

Data Sheet

J. M. CANTY INFLOW™

Oil In Water Analysis



Supplied by

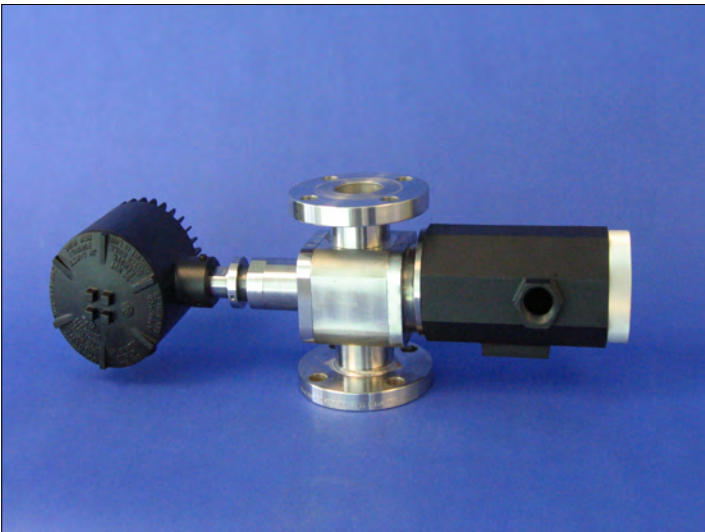
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CANTY

PROCESS TECHNOLOGY

INFLOW™ - OIL IN WATER ANALYSIS



OIL IN WATER

The CANTY Inflow™ is an excellent tool for oil environments to determine concentration, particle size and count of oil droplets. The solids in the system can be analyzed as well by the Inflow™.

THE CANTY ADVANTAGE

The CANTY Inflow™ is a vision-based camera system used with the CANTY Vector System image processor for oil in water concentration and size measurement in a lab environment / at-line / in-line process. The CantyVision™ Software accurately measures multiple aspects of the OiW from oil / solids / gas independent of each other for accurate data. In comparison to a florescence monitor, which measures only oil and is affected by solids and gas in the stream, the CantyVision™ software can identify the differences and the customer can visually verify the readings. The Inflow™ can be calibrated with the customer's current lab method to make for easy installation in the field. Determining PPM on the inlet and outlet of a separator will help optimize the skid. By providing droplet size the produced water skid will now know exactly how to separate the oil since the skid's separation methods are mostly based on size. Also, the chemical companies will know if the chemicals they are injecting are agglomerating the oil, instead of having to wait to see if the skid is able to lower the PPM value. Video recording is an option for later analysis. In-line analysis makes sure production samples are not skipped over due to lack of sample time available!

FEATURES

- PPM / PPB Values
- Particle Size Distribution Of Oil / Sand
- 10 ft/s Flow Velocity
- Real Time Analysis
- Easy To Use For Operators And Lab
- Multiple Line Size Available
- Eliminate Errors Associated With Florescence
- Reduce Analysis Wait Time For Operators
- Particle Size .7 Microns And Greater
- Visual Verification
- Complete Skid Mount Design
- Data Can Be Stored With Images Or Video
- All Data Is Stored On Excel Or In A Database For Later Use And Easy Storage
- Settings Used For Each Sample Can Be Saved So System Setup Is Repeatable
- **NOT AFFECTED BY GAS OR SOLIDS**

APPLICATIONS

- Produced Water
- Effluent Water
- Waterflood / Water for Injection
- Separators / Hydrocyclones / Filters
- Lab / At-Line / In-Line
- Replaces Existing Florescence Units
- Oil Gas / Chemical
- Many, many more!

BENEFITS

- Variable Size available From 1/2" - 10" not just 1/8" Slip Stream That Plugs
- Reading Independent Of Gas Solids
- Record Video For Later Analysis
- Optional Save Video Images If Needed
- **Gallons per Minute Flow Rates**

SPECIFICATIONS

- Power: 120 VAC / 60 Hz (230 VAC / 50 Hz)
- Ethernet Camera Resolution

ANALYSIS WITH CANTYVISION

- CantyVision™ System Can Measure And Control Your Process Parameters
- Inflow™ Systems Use A live Video Data
- CantyVision™ Can Perform Concentration / Particle Size / Count Functions
- Microsoft Windows Based Operating System
- Ethernet OPC or 4-20 mA Devices

