

# Catalyst<sup>®</sup>



SINCE 1948  
**RACO**<sup>®</sup>  
REMOTE ALARMS AND CONTROLS

## A new era in data communications ...Introducing the world's first integrated, interactive data logging and alarm notification system

*Finally, one flexible system is all you need for all your data and event logging, alarm notification and status checking needs. RACO's Catalyst<sup>®</sup> Interactive Communications System provides an up-to-the-minute, two-way connection with your critical data — whether through traditional phone, pager, cell phone or fax channels.*



### Data Logging with Immediate Access

Now you can perform data logging and get an immediate report — without going to the site.

RACO's Catalyst monitors up to 256 points to provide extensive data and event logging capabilities. Featuring up to five megabytes of on-board memory, the system can monitor data samples, alarms, channel state changes and configuration changes.

At any time, you can obtain the status of level and temperature indicators, flow meters, switches, annunciator panels, motors, pumps, compressors, PLCs, SCADA systems and other devices.

### Constant Communication Using Any Source

Download a status report today. Be alerted of alarm conditions or change a parameter at any time, using virtually any communications source.

With Catalyst, you're always in touch — via phone, fax, voice mail, pager or cellular networks. For general or keyword-selectable information, contact Catalyst. One of your pumps is down? Catalyst contacts up to 96 user destinations, communicating the alarm location and status in a voice message. Or Catalyst can report the condition to a central computer.

### Versatile Inputs and Interfaces

Catalyst features four standard internal inputs that are easily configured to sense digital or analog signals, and 56 remote channel inputs that are expandable to 256.

The system interfaces with any PLC, or with any other device using Modbus protocol, using only RS232 communications.

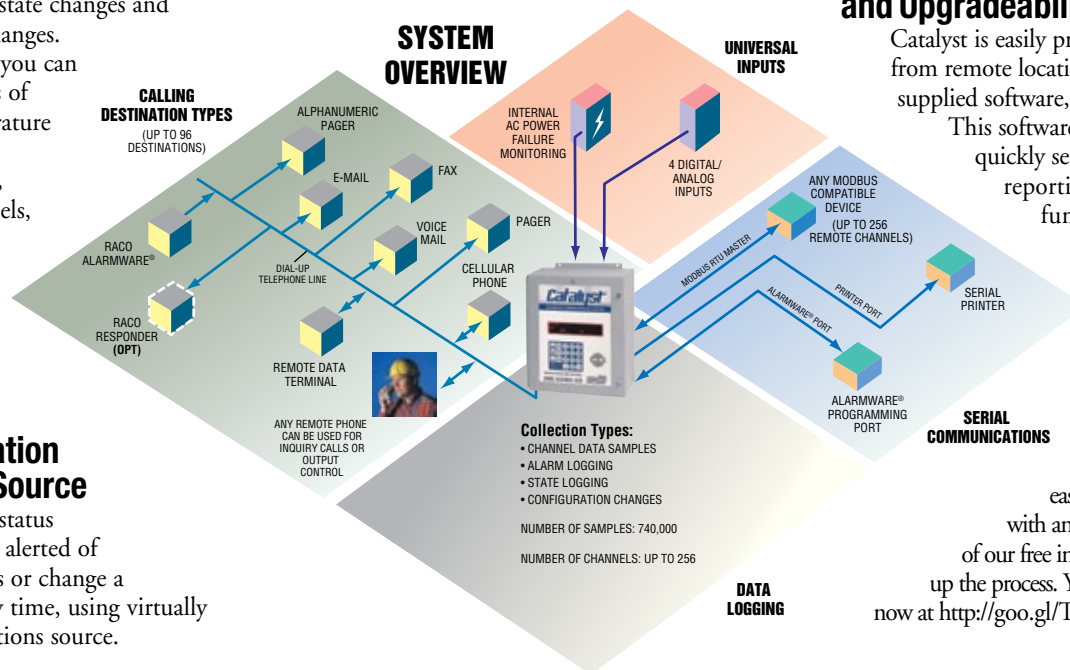
### Easy Programming and Upgradeability

Catalyst is easily programmed — even from remote locations — with the supplied software, RACO Alarmware<sup>®</sup>.

This software allows users to quickly set up all monitoring, reporting and control functions. A PIN-based security system safeguards all settings.

### Easy Integration with PLCs

RACO makes it easy to integrate Catalyst with any PLC. Take advantage of our free integration notes to speed up the process. You can download them now at <http://goo.gl/TEf5E>



## Standard Features

**Total Channels:** Up to 256 points monitored, including channels interfaced via Modbus, and 4 internal universal (analog/digital) inputs.

**Protocols:** Modbus RTU protocol built in. Interfaces to PLCs, distributed I/O, DCSs, etc.

**User Memory:** Up to 5 MB of memory for user speech and data log file.

**Internal Log File:** Collects periodically sampled channel data, alarms, state and configuration changes. Log file transfers to faxes, data collection stations and RACO Alarmware.

