CANTY

PROCESS TECHNOLOGY

CAMERA SYSTEMS

FM APPROVED

CSA

Ex

HOW IT WORKS

CANTY cameras are patented systems designed to illuminate and view inside a pressure or process vessel through a single connection. There is no need for multiple vessel ports. CANTY supplies an integrally mounted camera and lighting system in a connection as small as a 2" connection. The Ethernet video output can be   displayed on a computer in the comforts of a control room, or recorded on any DVR or hard drive. Various software capabilities are available to allow for control and alarm options.

CANTY LED LIGHTS MAKE IT POSSIBLE

The key to CANTY Camera/Light combination   systems is the CANTY LED light. CANTY uses fiber optic light guides to focus cool, effective LED light into a process vessel or area.   Cool light eliminates product bake-over on the viewing window. Fiber optic light guides have been specifically designed to work in conjunction with cool light to maximize the light transmission into the vessel.   The resulting live, remote video image from this illumination is unparalleled!

THE COMPLETE PACKAGE

CANTY can meet all your needs! Included as   standard equipment on every camera system are power supplies, a high resolution Ethernet camera, pre-focused lens and WP, IP66, explosion proof or flame proof enclosure. What's more – all wiring and maintenance are external. Recording and control options are available. Cameras can be easily integrated with our Vector Control Module (VCM) with CantyVision™ software for various process measuring and control functions such as non-contact level control, particle sizing, etc. Please consult the factory for details.

APPLICATIONS

- Polymers – Verify empty, monitor level
- Crystallizers – Liquid and foam level
- Fermentors – Liquid and foam level
- High purity pharmaceutical applications
- Toxic Material – Remote viewing
- Foam and Fluid Level monitoring in:
Shredders	Hoppers
Nutsche Filters	Latex Applications
Strippers	Pressure Vessels

FEATURES

- FM, CSA, IECEx and ATEX approvals on various models. World wide approvals!
- 10,000 PSI ratings are available
- Alternative models available up to 2000° F
- 2" NPT, 2" flange and larger, 3" Tri-Clamp® and larger connections are available. Consult factory for other available connections.
- High resolution CCD cameras - gigabit Ethernet output.
- Remotely view your process from the comforts of a control room
- Single nozzle viewing/illuminating (with light)
- Remote light dimming options
- Spray rings are available to keep your window clean

SPECIFICATIONS

CCD Sensor:	½" format. 811(H) x 508(V) typ.
Sensitivity:	Available from .0001 lux usable picture (low light B&W). 0.1 lux is typical (color). Varies with model.
Video Output:	1.0 V p-p, 75Ω typ.(analog) or Ethernet options.
Ambient Temp:	-30°C to 50°C (Consult factory additional temperature needs)
Current Req.:	500 mA typical
Cable:	Cat6 Ethernet (Ethernet Models), RG 59/U 75Ω coaxial cable Suitable CCTV applications analog)
Environmental ratings:	NEMA 4, IP66, Explosion proof (Class 1, Div. 1, Groups B, C & D, Class II, Div. 1, Groups E, F & G) or Flameproof EEx d IIC T6

OPTIONS

- Level/foam control, volume control, in-line particle sizing, color analysis
- Time/date generators – overlay time and date stamp onto video picture
- Data overlay – overlay pH, temp, pressure, etc. onto video picture
- Various output options - 4-20mA output module available, output via OPC.

CANTY

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TYPICAL 3" [80mm] AND LARGER FLANGE MOUNT WITH INSERTION

Ø 5.5" Typical [140 mm]
4.0" Typ. [102 mm]
23.5" [643 mm]
5.25" [133 mm]
Ø 2.0" Typical [51 mm]

2" FLANGE INSERTION WITH INTEGRAL JET SPRAY RING

27.8" [706 mm]
Ø 1.88" [48 mm]

TYPICAL TRI-CLAMP® MOUNT

19.6" [497 mm]

TYPICAL FLANGE MOUNT

18.1" [460 mm]

