



vision  
without  
limits

**Vector Control  
Module**

# **CANTY**

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## **PROCESS TECHNOLOGY**

**BUFFALO**

**DUBLIN**

**THAILAND**

## What is a VCM?

Vector Control Modules (VCM's) are processors to interface with and analyze images from camera systems sold by CANTY that come in three main lines: The Extreme Performance model is a powerful, solid state, fan-less processor able to work in dirty, harsh environments. The VCM LTE is a less powerful version of the Extreme Performance model, but still solid state and fan-less allowing it to work in harsh environments. Lastly, the Rack Mount model is equally powerful to the Extreme Performance, but it includes fans and is intended to fit into a standard rack in a controlled environment with your other electronics.

VCM's are designed to keep project cost low and eliminate the need to spec out and purchase your own separate computer. These machines can be ordered with a variety of outputs including analog (4-20mA), OPC UA, Modbus, and DO's, which allow them to communicate effectively with a PLC or DCS system. Each VCM comes with the ability to hook up to a Wi-Fi or hardwired network to provide Internet and/or remote access. Quick access to CANTY's technical support is available from the press of a button on the embedded operator account's main screen if the VCM is connected to the Internet. CANTY's support team can also be reached easily via phone or email with multiple locations globally to minimize down time.



## Features

- Supports up to 6 Cameras (Application Dependent)
- High Speed Analysis
- Easy to install and use
- Fanless or rack mount options
- Windows 10 Embedded
- CANTYVISION™ software installed

## Technical Information

VCM's allow for up to six individual CANTY camera systems to be controlled at once. VCM's are optimized and fully tested with the latest CANTYVISION™ software and incorporate options for analog, digital, OPC and Modbus data outputs. Each VCM comes from CANTY fully configured for easy plug and play operation. Systems come preset to auto start to a custom operators interface which allows for control of multiple CANTY cameras for multiple applications. Windows 10 Enterprise OS provides a secure and easy connection to local networks.

## Cyber Security

VCM's come with Windows Defender updated with the latest virus definitions. Windows Defender protects users against viruses and spyware. Windows Firewall is also set up on all new systems. VCM's come with multiple user accounts giving variable levels of access. Systems start up automatically to an operator account which is locked down so that only CANTY software and data outputs can be accessed. Higher level accounts like User Admin allow the customer to change system settings and allow for networking systems to a customer's network provided the user has adequate privileges.



# ADDITIONAL INFORMATION

## Software Information

All of our VCM's come with software pre-installed and are ready to interface with CANTY cameras out of the box. The operator account makes it simple for operators to see what is going on in your process in real-time with visual verification. The software loaded onto the VCM's have administrative passwords and permissions allowing for complete control over your analysis.



Please note: All cameras must be configured such that there is a direct cat6E or greater Ethernet connection between the camera and the VCM. All cameras cannot be run through additional hardware such as a switch or hub. The Ethernet run between a camera and a VCM cannot be longer than 100m. For longer distances, Canty has available for purchase fiber converters that are rated for a variety of environmental classifications. See TA11950-1024 for details on the fiber converters.

# MODEL SELECTIONS - Rackmount VCM



## Why Select a Rackmount VCM?

- Fits into standard rack which allows for easy and organized storage
- The fan cooling of the rackmount model allows for it to have the fastest processor of all VCMs leading to the fastest analysis speeds
- RACK MOUNT models are designed for non-industrial environments with air conditioning and clean, filtered air.
- Supports up to 6 cameras

## Specifications

- Input Power: 100-240 VAC 50/60 Hz
- Display Options: HDMI, Displayport, DVI
- Physical Dimensions: 15.35" (D) X 19.10" (W) X 5.25" (H) (3U rack)
- All Rackmount VCMs include one LAN connection

## Standard Output Options

- Modbus TCP/IP
- ODBQ
- OPC UA (Requires purchase of NET1500-10 License)
- Profibus (Additional Hardware Purchase Required)

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMRN-004	6	2
VCMRN-005	4	2

## Optional Output Options

- Analog

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMRA-001	6	2
VCMRA-002	4	2

- Modbus RTU

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMRN-008	4	2

### ADD-ON COMPONENTS

Part Number	Features
VCM-AK-001	MONITOR, KEYBOARD & MOUSE KIT
NET1500-10	OPC-UA LICENSE