CANTY Buffalo, NY USA
Ph: (716) 625 4227

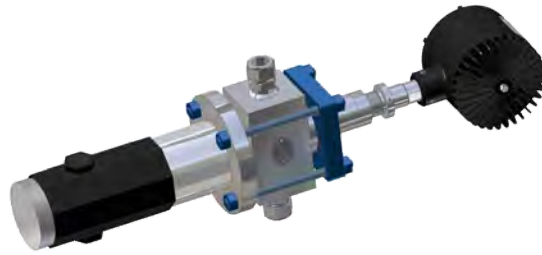
Dublin, Ireland
Ph: + 353 (01) 882 9621

Phuket, Thailand
Ph: + 66 (83) 968 9548

MOUNTING CONNECTIONS



FLANGE CONNECTION



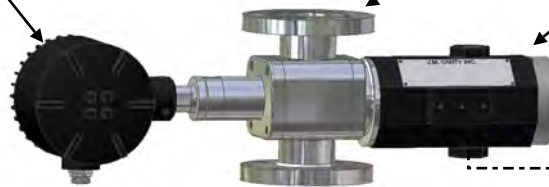
SWAGELOK® CONNECTION

TYPICAL PACKAGE

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

Process Connection

Ethernet Vision System for product measurement



Ethernet Network Connectivity

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 :

EXAMPLE:

V O 6 C 1 1 1 A A 1 V

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J. M. CANTY INFLOW™

Particle Sizing System



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PROCESS TECHNOLOGY

INFLOW™ PARTICLE ANALYZER

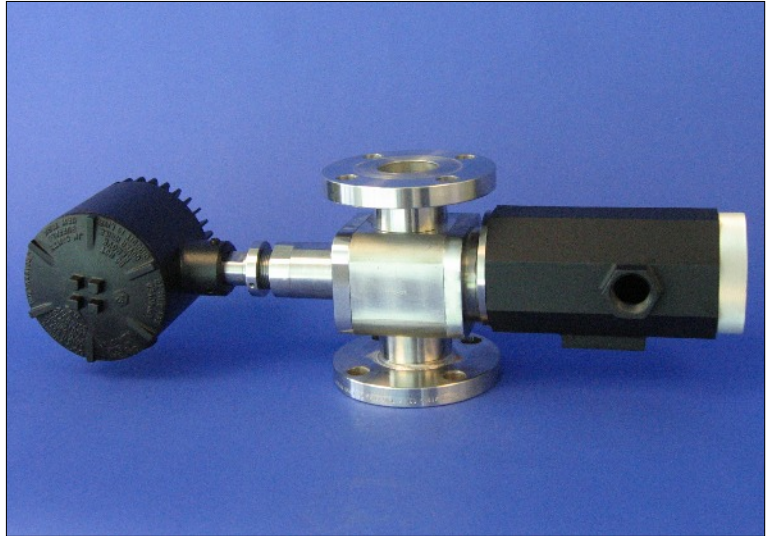
Combining the latest in Ethernet technology with Canty fused glass, lighting and CANTYVISIONCLIENT™ software, the INFLOW™ Process Particle Analyzer provides real time particle size and shape analysis. Various models measure 0.7 micron - 20,000 micron particles under process conditions.

No sampling or lab analysis is required! Each unit can be fully integrated into existing TCP/IP networks. Some systems may require a side stream to control flow rates.

CANTYVISIONCLIENT™ software is installed on a user-supplied PC, and connected to the INFLOW™ measurement system via Gigabit Ethernet network. Live images of the process can be viewed from any networked PC. The live images are remotely analyzed by CANTYVISIONCLIENT™ software. A comprehensive library of standard utilities and data functions provide a multitude of *real-time* process information.

The CANTY INFLOW™ Fluid Particle Sizing System uses a 0-1/2" variable insertion measurement gap.

This insertion is made possible by the Fuseview™ sight glass, which allows the optical fused pieces to be located in the center of the fluid stream, which is unique to the Canty system. The fused glass seal contains no gaskets, ledges, or steps allowing the highest velocity, representative sample and keeps the sensor clean, even in the harshest of environments (polymer, crude oil, drilling mud, epoxy, etc.). The fused glass seal location keeps the sensor in line with the process temperature to avoid the product build up due to thermal change. The image processor can be configured with multiple zone sensing on the image of the fluid. The results from the zones can be compared to base line values for reliability and alarm on detection of a problem. The setup is first verified in the lab with the Canty MICROFLOW™, which is an optically identical unit.

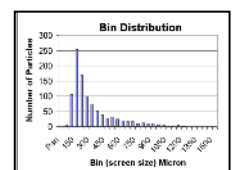
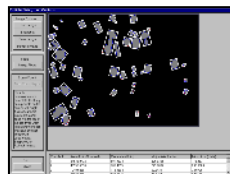
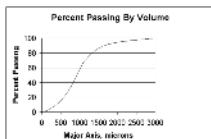


FEATURES

- 0.7 micron - 20,000 micron Particle Size Options. See Part Number.
- Gigabit Ethernet Connectivity
- Real Time Monitoring Of Process In Flow
- Supplied With Internal O-ring Seals
- Easily Installed Modular Unit
- Fused Glass Process Barriers
- Regulated Light Source Emits Cold Light To Prevent Product Bake-On
- OPC, 4-20mA Current Loop, EXCEL spreadsheet and Relay Outputs Are Available

