

Q-Aqua Responder



If the installation of an underwater cable to connect the transducers is impossible or undesirable, both the transmitter and the receiver are installed on the same river bank. On the opposite river bank a responder is installed, which receives the ultrasonic signal, amplifies it and sends it back.

Operating principle: travel time method/ ultrasonic discharge measurement

Respondersystems

Measurement range: -10 m/s ... +10 m/s

Accuracy v: < 0,1% deviation

Accuracy Q: < 3% deviation, better than +/- 1%, if calibrated on site

Processing: mainboard EURO STPC embedded controller 32 MB compact flash (datenlogger) onboard SVGA Grafikcontroller, watchdog timer for automatic reboot after shutdown

Display: LC-Display, illuminated

Operation control: RS 232, Laptop or Modem

Analog/digital converter: 12 Bit

optional input: 2 x 0/4 - 20 mA, 2 x 0 - 1/2,5 V

optional output: 3 x 0/4 - 20 mA , 2 x RS 232

variable interfaces: RS 232/, RS 422/485 or Active X

Power supply: 12 – 36 V_{dc}

Power consumption ca. < 11 VA at continuous operation, < 1 VA at standby modus

Remote data transfer: optional analog, ISDN, GSM, GPRS

Q-Aqua Responder

Type	AFC (compact systems)	Responder (19" housing)	Transducers (max. no. of)	Path length (maximal)	Frequency
1/100-200	x	x	4	100 m	200 kHz
1/200-200	x	x	4	200 m	200 kHz
2/100-200	x	x	8	100 m	200 kHz
2/200-200	x	x	8	200 m	200 kHz
3/100-200	x	x	12	100 m	200 kHz
3/200-200	x	x	12	200 m	200 kHz
1/500-28	x	x	4	500 m	28 kHz
1/2000-28	x	x	4	2000 m	28 kHz
2/500-28	x	x	8	500 m	28 kHz
2/2000-28	x	x	8	2000 m	28 kHz
3/500-28	x	x	12	500 m	28 kHz
3/2000-28	x	x	12	2000 m	28 kHz

Transducers

Type	TC 2024/2153	TC 2115
Frequency in kHz	200	28
Input power in W	600 at 1% duty cycle	1000
Kabellänge in m	0,6	18

Responder system

