Ordering Information

Model	Product Description
DCT1088	Digital Correlation Transit Time Flowmeter Flow Range: ± 0 to 50 ft/s (±0 to 15 m/s) Digital Interface, RS232
Code	**Display**
1	None
2	8 digit backlit LCD
Code	**Outputs**
1	4-20 mA DC
2	4-20 mA DC and remote totalizer
3	One relay, 1 Amp SPST fully programmable
Code	**Power Supply**
1	90-132 VAC, 50/60 Hz
2	190-250 VAC, 50/60 Hz
3	12 VDC nominal
4	24 VDC nominal
Code	**Transmitter Enclosure**
1	NEMA-4X (IP65)
2	NEMA 7
Code	**Transducer Cable Length**
30A or XXXXA	30 ft. (9m) cable - standard Additional cable, max. 1,000 ft. (305m), 10 ft. (3m) increments
Code	**Transducer Hazardous Area Certification**
A	None
B	CSA: Class I, Div. 2, Groups A,B,C,D Class II, Div. 2, Groups E,F,G (pending)
C	CSA: Class I, Div. 1, Groups C,D Class II, Div. 1, Groups E,F,G *IS barriers installed in transmitter*
D	CENELEC (LCIE): EEx ia IIB T6 (pending) *IS barriers installed in transmitter*
Typical Model Number: DCT1088 -2-3-1-1-30A-A	

TimeGate Flowmeter Configuration and Analysis Program

Code	Description
22501-9588	Windows 95 Version *Requires a 386 PC or better with 8 MB RAM*

Polysonics is approved to the ISO 9001 quality standard.

Polysonics is one of the world's leading suppliers of ultrasonic flowmeters for industrial and municipal applications.

Microsoft Start

POLYSONICS®

A subsidiary of ONIX Systems Inc., a Thermo Electron company.

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ISO 9001

Represented by:

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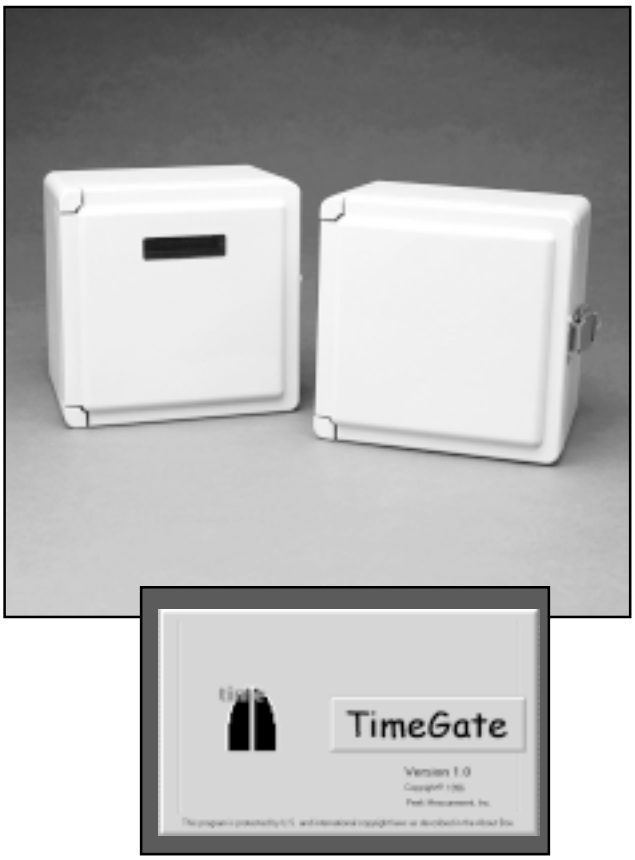
DCT1088 Digital Correlation Transit Time Flowmeter



Applications

- *HVAC*
- *Potable water*
- *Ultrapure liquids*
- *De-ionized water*
- *Petroleum products*
- *Water and waste management*

Features

- *Accuracy to ±0.5%*
- *0.001 ft/s flow sensitivity*
- *AC or DC supply operation*
- *Easy to install, clamp-on design*
- *Bi-directional flow measurement*
- *TimeGate signal analysis and configuration*

The DCT1088 provides an economical alternative to magnetic, vortex and differential pressure flow transmitters. Combining digital signal processing (DSP) with advanced correlation detection methods, it features exceptional performance and flexibility. While principally designed for clean liquid applications, the instrument is tolerant of liquids with higher concentrations of gas bubbles or entrained solids than was previously possible with transit time technology. The non-intrusive, clamp-on transducers can be installed without flow interruption and ensure leak free measurements with zero pressure drop.

Housed in a rugged NEMA 4X (IP65) enclosure and qualified for -40°C operation, the DCT1088 is well suited to most industrial environments. The optional display is a high resolution, backlit 8 digit LCD providing excellent visibility, even in poorly lit conditions. Outputs include a 12 bit digital, optically isolated, 4-20mA analog signal and RS232 serial interface. An optional, fully programmable SPST relay or remote totalizer are also available. The instrument can be specified for operation from 90-132 VAC, 190-250 VAC, nominal 12 VDC or nominal 24 VDC supply voltages.

