# CANTY

## PROCESS TECHNOLOGY

# SMART INFLOW™ TURBIDITY MEASUREMENT SYSTEM

### Real-Time Turbidity Measurement with Intelligent Image Analysis

The CANTY SMART INFLOW™ system provides continuous, real-time turbidity measurement directly within the process stream, eliminating the need for manual sampling and laboratory analysis. Utilizing a high-resolution vision system, LED illumination, and advanced image analysis, the system continuously monitors the process and evaluates fluid conditions in real time.



The SMART INFLOW™ analyzes process images to distinguish actual turbidity changes from bubbles and other visual disturbances. Multiple sensing zones can be configured and compared against baseline process conditions, enabling the system to detect changes, generate alarms, and provide actionable process insights.

No sampling or laboratory analysis is required. Each unit integrates seamlessly with existing TCP/IP networks. CANTYVISIONCLIENT™ software is installed on a user-supplied PC and communicates with the INFLOW™ measurement system via Ethernet. Process images can be viewed from any networked computer, while CANTYVISIONCLIENT™ performs remote analysis of live images. A comprehensive library of standard utilities and data functions provides a wide range of real-time process information.

The CANTY INFLOW™ Turbidity, Color, and Percent Solids Measurement System features a 0-1/2” variable insertion measurement gap. This design is enabled by the Fuseview™ sight glass, which positions the fused optical components directly in the center of the process stream, a capability unique to the Canty system. The fused-glass seal contains no gaskets, ledges, or steps, allowing for the highest-velocity, most representative sample while helping keep the sensor clean, even in demanding applications such as polymers, crude oil, drilling mud, and epoxy.

Because the fused-glass seal remains at process temperature, product buildup caused by thermal variations is minimized. The image processor can be configured with multiple sensing zones within the fluid image, and results from each zone can be compared to baseline values to enhance measurement reliability and provide early detection and alarming of process abnormalities.

## ADVANTAGES

- Provides Both A Real Time, In Flow Measurement And A Continuous Real Time View Of The Product
- Various Process Connection Sizes Available (Flanged, Tri-Clamp®, compressing fitting, Tube or NPT)
- Fully Cleanable Unit
- High Throughput
- Available In NEMA4, IP66, Explosion Proof or Flame Proof Packages
- Digital Video Storage to Customer PC / DVD or Network Drive

## FEATURES

- Ethernet Connectivity
- Real-Time In-Flow Measurement
- Solid One Piece Central Hub
- Supplied With Internal O-ring Seals
- Fused Glass Process Barriers
- Regulated Light Source Emits Cold Light To Prevent product bake-on
- Built for Automation; OPC, 4-20mA Current Loop, EXCEL spreadsheet and Relay Outputs Are Available

## COMMON APPLICATIONS

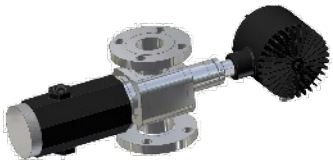
- Oil in Water
- Turbidity
- Color/Opacity
- Waste Water
- Centrifuge Discharge
- Percent Solids
- Membrane Filtration
- Water In Oil
- Many, many more

CANTY
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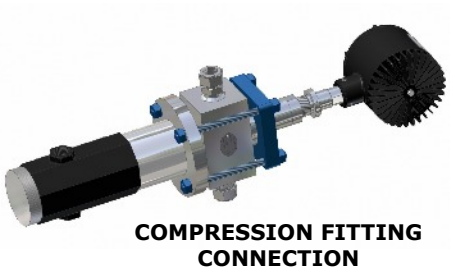
# MOUNTING CONECTIONS



**FLANGE CONNECTION**

**TRI-CLAMP® CONNECTION**

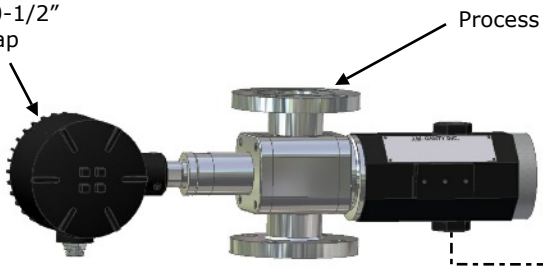




**COMPRESSION FITTING CONNECTION**

Canty Light - Provides optimal backlighting with variable 0-1/2" [12.7mm] measurement gap

**TYPICAL PACKAGE**




Notes:
1. Camera and Light PSUs are not shown but must be located within 100 feet of the unit. The Camera Power Supply enclosure has the same environmental rating as the system.
2. CantyVisionClient™ Software is included but the customer provides the PC which is not included with the system. Reference Document TA10592-1 for computer requirements.

# ORDERING INFORMATION

HOW TO ORDER: Select the appropriate symbols and build a part number as shown:

**EXAMPLE: V P 1 C 1 1 1 A A 1 V**

**APPLICATION**

| | |
|---|---|
| T - | Turbidity |
| C - | Color Analysis |
| P - | Percent Solids |

**CONNECTION TYPE**

| | |
|---|---|
| A - | Tri Clamp® |
| B - | Compression Fitting |
| C - | Flange (ANSI/DIN) |
| D - | Tube Diameter |
| E - | NPT (Female) |

**CONNECTION SIZE**

| | | | |
|---|---|---|---|
| 0 - | 1/2" (12.7mm) | 3 - | 3" (80mm) |
| 7 - | 3/4" (19mm) | 4 - | 4" (100mm) |
| 1 - | 1" (25mm) | 6 - | 6" (150mm) |
| 5 - | 1.5" (38mm) | 8 - | 8" (200mm) |
| 2 - | 2" (50mm) | | |

**WETTED METAL MATERIAL**

| | |
|---|---|
| 1 - | 316L Stainless Steel |
| 2 - | Hastelloy® C276 or equal |
| 3 - | Hastelloy® C-22® or equal |

**INTERNAL SEAL MATERIAL**

| | | | |
|---|---|---|---|
| B - | BUNA | N - | NEOPRENE |
| V - | VITON® | K - | KALREZ® |
| S - | SILICONE | C - | CHEMREZ® |
| E - | EPDM | | |

**ENVIRONMENTAL RATING**

| | |
|---|---|
| 1 - | NEMA 4 WEATHERPROOF |
| 2 - | IP 66 |
| 3 - | EXPLOSION PROOF |
| 4 - | FLAME PROOF |

**ANSI OR DIN PRESSURE RATING / FLANGE PATTERN**

| ANSI | | DIN | |
|---|---|---|---|
| A - | 150 PSI | D - | 10 BAR |
| B - | 300 PSI | E - | 16 BAR |
| C - | 600 PSI | F - | 25 BAR |

**INPUT POWER**

| | |
|---|---|
| A - | 120 V AC / 60Hz / 250W |
| B - | 230 V AC / 50Hz / 250W |
| 2 - | 24 V DC |

**NON-WETTED METAL MATERIAL(PRESSURE BEARING)**

| | |
|---|---|
| 0 - | Carbon Steel |
| 1 - | 300 Series Stainless Steel |

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