of protection	IP66
dimensions	mm see dimensional drawing
weight	kg 5
fixation	wall mounting, 2" pipe mounting
ambient temperature	°C -30...+60 (< -20 without operation of the display)
display	2 x 16 characters, dot matrix, backlight
menu language	Russian, English, German
explosion protection	
• TR TS	
marking	1Ex d e IIC T6 Gb Ex tb IIIC T100 °C Db от -40 °C до +60 °C
certification	ERAC Ex TC RU C-DE.BH02.B.00644
measuring functions	
physical quantities	volumetric flow rate, mass flow rate, flow velocity
totaliser	volume, mass
diagnostic functions	sound speed, signal amplitude, SNR, SCNR, standard deviation of amplitudes and transit times
communication interfaces	
service interfaces	<ul style="list-style-type: none"> • RS232¹ • USB (with adapter)¹
process interfaces	max. 1 option: <ul style="list-style-type: none"> • RS485 (ASCII sender) • Modbus RTU • HART
accessories	
data transmission kit	<ul style="list-style-type: none"> • cable • adapter
software	<ul style="list-style-type: none"> • FluxDiagReader: reading of measured values and parameters, graphical presentation • FluxDiag (optional): reading of measurement data, graphical presentation, report generation
data logger	
loggable values	all physical quantities, totalised physical quantities and diagnostic values
capacity	> 100 000 measured values

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

FLUXUS F808		
outputs		
The outputs are galvanically isolated from the transmitter.		
number		<ul style="list-style-type: none"> • current output: 1 • binary output: 1 or <ul style="list-style-type: none"> • current output: 1 • Modbus or <ul style="list-style-type: none"> • current output: 1/HART • binary output: 1
• current output		
range	mA	0/4...20
accuracy		0.1 % MV $\pm 15 \mu\text{A}$
active output		$R_{\text{ext}} < 500 \Omega$
passive output		$U_{\text{ext}} = 4...26.4 \text{ V}$, depending on R_{ext} ($R_{\text{ext}} < 1 \text{ k}\Omega$ at 26.4 V)
current output in HART mode		
• range	mA	4...20
• active output		$U_{\text{int}} = 24 \text{ V}$
• passive output		$U_{\text{ext}} = 7...30 \text{ V} \text{ ---}$
• binary output		
open collector		24 V/4 mA optional (in combination with HART only): <ul style="list-style-type: none"> • 30 V/100 mA or • 8.2 V DIN EN 60947-5-6 (NAMUR)
binary output as alarm output		
• functions		limit, change of flow direction or error
binary output as pulse output		
• functions		mainly for totalising
• pulse value	units	0.01...1000
• pulse width	ms	1...1000

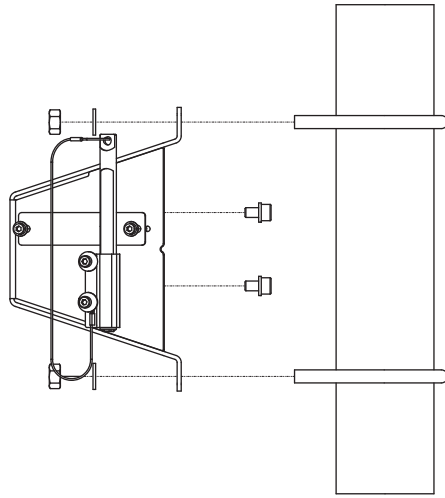
¹ connection of the RS232 interface outside the explosive atmosphere (housing cover is open)

Dimensions



2" pipe mounting kit

*808



Storage

- do not store outdoors
- store within the original package
- store in a dry and dust-free place
- protect against sunlight
- keep all openings closed
- storing temperature: -40...+60 °C

Terminal assignment

*808

The diagram shows a circular terminal block with various connection points. On the left, there are two output terminals labeled 'outputs'. In the center, there are two terminal strips labeled 'KL1' and 'KL3'. To the right of 'KL1' are three terminals labeled 'ARS', 'AR', and 'AV'. To the right of 'KL3' are three terminals labeled 'L(+)', 'N(-)', and 'PE'. At the bottom, there is a terminal labeled 'equipotential bonding terminal (transducers)'. On the right side, there is a terminal labeled 'equipotential bonding terminal'. A 'power supply' connection is shown on the right side. The entire unit is labeled 'transducers'.

power supply¹

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

transducers, extension cable

terminal	connection	transducer
ARS	internal shield	⤴
AR	signal	
AV	signal	⤴
AVS	internal shield	
cable gland or equipotential bonding terminal (transducers)	external shield	⤴ ⤴

outputs (options)¹

terminal strip	terminal		connection
KL1	4 GND	6 (+)	5 (-)
KL3	3 GND	2 (+)	1 (-)
terminal strip	terminal		connection
KL1	4 GND	6 (+)	5 (-)
KL3	3 GND	1 (-)	2 (+)
terminal strip	terminal		connection
KL1	1 (S)	2 (A+)	3 (B-)
KL3	3 GND	2 (+)	1 (-)
terminal strip	terminal		connection
KL1	1 (S)	2 (A+)	3 (B-)
KL3	3 GND	1 (-)	2 (+)