**Dialouts:** Calls up to 96 different destinations.

**Destination Types:** Traditional voice phone, numeric and alphanumeric pagers, faxes, data log collection stations, RACO Central Station and PA systems.

**Channel Grouping:** May assign channels to different destination groups for responsible personnel targeted calling.

**Voice Messages:** Up to 45 minutes of voice messages.

**Configuring:** Programmed via front panel, remote telephone or Alarmware software.

**RACO Alarmware Software:** Locally or remotely configures units, collects log files and maintains configurations for multiple units.

**Firmware Upgrades:** Use Alarmware to upgrade unit without changing hardware or returning unit to factory.

**Battery Backup:** 10 hours

**Warranty:** 5 years

## Standard Specifications

### IO / SENSING

4 physical universal inputs

Monitors 56, 96 or 256 Modbus addresses

### DATA LOGGING

**Frequency Interval:** 10 sec.–24 hrs.

**Number of Samples:** up to 740,000

**Number of Channels:** up to 256

### TELEPHONE

**Dialing Methods:** Selectable Touch-Tone™ or pulse dialing.

**Total Destinations:** Up to 96 different numbers, each up to 255 digits long.

**Destination Types:** Traditional voice phone, numeric and alphanumeric pagers, faxes, data log collection stations, RACO Central Station and PA systems.

**Alarm Acknowledgment:** Touch-Tone key, Alarmware, or by calling back.

**Speakerphone:** Built in for two-way, on-site calling.

**PBX Delays:** Programmable in increments of 1 second.

**Compatibility:** Compatible with most cellular telephone systems.

**FCC Registration:** Part 68, "Ringer Equivalence": 0.3A.

### SPEECH MESSAGES

Users record their own messages. Also includes resident vocabulary for programming guidance and for default "alarm/normal" speech if no user messages are recorded.

### PROTOCOLS

Modbus RTU Master

### CONNECTIVITY

**Modbus Port:** RS232 9 pin D Sub male  
RS485 9 pin D Sub male

**Alarmware Programming Port:**  
RS232C 9 pin D Sub male

**Serial Printer Port:** RJ45 modular connector

### ELECTRICAL

#### Universal Input Sensing:

**Digital:** Unpowered contact inputs. Open contacts see 5 volts DC; closed see 10mA DC.

**Analog:** 4–20mA current loop, scalable in engineering units; resolution: 0.1%, accuracy: 10 bits.

#### Power Requirements:

105-135 VAC, 50/60 Hz, 15 watts maximum or 8-14 VDC at 500mA maximum

**Power Consumption:** Standby 420mA, active 450mA

**Battery Backup:** 10 hours

**Battery Charging:** Precision voltage controlled, including automatic rapid recharge after drain.

**Surge Protection:** Integral gas tube and solid-state protectors on all phone, power and signal lines.

### PHYSICAL

#### Rugged Metal Indoor Enclosure:

**Weight:** 8 lbs. (3.6 kg)

**Dimensions:** 11<sup>7</sup>/<sub>8</sub>" H x 9" W x 5" D

**Mounting Centers:** 11<sup>3</sup>/<sub>8</sub>" V x 6" H

### ENVIRONMENTAL

**Temperature Range:** 20° to 130°F

**Humidity:** 0 to 95%, non-condensing

### UL STANDARD

Catalyst complies with UL Standards: 1459, 1950.

## WARRANTY

Five-year parts and labor warranty. See our separate warranty card for details.

## Accessories

**4 MB Memory:** 4 MB memory upgrade for the following models: C10-S-020-1450 and C1S-S-020-1450.

**NEMA 4X Enclosure:** Fiberglass NEMA 4X enclosure, watertight/dust-tight with locking hasp.

**Serial Printer Cable:** 6' Catalyst to serial printer cable.

**Modbus Cable:** 6' Catalyst to Modbus cable.

**Alarmware Cable:** 6' Catalyst to computer cable.

**Cellularm®:** Cellularm cellular telephone communications system for the Catalyst. Includes cellular telephone, 12-hour standby battery, "rubber ducky" antenna and a NEMA 4X enclosure that houses all the above components.

**Power Supply:** UL approved, CSA/UL approved.

**Environmental:** Heater with thermostat control.

## Catalyst Models

### C10-S-020-1450

Monitors 56 total channels, including 4 internal digital/analog inputs, 1 MB memory, 120 VAC power source.

### C10-1-020-1450

Monitors 96 total channels, including 4 internal digital/analog inputs, 5 MB memory, 120 VAC power source.

### C10-2-020-1450

Monitors 256 total channels, including 4 internal digital/analog inputs, 5 MB memory, 120 VAC power source.

For ordering information, call toll-free at 800-722-6999.



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