


Data sheet deltawaveCoG-F



Range of application	
Min. pressure	Values see transducer selection
Temperature range	-40 to +150 °C
Pipe diameter	DN25 – DN700
Pipe materials	Carbon steel, stainless steel, plastics
Gases	Compressed air, natural gas, others on request
Flow velocity	0.01...30 m/s, depending on pipe diameter
Accuracy (volume flow)	± 1...3 % of mv ±0.01 m/s application-dependent ± 0.5 % of mv ±0.01 m/s for field calibration
Reproducibility	0.15 % of mv ±0.01 m/s

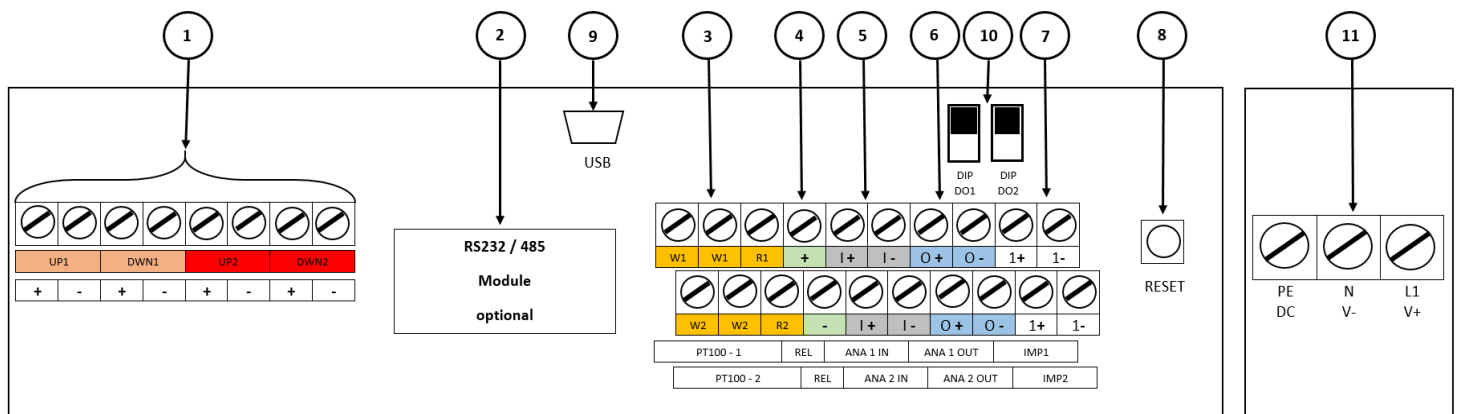
Technical data	
Measurement method	Ultrasonic transit time difference
Measured values	Volume flow, flow velocity, standard volume flow
Counters	Volume, standard volume
Measuring range	-30 ... +30 m/s
Languages	EN-DE-FR; EN-ES-FR; EN-RU-CH
Units	metric, imperial
Power supply	90 – 264 VAC 18 – 36 VDC (opt.)
Power consumption	approx. 10 Watt
Integrated data storage	Micro SD card, 4 GB (more possible)
Signal damping	1...60 sec (adjustable)
Diagnostic functions	Speed of sound, signal strength, SNR, signal quality, amplitude, energy. Signals can be shown graphically on the display.

General information	
	Housing: stainless steel, wall-mounted Protection class: IP65 Dimensions (WxHxD, mm): 360 x 290 x 82 Weight: 4,1 kg Display: LCD 320x240 (backlight: LED, dimmable) Operation: Intuitive via 8 main keys (soft keys) Operating temperature: -20 ... 60 °C Ex: Alternative Ex d housing (optional)

Wiring diagram Input/Output	
Nr.	Description
1	UP1 (+) = red cable (core) transducer
	UP1 (-) = black cable (shield) transducer
	DWN1 (+) = red cable (core) transducer
	DWN1 (-) = black cable (shield) transducer
2	Modbus (RS485)
3	PT100 – 1 & 2 (connection for 3-wire Pt100)
4	Relay connection, passive, potential-free
5	Analogue inputs 1 & 2, 4...20mA (active/passive)
6	Analogue outputs 1 & 2, 4...20mA (active/passive)
7	Digital outputs 1 & 2: pulse (active/passive)
8	Hardware restart (re-initialisation)
9	Mini USB type B socket (access to SD card)
10	DIP switch active/passive circuit IMP1 IMP2
11	Connection power supply

