The Thermo Scientific DCT6088 advanced transit time flowmeter employs a unique digital correlation technique to reliably measure the flow of clean liquids. Designed for use on pipes of all sizes, the non-intrusive device is easy-to-install, simple to operate, and eliminates pressure loss and leakage which reduces downtime and increases profit potential.

**Flexible & Easy-to-Use**
Combining digital signal processing (DSP) with correlation detection methods, the Thermo Scientific DCT6088 features exceptional performance and flexibility. It tolerates higher concentrations of gas bubbles or entrained solids compared to traditional transit time flowmeters which are principally designed for extremely clean liquid applications only. The non-intrusive, clamp-on transducers can be installed without flow interruption and ensure leak-free measurements with zero pressure drop. The simple, menu-driven operation of the DCT6088 allows the meter to be commissioned in a fraction of the time necessary for competitive transit time flowmeters.

**Engineered for Maximum Uptime**
Housed in a rugged IP65 enclosure and qualified for -40°C (-40°F) operation, the DCT6088 is well-suited to most industrial environments. The high resolution, backlit LCD provides excellent visibility even in poorly lit conditions. Outputs include a 12-bit digital, optically-isolated, 4-20 mA analog signal and RS232 serial interface.

**Programmable Relays for Remote Output**
Up to four programmable relays can be specified. The relays may be used as a contact output to a remote device such as an alarm, totalizer, sampler or chlorinator. A powerful 30,000 point data logger programmable in intervals of one second or more is also incorporated in the flowmeter.

**Modular & Simple to Service**
The plug-in, modular construction of the instrument simplifies field service and, in the unlikely event of failure, permits the boards to be replaced in seconds. The DCT6088 features many parts which are common to other Thermo Scientific flowmeters, dramatically reducing spare parts inventory at sites where multiple meters are in service.

**Sample Applications**
- HVAC
- Potable water
- Ultrapure liquid
- Deionized water
- Petroleum products
- Water and waste management

**Features**
- Accuracy to ±0.5% of velocity full scale
- 0.01 ft/sec flow sensitivity
- Up to 4 programmable relays
- Easy to install, clamp-on design
- Bi-directional flow measurement
- Powerful 30,000 point data logger

The Thermo Scientific UltraScan program offers a simple method to configure the flowmeter and access to the extensive waveform diagnostics.
Thermo Scientific DCT6088

Performance Specifications
- Velocity Range: ±0 m/s to 15 m/s (±0 m/s to 50 ft/s)
- Accuracy: ±0.5% of velocity or ±0.05 ft/sec typical
- Fluids: Potable water, ultrapure liquids, deionized water, petroleum products
- Pipe Size: 25.4 mm to 5 m (1 in to 200 in); For line sizes smaller than 1 inch, consult Thermo Fisher Scientific

Physical Specifications
- Transmitter: IP65, flame retardant, fiberglass reinforced polyester
- Transducers: Two encapsulated transducers suitable for submersion or underground service; 9 m (30 ft) standard cable length
- Weight: Approximately 5.4 kg (12 lbs)

Functional Specifications
- Outputs: 4-20 mA (into 1k - 5k ohms), 12-bit, 5 kV, opto-isolated, loop or self-powered; RS232 serial interface
- Power Supply: 90-132 Vac or 190-250 Vac, 50/60 Hz (switch selectable); 11-28 Vdc
- Temperature Range:
  - Transducers: (surface) -40°C to +100°C (-40°F to +212°F); (ambient) -28°C to +80°C (-20°F to +176°F)
  - Transmitters: -40°C to +60°C (-40°F to +140°F)
  - Contact factory for higher temperature range requirements
- Keypad: 19-key with tactile action
- Display: 2-line, 40-character, alphanumeric, backlit LCD indicating present and total flow, velocity and signal strength
- Data Logger: 30,000 point data logger; programmable in 1 second intervals

DCT6088 Dimensional Diagram

DCT6088 Mounting Methods
- Z Method: directly across the pipe – 203 mm (8 in) and larger
- V Method: single reflex – 101 mm (4 in) and larger
- W Method: double reflex – 50 mm (2 in) and larger
- WW Method: multi reflex – 25 mm (1 in)

Ordering Information
- MODEL NUMBER: DCT6088: Dedicated Digital Correlation Transit Time Flowmeter
- A. POWER SUPPLY:
  1: 90 to 132 Vac, 50/60 Hz
  2: 190 to 250 Vac, 50/60 Hz
  3: 12 to 24 Vdc nominal
- B. OUTPUT:
  1: 4-20 mA DC, no relay
  2: One relay
  3: Three relays
  4: Four relays
- C. TRANSMITTER ENCLOSURE:
  1: NEMA 4X
  2: NEMA 7
- D. TRANSDUCER TYPE:
  1: Standard cable (100∞C/212∞F max)
  2: High temp cable (200∞C/392∞F max)
- E. CABLE LENGTH:
  1: 9 m (30 ft) cable
  2: XXX = length in feet
- F. TRANSDUCER HAZARDOUS AREA CERTIFICATION:
  1: None
  2: CSA: Class I, Div. 2 Groups A, B, C, D or Class II, Div. 2 Groups E, F, G
  3: CSA: Class I, Div. 1 Groups C, D or Class II, Div. 1 Groups E, F, G

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