


# Data sheet deltawaveCoG-P



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

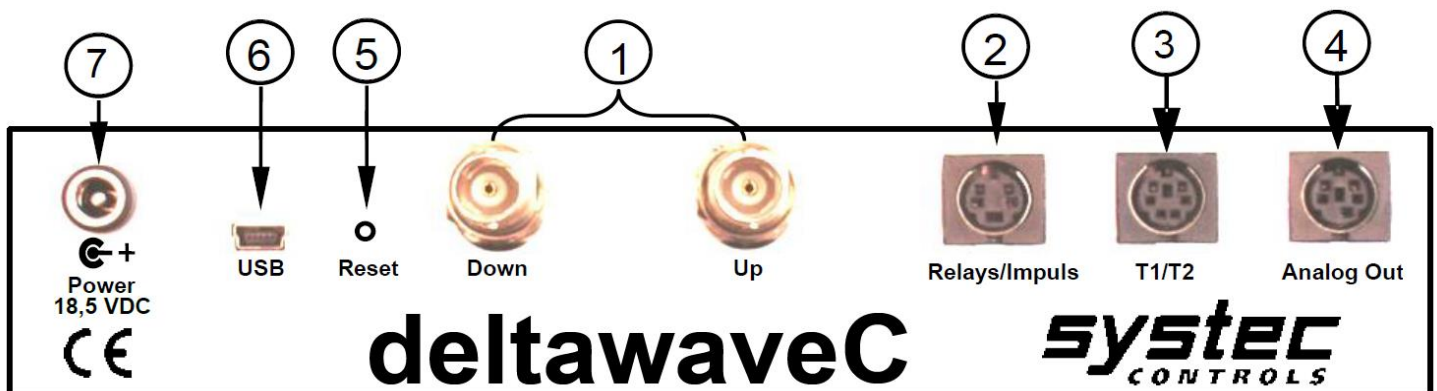
Technical data	
Measurement method	Ultrasonic transit time difference
Measured values	Volume flow, flow velocity, standard volume flow
Counters	Volume, standard volume
Measuring range	-30 ... +30 m/s
Languages	EN-DE-FR; EN-ES-FR; EN-RU-CH
Units	metric, imperial
Power consumption	approx. 10 Watt
Integrated 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: Aluminium (portable), PVC
	Protection class: IP40
	Dimensions (WxHxD, mm): 265 x 190 x 70
	Weight: 1,5 kg
	Display: LCD 320x240 (Backlight: LED, dimmable)
	Operation: Intuitive via 8 main keys (soft keys)
	Operating temperature: -20 ... 60 °C

Wiring diagram Input/Output		
1	UP DWN	BNC-Inputs for ultrasonic transducer
2	Relays/ Pulse	4-pole mini DIN socket: relay connection (passive, potential-free)
3	T1/T2	6-pole mini DIN socket: 1 pair of 3-wire Pt100 (heat quantity measurement)
4	Analog Out	2 analogue outputs: 4...20mA standard signal, 24VDC, active (optionally passive) from CTRL 2.1 according to Namur NE43 (3.8-20.5 mA)
5	RESET	Hardware-Reset (Restart of the system)
6	USB	Mini USB type B socket (access to SD card)
7	Power	Switching power supply: 19 V/DC; 3.42 A


Interfaces	
Inputs	2x Pt100 (3-wire)
Outputs	1x USB socket (Mini B) 2x Transducer 2x 4...20mA (active/passive) 1x Pulse (passive) 1x Relay (max 50V; 0.5A)

Power supply	
Power supply unit	Input: 100-240 V/AC Output: 19 V/DC (max. 3,42 A)
Accumulator	Li-Ion-Akku: 6000 mAh Runtime: ca. 22 h



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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](http://www.systemec-controls.de) (Products).

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

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