When changing between active and passive, the polarity changes: Active: O + (+); O - (-) Passive: O + (-); O - (+)

Interfaces	
Inputs	2x 4...20 mA (active/passive) for p&T 2x Pt100 (3-wire)
Outputs	1x USB socket (Mini B) 2x Transducer (2CH: 4x) 2x 4...20mA (active/passive) 1x Pulse (active/passive) 1x Relay (max 50V; 0.5A)
Communication	RS485 / Modbus opt.



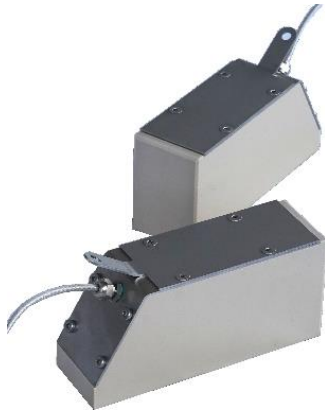
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Specifications ultrasonic transducer



Housing: PEEK with stainless steel cover

Type code:

XUC-LW10:	Frequency range 1000 +/- 300 kHz
XUC-LW05:	Frequency range 500 +/- 200 kHz
XUC-LW03:	Frequency range 300 +/- 150 kHz

Mounting rails: stainless steel, clamp-on mounting

Protection class: IP54

Dimensions (WxHxD, mm): 110 x 70 x 35

Weight: approx. 0.5 kg per transducer

Cable: coaxial cable 10 m (other lengths opt.)

Operating temperature: -40 ... 150 °C

Ex: Ex q (G)/ Ex tb (D) (optional, deviating temperature range)

Transducer selection

Pipe wall thickness	LW10	2 – 5 mm	
	LW05	4 – 9 mm	
	LW03	7 – 15 mm	
Internal pipe diameter	LW10	25 – 90 mm	
	LW05	90 – 450 mm	
	LW03	90 – 700 mm	
Mounting mode	Z-mode (mounting rails fixed with steel straps)		
Minimal Media pressure (absolute) Depending on application, typical range of use for natural gas, compressed air	Min. pressure	Metal	Plastic
	LW10	10 bar (ID > 60 mm) 5 bar (ID < 60 mm)	2 bar
	LW05	15 bar (ID > 120 mm) 10 bar (ID < 120 mm)	2 bar
	LW03	15 bar	2 bar
(Lower pressures only with developmental support)			

Any questions? We are happy to help you!

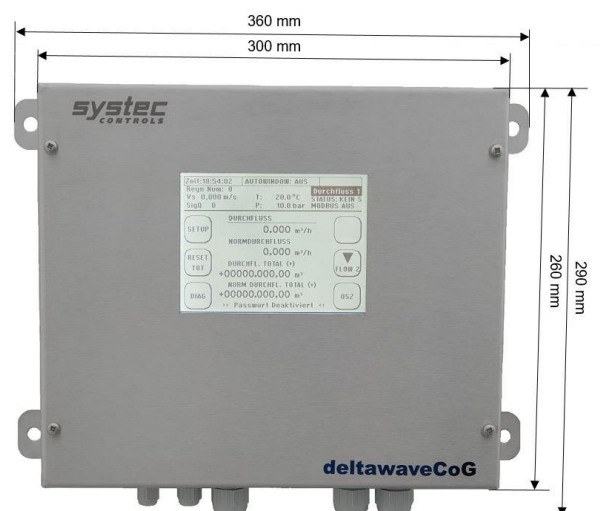
If you are not sure which deltawaveCoG is the right for your application, please contact us! We are happy to help.

Further, detailed information about the deltawaveCoG and application examples can be found on the product pages of our website under www.systemec-controls.de (Products).

Under www.systemec-controls.de (Information & Contact) you will find your personal contact person and can also send us an inquiry via the online form.

You can get personal contact to the specialists at the head office here:

Installation dimensions



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