# LAYOUT DRAWING - Rackmount VCM

## VCMRN

**VCMRN-004** - Support up to 6 cameras **or** 2 analyzers

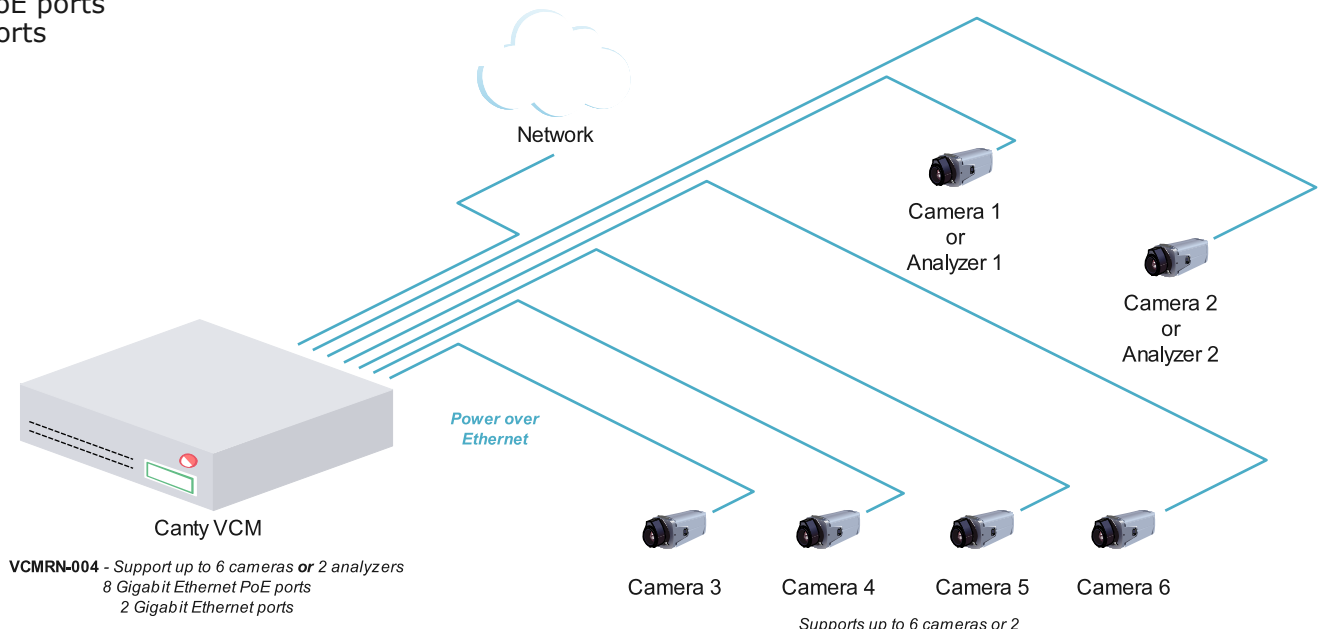
8 Gigabit Ethernet PoE ports

2 Gigabit Ethernet ports

**VCMRN-005** - Support up to 4 cameras **or** 2 analyzers

4 Gigabit Ethernet PoE ports

2 Gigabit Ethernet ports



## VCMRA

**VCMRA-001** - Support up to 6 cameras **or** 2 analyzers

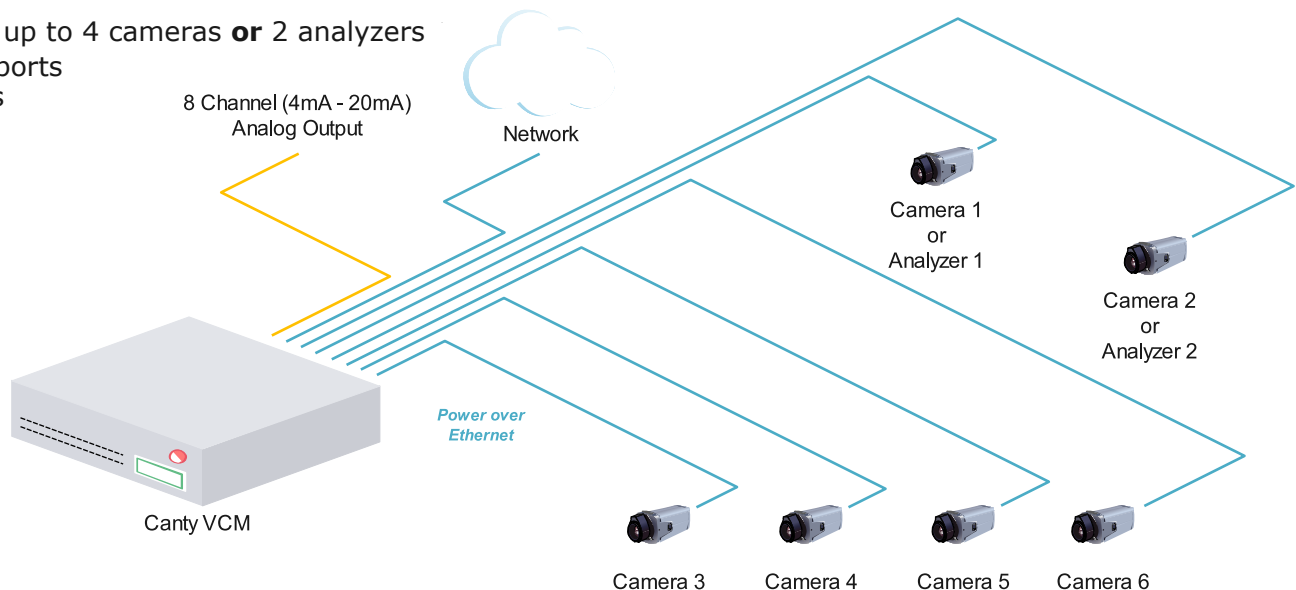
8 Gigabit Ethernet PoE ports

2 Gigabit Ethernet ports

**VCMRA-002** - Support up to 4 cameras **or** 2 analyzers

4 Gigabit Ethernet PoE ports

2 Gigabit Ethernet ports





# MODEL SELECTIONS - Extreme VCM



## Why Select an Extreme VCM?

- Smaller footprint than the rackmount model and wall mountable
- Fanless cooling allows for the unit be used in environments deemed too dusty for rackmount models making it ideal for use in harsh industrial settings
- More powerful than the LTE model
- Supports up to 6 cameras

## Specifications

- Input Power: 100-240 VAC 50/60 Hz
- Display Options: Displayport, DVI, VGA
- Physical Dimensions: 8.86" (D) X 9.45" (W) X 3.54" (H)
- All Extreme Performance VCMs contain 8 PoE & 2 non PoE ports

## Standard Output Options

- Modbus TCP/IP
- ODBQ
- OPC UA (Requires purchase of NET1500-10 License)
- Profibus (Additional Hardware Purchase Required)
- Modbus RTU

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMEN-004	6	2

## Optional Output Options

- Analog

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMEA-001	6	2

## ADD-ON COMPONENTS

Part Number	Features
VCMAK-001	MONITOR, KEYBOARD & MOUSE KIT
NET1500-10	OPC-UA LICENSE