BENEFITS

- 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®, Compression 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



PARTICLE SIZE ANALYSIS

- Replaces and Correlates to Screen Analysis
- Distribution By Major, Minor Diameter
- Visually Verifiable Results Via Live Images
- Particle Area
- Histogram Distributions - Bin Size
- Percent Passing by Volume vs. Size
- Particle Perimeter
- Full EXCEL datalogging
- Many Library Functions

CANTY

M Canty Inc
M Canty Intl Ltd

Buffalo, NY USA
Dublin, Ireland

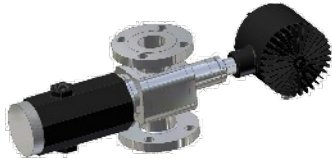
Ph: (716) 625 4227
Ph: +353 (01) 882 9621

Fax: (716) 625 4228
Fax: +353 (01) 882 9622

www.jmcanty.com

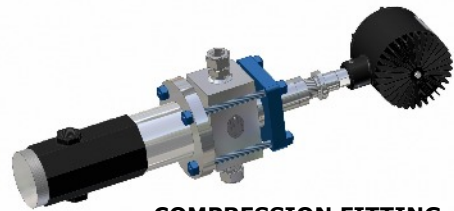
Document P/N: TA10601-1 REV. 9

MOUNTING CONNECTIONS



FLANGE CONNECTION

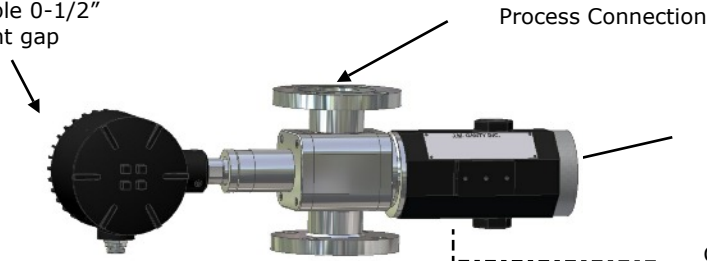
TRI-CLAMP® CONNECTION



COMPRESSION FITTING CONNECTION

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

TYPICAL PACKAGE



Gigabit Ethernet Vision System for product measurement

Gigabit Ethernet Network Connectivity

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.
3. Small gap sizes used with samples that do not stay uniformly distributed may require verification of the data with a Canty MicroFlow™.

Ordering Information

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

EXAMPLE:

V S 6 C 1 1 1 A A 1 V

APPLICATION	
S -	In Line Particle Sizing

PARTICLE SIZE RANGE		
	Field of View (mm)	P.S. Measure (micron)
1 -	10.7 x 8	33 - 2200
2 -	16 x 12	50 - 3200
3 -	26 x 18	80 - 4800
4 -	3 x 2.2	9 - 600
5 -	6 x 4.4	18 - 1200
6 -	.3 x .24 (Max Zoom) - 2 x 1.7 (Min Zoom)	.7 - 480

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 -	CHEMRAZ®
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

Consult Factory for pressure rating up to 10,000 PSI

INPUT POWER	
A -	120 V AC / 60Hz
B -	230 V AC / 50Hz
2 -	24 V DC

NON-WETTED METAL MATERIAL(PRESSURE BEARING)	
0 -	Carbon Steel
1 -	300 Series Stainless Steel

CANTY

M Canty Inc
M Canty Intl Ltd

Buffalo, NY USA
Dublin, Ireland

Ph: (716) 625 4227
Ph: +353 (01) 882 9621

Fax: (716) 625 4228
Fax: +353 (01) 882 9622

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J. M. CANTY INFLOW™ TURBIDITY

COLOR ANALYSIS / PERCENT SOLIDS MEASUREMENT SYSTEMS



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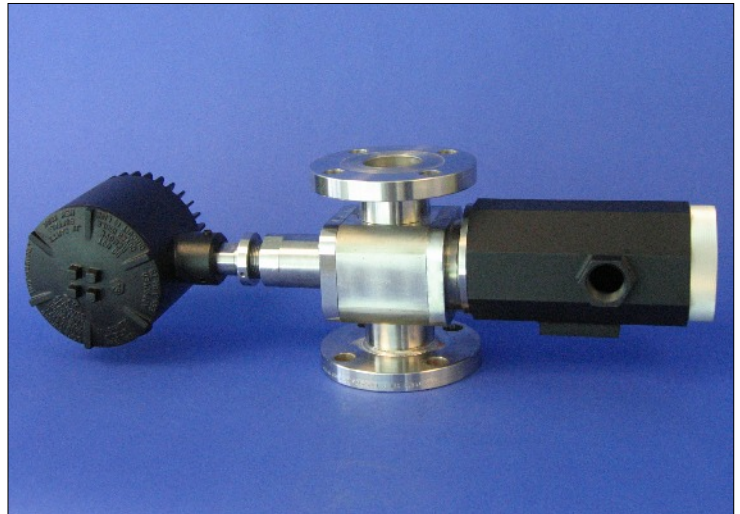
CANTY