¹ cable (by customer): e.g. flexible wires, with insulated wire ferrules, wire cross-section: 0.25...2.5 mm²

Transducers


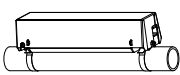
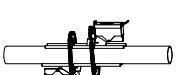
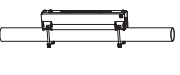
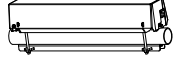
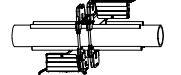
Overview

Shear wave transducers

		technical type				
		G	K	M	P	Q
zone 1 normal temperature range		CDG1N81	CDK1N81	CDM2N81	CDP2N81	CDQ2N81
zone 1 IP68		CDG1LI1	CDK1LI1	CDM2LI1	CDP2LI1	
zone 1 extended temperature range				CDM2E85	CDP2E85	CDQ2E85
inner pipe diameter d						
min. extended	mm	400	100	50	25	10
min. recommended	mm	500	200	100	50	25
max. recommended	mm	4000	2000	1000	400	150
max. extended	mm	6500	2400	1200	480	240
pipe wall thickness						
min.	mm	11	5	2.5	1.2	0.6

for further data see Technical specification TS_F8xx-transducersVx-xxx_Lru

Transducer mounting fixture

Variofix L	Variofix C	transducer box WI for WaveInjector with chains
		
Variofix L with bolt mounting plates	Variofix C with bolt mounting plates	transducer box WI for WaveInjector with threaded rods
		
outer pipe diameter: max. 48 mm	outer pipe diameter: VCM: max. 46 mm VCQ: max. 36 mm	outer pipe diameter: 35...380 mm

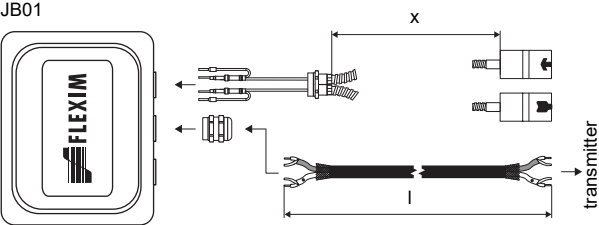
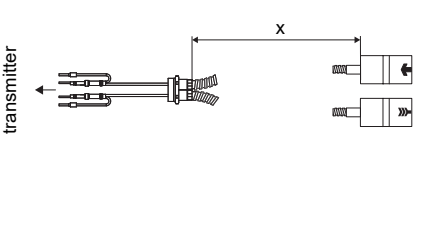
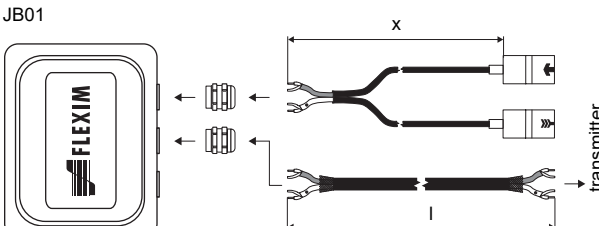
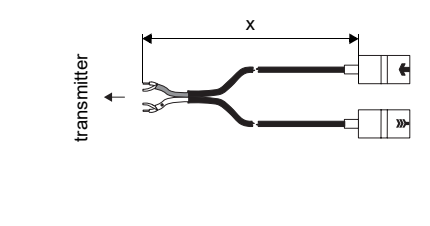
for further data see Technical specification TS_F8xx-transducersVx-xxx_Lru

Coupling materials for transducers

	normal temperature range		extended temperature range			WaveInjector	
	< 100 °C	< 170 °C	< 150 °C	< 200 °C	200...240 °C	< 280 °C	280...630 °C
< 24 h	coupling compound type N or coupling foil type VT	coupling compound type E or coupling foil type VT	coupling compound type E or coupling foil type VT	coupling compound type E or H or coupling foil type VT	coupling foil type TF	coupling foil type A and coupling foil type VT	coupling foil type B and coupling foil type VT
long time measurement	coupling foil type VT	coupling foil type VT	coupling foil type VT	coupling foil type VT			

for further data see Technical specification TS_F8xx-transducersVx-xxx_Lru

Connection systems

connection system T1		
connection with extension cable	direct connection	transducers technical type
<div>JB01</div> 		****g*
<div>JB01</div> 		****L]*

for further data see Technical specification TS_F8xx-transducersVx-xxx_Lru