Note: For cameras only (no light) subtract 8.25" from O.A.L. of camera/light combos shown above
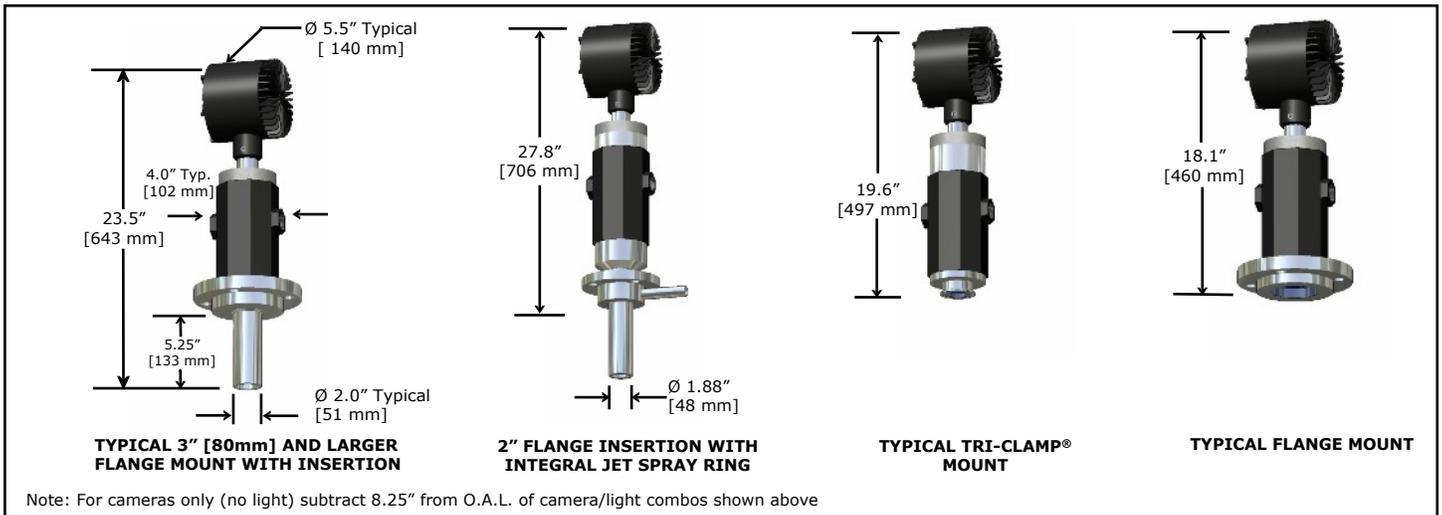
Ordering Information

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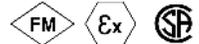
EXAMPLE:

V 6 E 2 1 B D 1 J

VISION SYSTEM
V - North American standard
VE - European standard

ENVIRONMENTAL RATINGS
6 - NEMA 4 weather proof, IP66
7 - Explosion proof (US) or Flame proof (Europe)

CAMERA OPTIONS
E - Ethernet Video color camera
(Note: Please contact CANTY for analog video options)

LENS OPTIONS
(Note: Some lenses are not available with certain mounting connections. Consult your binder for details)
2 - 56° (H) x 43° (V) x 69° (D)
3 - 69° (H) x 53° (V) x 80° (D)
6 - 41° (H) x 31° (V) x 50° (D)

CAMERA POWER SUPPLY OPTIONS
1 - User supplies 120 V AC. Power supply in a non WP or EXP enclosure. User provides enclosure and switch as needed.
2 - No power supply required.
5 - User supplies 120 V AC. Power supply in a WP enclosure.
6 - User supplies 240 V AC. Power supply in an IP/WP enclosure.
7 - User supplies 120 V AC. Power supply in an EXP enclosure. PSU enclosure is rated Class I, Div 1, Groups C & D.
8 - User supplies 240 V AC. Power supply in non WP or FP enclosure. User provides enclosure and switch as needed.

WETTED MATERIAL OPTION
B - 316 L Stainless Steel*
D - Hastelloy® C-276 or equal
E - Hastelloy® C-22® or equal
F - Glass (BoroPlus™)**

*Canty reserves the right to upgrade to Hastelloy® C family of alloys or equal at their own cost
** Not available with all models

LIGHT OPTIONS
G - HYL 80 1SRDO (240 V)
J - HYL 80 1SRDO (120 V)
N - Camera only - will not accept an integral light
0 - Combo w/o light - will accept an existing light (Note: Without a light source the camera cannot maintain WP or EXP integrity)

NON WETTED MATERIAL
0 - No flange required (if selecting a flanged model). Select this option when choosing NPT or Tri-Clamp® models also.
1 - 150 # carbon steel ANSI flange
2 - 150 # 316L stainless steel ANSI flange
3 - 300 # carbon steel ANSI flange
4 - 300 # 316L stainless steel ANSI flange
6 - 16 Bar carbon steel DIN flange
7 - 16 Bar stainless steel DIN flange
8 - 10 Bar carbon steel DIN flange
9 - 10 Bar stainless steel DIN flange

MOUNTING CONNECTION
Consult factory for additional sizes and ratings.
B - 2" NPT, 5.25" insertion
C - 3" ANSI flange
D - 4" ANSI flange
E - 2" ANSI flange
F - 3" ANSI flange, 5.25" insertion
G - 100 mm DIN flange
H - 4" ANSI flange, 5.25" insertion
J - 100 mm DIN flange, 5.25" insertion
K - 2" ANSI flange, 5.25" insertion
M - 3" Tri-Clamp® 5.25" insertion
P - 4" Tri-Clamp® 5.25" insertion
Q - 80 mm DIN flange
S - 80 mm DIN flange, 5.25" insertion
T - 2" ANSI flange, 5.25" insertion w/integral spray ring
U - 4" Tri-Clamp®
3 - 3" Tri-Clamp®
5 - 6" ANSI flange, 5.25" insertion