PROCESS TECHNOLOGY

INFLOW™ TURBIDITY / COLOR ANALYSIS / PERCENT SOLIDS MEASUREMENT SYSTEMS

Combining the latest in CCD Ethernet camera technology with Canty fused glass, lighting and CANTYVISIONCLIENT™ software, the INFLOW™ Measurement System provides real time In Flow measurement of Turbidity, Color Analysis or Percent Solids, determined by the part number selected.

No sampling or lab analysis is required! Each unit can be fully integrated into existing TCP/IP networks. CANTYVISIONCLIENT™ software is installed on a user-supplied PC, and connected to the INFLOW™ measurement system via an Ethernet network. Images of the process can be viewed from any networked PC. The live images are remotely analyzed by CANTYVISIONCLIENT™ software. A comprehensive library of standard utilities and data functions provide a multitude of *real-time* process information.



The CANTY INFLOW™ Turbidity, Color Measurement or Percent Solids Measurement System uses a 0-1/2" variable insertion measurement gap. This insertion is made possible by the Fuseview™ sight glass, which allows the optical fused pieces to be located in the center of the fluid stream, which is unique to the Canty system. The fused glass seal contains no gaskets, ledges, or steps allowing the highest velocity, representative sample and keeps the sensor clean, even in the harshest of environments (polymer, crude oil, drilling mud, epoxy, etc.). The fused glass seal location keeps the sensor in line with the process temperature to avoid product build up due to thermal change. The image processor can be configured with multiple zone sensing on the image of the fluid. The results from the zones can be compared to base line values for reliability and alarm on detection of a problem.

FEATURES

- Ethernet Connectivity
- Real Time Monitoring Of Process In Flow
- Solid One Piece Central Hub
- Supplied With Internal O-ring Seals
- Easily Installed Modular Unit
- Fused Glass Process Barriers
- Regulated Light Source Emits Cold Light To Prevent Product Bake-On
- OPC, 4-20mA Current Loop, EXCEL spreadsheet and Relay Outputs Are Available

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

COMMON APPLICATIONS

- | | | |
|--|---|---|
| <ul style="list-style-type: none">• Oil in Water• Turbidity• Color/Opacity | <ul style="list-style-type: none">• Waste Water• Centrifuge Discharge• Percent Solids | <ul style="list-style-type: none">• Membrane Filtration• Water In Oil• Many, many more. |
|--|---|---|

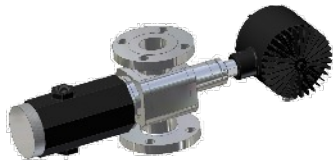
CANTY

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MOUNTING CONNECTIONS



FLANGE CONNECTION

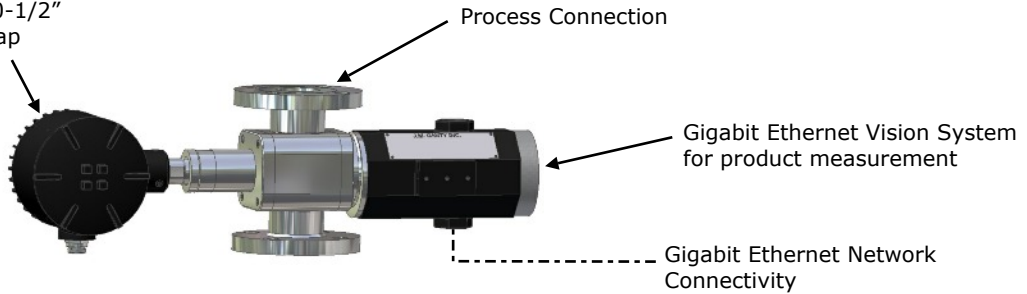
TRI-CLAMP® CONNECTION



COMPRESSION FITTING CONNECTION

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Ordering Information

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

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)
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WETTED METAL MATERIAL	
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2 -	Hastelloy® C276 or equal
3 -	Hastelloy® C-22® or equal

INTERNAL SEAL MATERIAL			
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ENVIRONMENTAL RATING	
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2 -	IP 66
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ANSI OR DIN PRESSURE RATING / FLANGE PATTERN			
ANSI	DIN		
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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
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Ph: (716) 625 4227

Dublin, Ireland
Ph: + 353 (01) 882 9621

Phuket, Thailand
Ph: + 66 (83) 968 9548