

SINCE 1948
RACO[®]
REMOTE ALARMS AND CONTROLS

Verbatim[®]



**Digital Input
Monitoring Option**
For VERBATIM
Automatic Dialing
Remote Monitoring System

VERBATIM Automatic Dialing and Remote Monitoring Systems are capable of monitoring dry contact-type digital inputs. The standard configuration for a single Verbatim system is 4 digital inputs, expandable to a total of 8, 16, 24, or 32 inputs with the RACO Digital Input Monitoring Option.

The availability of extra digital inputs increases the number of monitoring points, as well as securing system operating information such as Pulse Totalizing and Run Time Metering.

The VERBATIM System continuously monitors the status of all contact closure points, as well as the presence of AC power. Violation of the alarm criteria at any input or the loss of power will cause the unit to go into alarm status and begin autodialing.

The Digital Input Monitoring Option consists of a circuit card, which plugs into the VERBATIM System. At time of order, each card is factory configured for the desired total number of digital inputs required by the customer. The option is field upgradable and expandable, requiring installation of plug-in IC chips, but no soldering.

With a single program entry, the unit will accept all input states as the normal non-alarm state, eliminating possible confusion about *normally open* versus *normally closed* inputs.

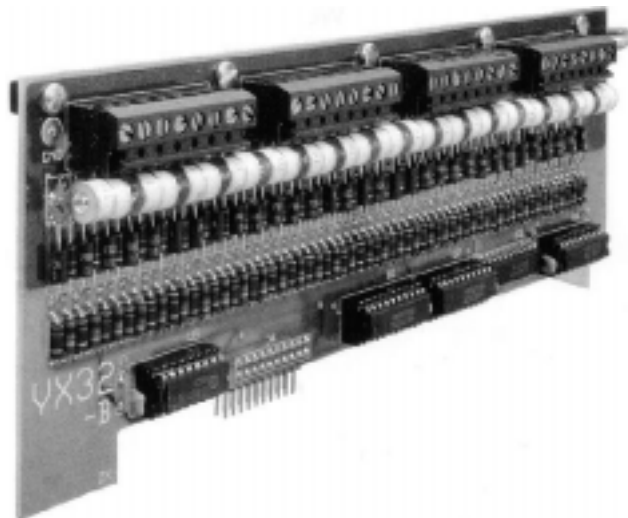
As a diagnostic aid, the VERBATIM System has the capability of directly announcing the state of any given input as currently open circuit or closed circuit, without disturbing any message programming.

All VERBATIM System programming may be done by either front panel or over-the-phone commands without the need to manipulate circuit board switches or jumpers. Each input channel is independently programmable as *normally open* or *normally closed*, or for *no alarm (status only)*, or for *Pulse Totalizing* or for *Run Time Metering*. An input channel can be turned off so that it will not report or cause an alarm.

With *Run Time Metering*, any digital input can be programmed to accumulate and report the number of hours their respective input circuits have been closed. Upon inquiry, the system will report the status of the input and the closed circuit time to the nearest tenth of an hour. Run Time Meters can accumulate running time up to 99,999.9 hours. Up to eight meters can be programmed.

A digital input in a VERBATIM System can be optionally used for *Pulse Totalizing*, which accumulates the number of pulses (momentary contact closures) occurring at the input. The maximum input pulse rate must not exceed 100 pulses per second, and if the rate is greater than 50 pulses per second, the pulses must have a 50% duty cycle. The user can program the initial starting value and scale factor for each input, as well as establish a setpoint for alarm reporting. Up to eight totalizers can be programmed.

Each input has heavy duty surge protection (gas tubes backed up with solid state tranzorbs) meeting IEEE Standards 587, Category B. Unlike most isolation schemes, this protection is effective with the fast risetimes characteristic of lightning-induced surges.



Digital (Dry Contact) Input Monitoring Specifications

Open Circuit Voltage:
5VDC

Closed Circuit Current:
1 ma DC

**Maximum Loop Resistance
for Closed Contact Reading:**
3,000 ohms

Speech Messages:
User recordable
Generic default messages also provided

Programmable Alarm Criteria:
Alarm on closed, open, or status only (no alarm)

Special Programmable Modes:

Accumulate closed contact ("run") time from 0-99,999.9 hours. Count pulses 0-4 billion, 100 pps maximum pulse rate at 50% duty cycle. Scaling for pulse count readings is user programmable. On units with a sufficient number of inputs, the user can program a maximum of 8 run time meters and 8 pulse counters.

Surge Protection:

Gas tube followed by solid state tranzorb.

Ordering Table:

Specify number of inputs at time of order (also field upgradable). A standard configuration is 4 digital inputs. Refer to table below to order for greater numbers.

VERBATIM

Model	Description	Voice Recording Time
VSS8C	Monitors 8 digital inputs	26 seconds
VSS16C	Monitors 16 digital inputs	52 seconds
VSS24C	Monitors 24 digital inputs	78 seconds
VSS32C	Monitors 32 digital inputs	104 seconds



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