

# Data sheet deltawaveC-P

Range of application	
Temperature range	-40 to +150 °C
Pipe diameter	DN10 – DN6000
Pipe materials	All common sound-conducting materials (steel, plastics, etc.)
Media	Sound conducting liquids
Flow velocity	0.01...30 m/s,
Additional function	Heat quantity measurement (opt.)

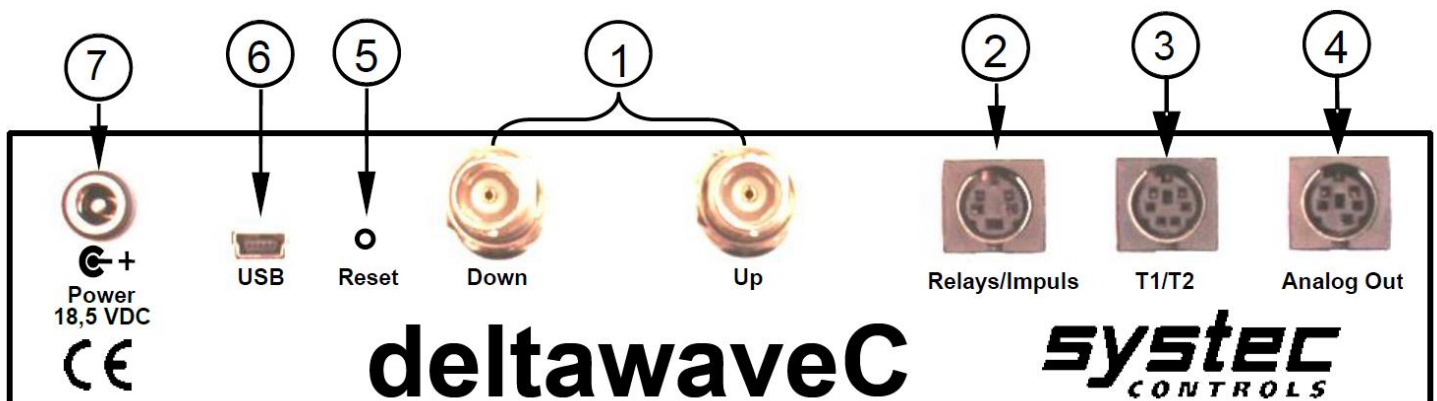
General information	
	Housing: Aluminium (portable), PVC
	Protection class: IP40
	Dimensions (WxHxD, mm): 265 x 190 x 70
	Weight: 1,5 kg
	Display: LCD 320x240 (Backlight: LED, dimmable)
	Operation: Intuitive via 8 main keys (soft keys)
	Operating temperature: -20 ... 60 °C

Interfaces	
Inputs	2x Pt100 (3-wire) optional
Outputs	1x USB socket (Mini B) 2x Transducer 2x 4...20mA (active/passive) 1x Pulse (passive) 1x Relay (max 50V; 0,5A)

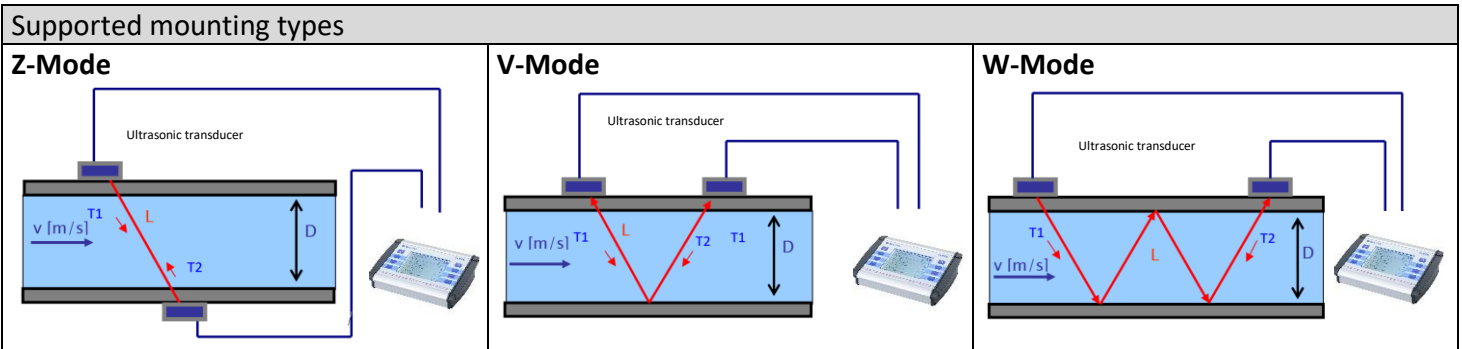
Power supply	
Power supply unit	Input: 100-240 V/AC Output: 19 V/DC (max. 3,42 A)
Accumulator	Li-Ion-Akku: 6000 mAh Runtime: ca. 22 h

Technical data	
Measurement method	Ultrasonic transit time difference
Measured values	Volume flow, mass flow, flow velocity and sound velocity Optional: heat output
Counters	Volume, mass, heat quantity (opt.)
Measuring range	-30 ... +30 m/s
Languages	EN-DE-FR; EN-ES-FR; EN-RU-CH; EN-DE-PO
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.

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



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Specifications ultrasonic transducer					
Transducer type	Nominal size	Media temperature	Cable length	Material housing	Coupling
F40 4 MHz	DN10 ... DN100 (DN20...DN100)(1)	-40 ... 150°C	10 m	PEEK / Aluminium IP68	Gel (Magnalube) Coupling pad (opt.)
F10 (Ex opt.) 1 MHz	DN32 ... DN400 (DN50 ... DN400)(1)	-40 ... 150°C	10 m	PEEK / Aluminium IP68	Gel (Magnalube) Coupling pad (opt.)
F05 (Ex opt.) 500 kHz	DN200 ... DN6000 (DN200 ... DN2000)(1)	-40 ... 150°C	10 m	PEEK / Aluminium IP68	Gel (Magnalube) Coupling pad (opt.)
HT10 1 MHz	DN32 ... DN400	-40 ... 380°C	5 m	Steel IP66/68	Silver foil

Accuracy		
Pipe Size	Accuracies	Repeatability
10 – 32 mm	0,5 % v. M. +/- 0,04 m/s (2)	+/- 0.005m/s (2)
	1,0 % v. M. +/- 0,04 m/s (3)	+/- 0.01m/s (3)
32 – 50 mm	0,5 % v. M. +/- 0,03 m/s (2)	+/- 0.005m/s (2)
	1,0 % v. M. +/- 0,03 m/s (3)	+/- 0.01m/s (3)
50 – 100 mm	0,5 % v. M. +/- 0,01 m/s (2)	+/- 0.005m/s (2)
	1,0 % v. M. +/- 0,02 m/s (3)	+/- 0.01m/s (3)
100 – 6000 mm	0,5 % v. M. +/- 0,005 m/s (2)	+/- 0.005m/s (2)
	1,0 % v. M. +/- 0,01 m/s (3)	+/- 0.005m/s (3)

- (1) In V- or W-mode operation
- (2) XG-High Accuracy Type option with filed calibration
- (3) Transit-Time operation under reference conditions

## Supplied in portable measuring case



## Any questions? We are happy to help you!

If you are not sure which deltawaveC is right for your application, contact us! We will be happy to help.

Further, detailed information about the deltawaveC and application examples can be found on the product pages of our website at [www.systemec-controls.de](http://www.systemec-controls.de) (Products).

At [www.systemec-controls.de](http://www.systemec-controls.de) (Info & Contact) you will find your personal contact person and you can also send us an enquiry using the online form.

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