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## **PROCESS TECHNOLOGY**

# HIGHTEMP™ PROCESS CAMERA - MOLTEN GLASS LEVEL



#### **APPLICATION INFORMATION**

The CANTY system consists of a high temperature Ethernet process camera and incorporates unique software to reduce glare along with a unique orifice plate that eliminates any debris from adhering to the lens, offering a clear view of the molten level at all times. Level measurements are made in real-time on a continuous basis, with a resolution of 0.001" (see chart). CANTYVISION™ Software utilizes image based technology to continually track the edge. The software uses a line with a dot-tracking edge to continually indicate the position of the edge and a numerical output is given. This new low cost, no-maintenance system replaces expensive traditional platinum dipper probe systems which tend to coat over in a matter of weeks as well as nuclear gauges and eliminates the need for stilling What's more, your results are visually wells. verifiable on your local area network or localized computer! 4-20 mA current loop available.





\*Please request layout worksheet TA11500-1070 to select the proper model.

#### THE CANTY ADVANTAGE

• Imaging is an order of magnitude more accurate than nuclear level measurement.

• Imaging is less costly than both nuclear and laser due to the fact that it has less of a maintenance cost and avoids the cost of having an on-site nuclear source and specialist.

• Imaging is significantly easier to support and install with much less infrastructure than nuclear and laser measurement.

• Imaging is a direct measurement with a one-time calibration as well as taking instantaneous and time-averaged readings.

#### **MECHANICAL / ELECTRICAL**

Ph: + 353 (01) 882 9621

| Size:           | See dimensional info drawing.  |  |
|-----------------|--|--|
| Weight:         | Approximately 10 lbs.  |  |
| Mounting:       | Quick-connect mounting bracket, see drawing VD11930-110.   |  |
| Ratings:        | Available in NEMA 4, IP66.   |  |
| Temperature:    | 0°F to 200°F ambient typical.<br>Ratings to 2000°F (process) are available<br>on certain models. |  |
| Cabling:        | Consult factory for details.<br>CAT 6 Ethernet cable, RJ-45 termination                          |  |
| Power Req.:     | Cameras are power over Ethernet (POE)  |  |
| Dublin, Ireland | Phuket, Thailand   |  |

Ph: + 66 (83) 968 9548

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#### TECHNICAL INFORMATION





| Narrow Range                |                |               |       |  |  |  |
|-----------------------------|----------------|---------------|-------|--|--|--|
| Wall to Wall<br>Distance of | Accuracy: Sta  | Max Height    |       |  |  |  |
| Furnace (ft.)               | Inches         | Microns       | (in.) |  |  |  |
| 1                           | .0016 / .00016 | 40.6 / 4.06   | ±1.65 |  |  |  |
| 5                           | .0029 / .00029 | 73.6 / 7.36   | ±2.96 |  |  |  |
| 10                          | .0045 / .00045 | 114.3 / 11.43 | ±4.63 |  |  |  |
|                             |                |               |       |  |  |  |

| V | G- | E3 | Δ | 1 | 1 |  |
|---|----|----|---|---|---|--|

Includes narrow range camera with air-cooled aluminum housing, with mounting bracket & orifice plate to keep view clean as well as serve as a temperature barrier.

| Broad Range                 |                |               |       |  |  |  |
|-----------------------------|----------------|---------------|-------|--|--|--|
| Wall to Wall<br>Distance of | Accuracy: St   | Max Height    |       |  |  |  |
| Furnace (ft.)               | Inches         | Microns       | (in.) |  |  |  |
| 1                           | .0031 / .00031 | 78.7 / 7.87   | ±3.21 |  |  |  |
| 5                           | .0056 / .00056 | 142.2 / 14.22 | ±5.79 |  |  |  |
| 10                          | .0088 / .00088 | 223.5 / 22.35 | ±9.08 |  |  |  |

## VG-E7A11

Includes broad range camera with air-cooled aluminum housing, with mounting bracket & orifice plate to keep view clean as well as serve as a temperature barrier.



Water

Cooled

Packages

Air Cooled

Packages

#### VG-E3W22

Includes narrow range camera with water-cooled aluminum housing, with mounting bracket & orifice plate to keep view clean as well as serve as a temperature barrier.

## VG-E7W22

Includes broad range camera with water-cooled aluminum housing, with mounting bracket & orifice plate to keep view clean as well as serve as a temperature barrier.

REFERENCES: Reference IOM manual TA. All models are POE. \*SE = signal enhanced, please consult factory for additional information. Ref. Document TA11500-1070 for installation layout worksheet.

#### DELIVERABLES:

CANTY Provides: - Weatherproof Camera System with Weatherproof RJ45 Connector Receptacle (Female) and Mating Connector for termination of customer supplied CAT 6 Ethernet cable.

- Adjustable Mounting Stand, reference drawing VD11930-110 for mounting bracket details.
- Vector Control Module- Each camera ordered must be connected to a Canty Vector Control Module (VCM), ordered separately (see below)

## Customer Provides: - CAT 6 Ethernet cable for use from the VCM to the weatherproof connector on the camera (maximum of 300 feet distance, for further distances consult factory)

- Power to the Vector Control Module, 24V DC, 120V AC or 230V AC based on model purchased.
- Customer to supply air or water based on model selected in accordance with manual specification.



CantyVision software is hosted on a Vector Control Module (VCM), ordered separately. VCMs are dedicated image processors that analyze the video provided by Canty cameras and convert the information into outputs. A single VCM can support up to 6 cameras for analysis, model dependent. The operator screen

makes for simple, accurate, real time visual verification. The VCM has OPC or 4-20mA outputs to a PLC or DCS for complete control. The VCM comes with the ability to have full administration controlled passwords and permissions. This cost effective system has a compact design with a customizable screen and an easy setup. The VCM can connect wirelessly to the internet, allowing remote desktop support that can be accessed by the CANTY support team to assist with setup, questions, analysis, etc. For additional information on what VCM is right for you, refer to document TA12100-1012.



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