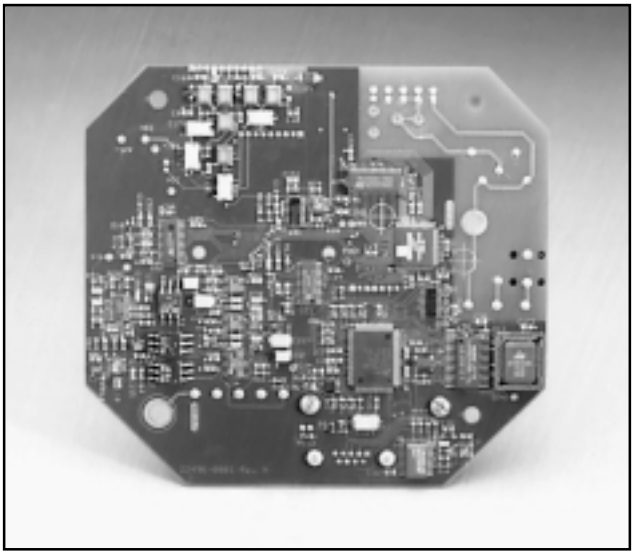
Programming of the flowmeter is simple and can be accomplished in minutes with TimeGate, a Microsoft Windows compatible signal analysis and configuration program supplied with each instrument. TimeGate features easy to use, pull-down menus and pop-up windows. It provides access to an extensive range of graphical diagnostics information which permits the user to quickly determine the quality and accuracy of the flow measurement.

DCT1088 Digital Correlation Transit Time Flowmeter

To simplify field set-up, a HELP button is also available which provides instantaneous access to highlights of the instruction manual. Once the flowmeter has been configured, a screen provides a summary of all the key set-up parameters for subsequent printing. This significantly simplifies the calibration and configuration data retention requirements for ISO 9000, FDA and OSHA compliance.

For hazardous area applications, the DCT1088 is available with CSA Class 1, Div. 1 certified transducers. When this option is selected, the instrument is supplied with intrinsically safe barriers installed in the transmitter enclosure. Class 1, Div. 2 certified transducers (pending) are also available. For installations where the transmitter requires Class I, Div. 1 certification, the option of a NEMA 7 enclosure is provided.

Peek Measurement manufactures a comprehensive range of non-intrusive portable and dedicated ultrasonic flowmeters. Models are available for acids, corrosive and toxic liquids, petroleum products, water and wastewater management, sewage treatment, de-ionized water and ultrapure liquids. For further information, please contact

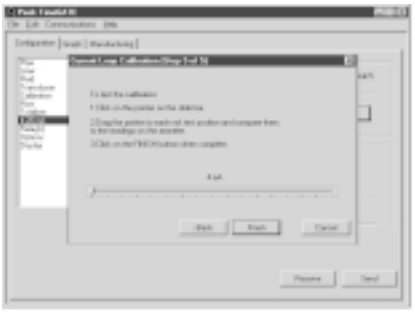


The DCT1088 features surface mount technology, Flash memory, a field replaceable 4-20mA output board and a single chip microcontroller.

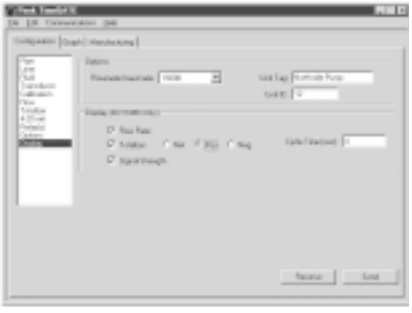
TimeGate Signal Analysis and Configuration Program

Featuring easy to use pull-down menus and pop-up windows, TimeGate is supplied in Windows 95 and Windows NT compatible versions.

Configuration screen



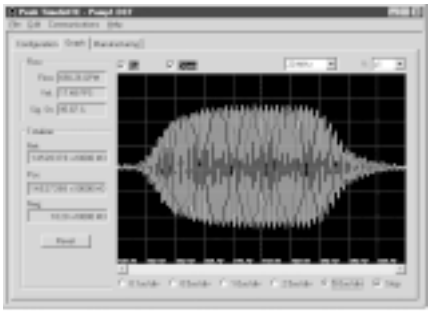
Current loop output calibration



Display setup

Optional relay setup

Manufacturing/ID data



Flow signal analysis

DCT1088 Specifications

Performance Specifications

Flow Range:	± 0 to 50 ft/s (± 0 to 15 m/s).
Accuracy:	± 0.5% of velocity or ± 0.05 ft/s (±0.0152 m/s), typical, digital output.
Sensitivity:	0.001 ft/s (0.3 mm/s) at any flow rate, including zero.
Repeatability:	± 0.2% or 0.016 ft/s (0.0049 m/s).
Linearity:	± 0.1% of scale, digital output.
Pipe Size:	1 in. to 200 in. (25mm to 5m).

Functional Specifications

Outputs:	4-20 mA (into 1,000 Ohms), 12 bit, 5 kV opto-isolated, loop or self-powered. RS232 serial interface.
Power Supply:	90-132 VAC, 50/60 Hz. (standard); 190-250 VAC, 50/60 Hz. (option); 12 VDC ± 20% (option); 24 VDC ± 20% (option).
Optional Display:	8 digit, backlit LCD. Indicates flow rate, signal strength, and/or total.
Optional Relay:	Programmable 1 Amp, SPST. *(Relay not available with 4-20 mA output).*
Optional Totalizer Output:	Dry Contact.
Programming:	Via TimeGate. Supplied in Windows 3.1 and Windows 95 versions.
Temperature Range:	
Transducers -	-40° to +300°F (-40° to +150°C) Optional higher temperature range available.
Transmitter -	-40° to +140°F (-40° to +60°C).
Humidity Limits:	0-100% relative humidity.
Optional Transducer Certification:	Class I, Div. 1, Groups C and D; Class ll, Div. 1, Groups E, F, and G.

Physical Specifications

Transmitter:	NEMA 4X (IP65), flame retardant, fiberglass-reinforced polyester (standard); NEMA 7 (optional).
Transducers:	Encapsulated design. Standard cable length: 30 ft. (9m). Maximum cable length: 1,000 ft. (305m).
Weight:	Approximately 7 lbs. (3.2 kg) without options.