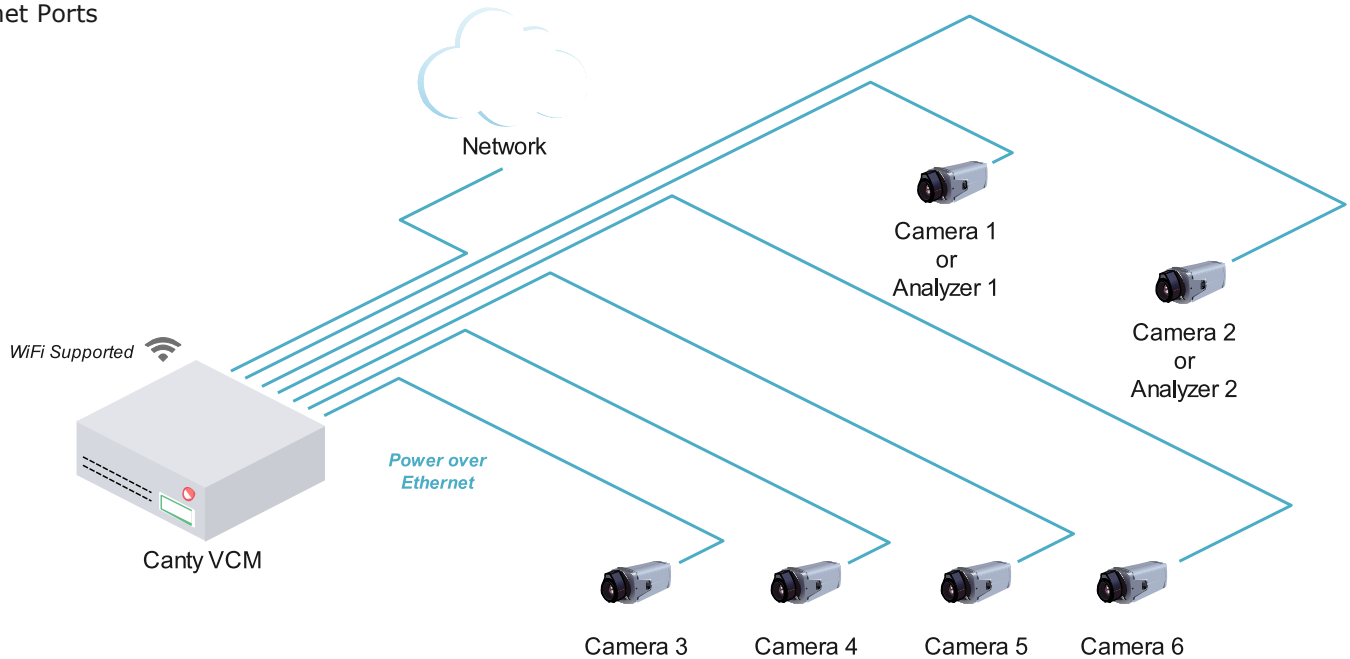


# LAYOUT DRAWING - Extreme VCM

## VCMEN

**VCMEN-004** - Support up to 6 cameras **or** 2 analyzers

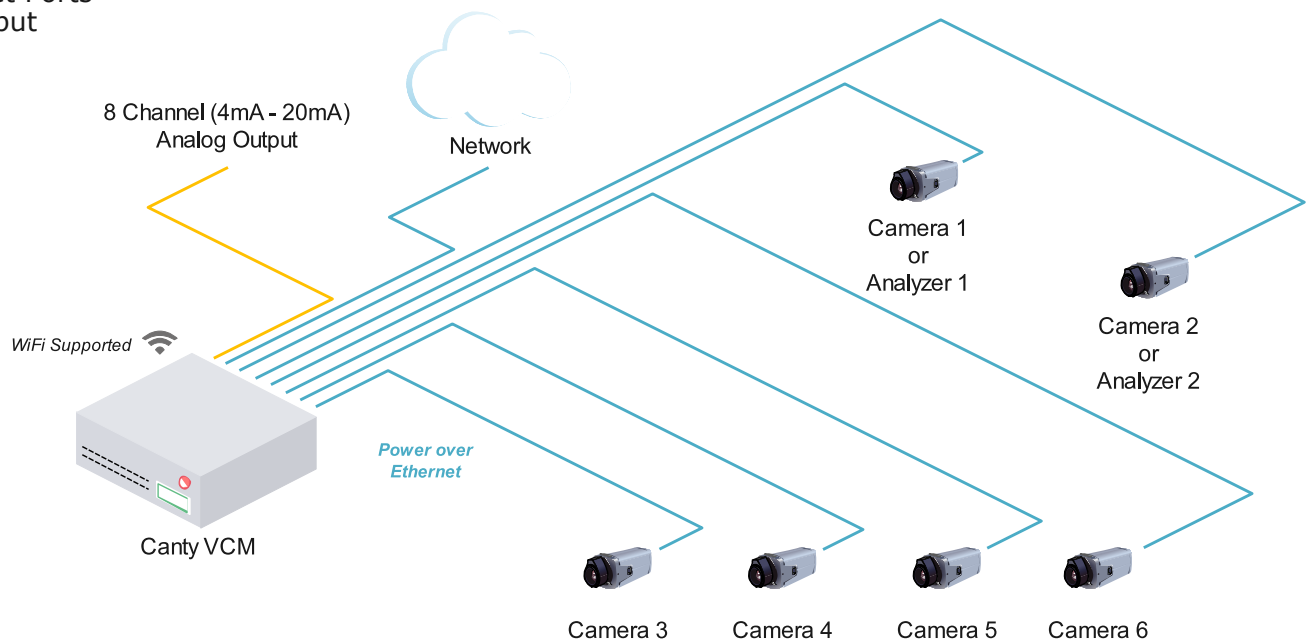
- 8 Gigabit PoE Ports
- 2 Gigabit Ethernet Ports



