Teledyne RD Instruments

citadel® CT-ETH

Robust, Reliable, and Rugged CT

Compact Conductivity and Temperature Meter with Direct Digital Output

The CITADEL CT-ETH incorporates proven inductively coupled conductivity sensor technology with a thermistor.

Data is output continuously via RS-232 or RS-485. All CT-ETH sensors are for mounting thru-hull of a vessel, in the flow, with no pumps or other artificial flushing devices required. Precise internal fixed references provide continuous calibration for increased long-term reliability.

PRODUCT FEATURES

- Non-electrode ceramic inductive conductivity sensor immune to calibration drift caused by electric field changes
- Cost-savings with longer calibration schedule
- High measurement accuracy without the need for pumps
- Lightweight yet durable construction

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TECHNICAL SPECIFICATIONS

Sensors	**Parameter**	**Conductivity**	**Temperature**
	Range	0-70mS/cm	-2° to 32°C
	Accuracy	±0.003mS/cm[1,2]	±0.005°C
	Stability	±0.01mS/cm/month[1,3]	±0.002°C/month
	Resolution	0.0001mS/cm	±0.0001°C
System	Power	6 to 14VDC at 120mA, 770mW maximum (input connector jumper wake-up capability)	
	Sample Rate	User selectable, 2-5 frames per second	
	Resolution	16 bit at 5 frames per second	
Spare Channels	6 Unipolar Channels, 0 to 5VDC 1.22mV resolution		
Data Format	Conductivity	mS/cm	
	Temperature	ºC (ITS-90)	
	Pressure	decibars, (SNNNNN.NN)	
	Sound Velocity	meter/sec (UNESCO 44)	
	Salinity	PSU (PSS-78)	
	Time	Date	
	All data in ASCII, 8 data bits, one stop bit, no parity RS-232 or RS-485		
Baud Rate	User selectable:	9600, 19200, 38400	
Internal Clock	±5 ppm initial accuracy ±12 ppm per year Programmable alarm and sleep functions		
Dimensions	428mm (16.85 in) overall length; 88.9mm (3.5 in) max diameter (drawings available upon request)		

1 Specified at 22°C and 35PSU
2 Defines as root sum of the squares (RSS) of endpoint non-linearity, repeatability error, and calibration uncertainty.
3 Measured over a typical one-year period.

TELEDYNE
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