## VCMEA

**VCMEA-001** - Support up to 6 cameras **or** 2 analyzers

- 8 Gigabit PoE Ports
- 2 Gigabit Ethernet Ports
- 8 CH Analog Output



# MODEL SELECTIONS - LTE VCM



## Why Select an LTE VCM?

- Smallest design and din rail mountable
- Fanless cooling allows for the unit be used in environments deemed too dusty for rackmount models making it ideal for use in harsh industrial settings
- Most economical and cost effective option
- Supports 1 or 2 cameras

## Specifications

- Input Power: 100-240 VAC 50/60 Hz
- Display Options: Displayport, VGA
- Physical Dimensions: 4.55" (D) X 6.92" (W) X 2.54" (H)

## Standard Output Options

- Modbus TCP/IP
- ODBQ
- OPC UA (Requires purchase of NET1500-10 License)
- Profibus (Additional Hardware Purchase Required)
- Modbus RTU

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMLN-006	2	0
VCMLN-020	2	1

## Optional Output Options

- 4 Channel Analog

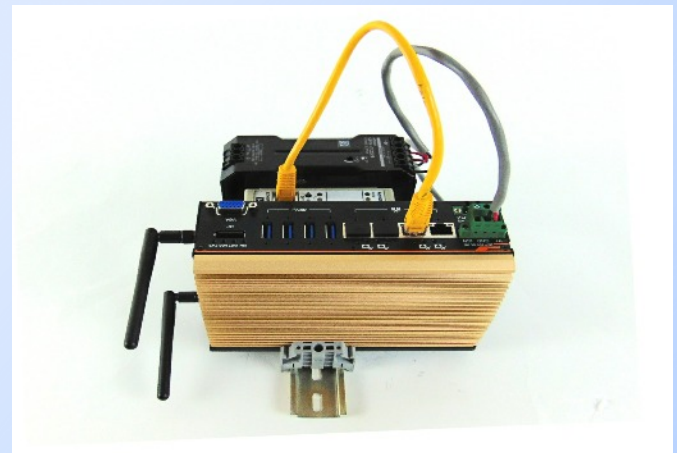
Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMLA-003	2	0
VCMLA-018	2	1

- 6 Channel

Part Number	Number of Cauty Cameras Supported	Number of Particle Analyzers Supported
VCMLA-007	2	0
VCMLA-019	2	1

### ADD-ON COMPONENTS

Part Number	Features
VCMAK-001	MONITOR, KEYBOARD & MOUSE KIT
NET1500-10	OPC-UA LICENSE



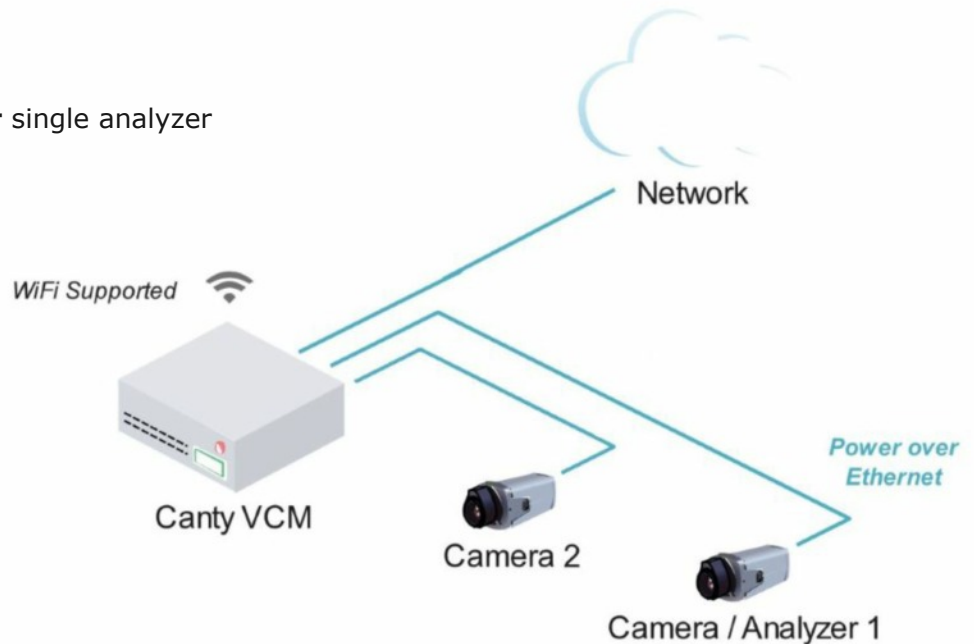
Note: VCMLN-020, VCMLA-018, and VCMLA-019 are the equivalent options of VCMLN-006, VCMLA-003, and VCMLA-007 for particle sizing applications. External Bracketed Fan is included with VCMLN-020, VCMLA-018 and VCMLA-019.



## VCMLN

**VCMLN-006** - Support for 2 cameras

**VCMLN-020** - Support for 2 cameras **or** single analyzer



## VCMLA

**VCMLA-003** - Support for 2 cameras

- 4 CH Analog Output

**VCMLA-018** - Support for 2 cameras **or** single analyzer

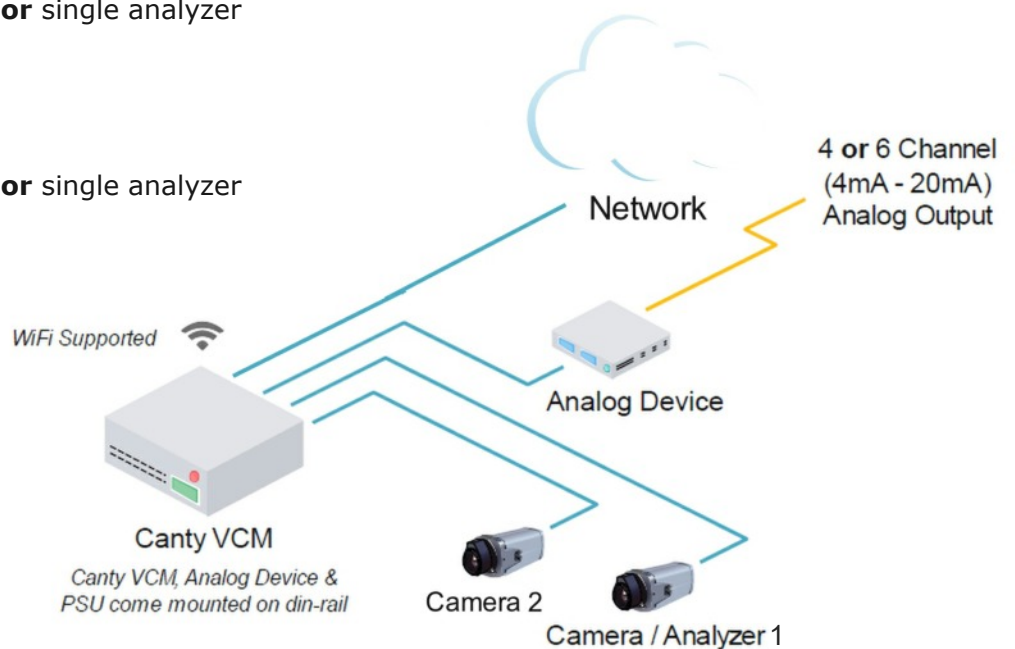
- 4 CH Analog Output

**VCMLA-007** - Support for 2 cameras

- 6 CH Analog Output

**VCMLA-019** - Support for 2 cameras **or** single analyzer

- 6 CH Analog Output



**CANTY'S GOAL IS TO PROVIDE EQUIPMENT TO ENHANCE PROCESS CONTROL  
AND YIELD. WE ACCOMPLISH THIS BY DESIGNING, MANUFACTURING, AND  
SERVICING THE FINEST EQUIPMENT IN THE WORLD.**

Some of Our Valued Customers:

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AMGEN  
ASTRAZENECA  
BAXTER INTERNATIONAL  
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COVIDIEN  
ELI LILLY & CO.  
GILEAD SCIENCES

GLAXOSMITHKLINE  
HUMAN GENOME  
JOHNSON & JOHNSON  
MALLINCKRODT  
MEDIMMUNE  
MERCK & CO.  
NOVARTIS  
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PFIZER  
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TEVA PHARMACEUTICALS

AND YOU!!!



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