The DiaLog Elite Remote Control Capability allows a DiaLog Elite to control relays on from 1 to 16 remotely located DiaLog Elite units. The Remote Control Capability is resident in all DiaLog Elite units.

When any alarm condition occurs the Elite calls a remote Elite over a phone line using the Modbus RTU protocol and tells the remote unit to turn specific relays on or off. By using the Modbus RTU protocol, all communication between the Elites is secure, ensuring a positive action is taken at each remote.

Each Elite has all the capabilities of all Elites, they can independently monitor up to 48 digital and analog signals and locally control up to 24 relay outputs, perform alarm callouts and receive calls for acknowledging alarms, controlling relays and checking status.

CURRENT CONDITIONS

Both remote and controlling Elite units can be called at any time to receive the current system status. Additionally, all units can fax status reports based on time of day or alarm conditions.

TYPICAL APPLICATIONS

Tank level measurement from a reservoir or water tower back to a pump or lift station for the purpose of pump control.

REMOTE SYSTEM FEEDBACK

When an Elite calls a remote Elite to turn relays on or off the communication between the systems is confirmed by the remote unit acknowledging the receipt of the command and the execution of the command. Unlike some systems that utilize only a DTMF tone communication that is unreliable, the Elite communication is a computer-to-computer protocol.

AUTOMATIC ALARM ACKNOWLEDGEMENT

Alarm conditions cause the remote Elite to be called and relays turned on or off. The alarm condition can be automatically acknowledged when the remote Elite has successfully performed its function. If the alarm is acknowledged, then no other alarm calls are made. If the alarm is not acknowledged, either by configuration or because communication with the remote cannot be established, then any additional calls to personnel, modem or fax machines are made.

MULTIPLE SITE CONTROLS

A single Elite can control up to 256 remote relays. These relays can be located in a single remote Elite or distributed into separate remote Elite units.

Turn pumps on and off at a pumping station based on high and low levels or manual controls.
LOCAL OR DIRECT CONTROL

Each Elite unit is a full-function unit that can perform local control based on alarm conditions or be directly controlled from any phone. Alarm conditions that can control relays are contact settings, high and low limits, positive and negative rates of change, pump run time limits and total flow limits.

RELAY OUTPUTS

Each Elite remote unit can be equipped with between 4 and 24 relays. The relays can be configured to be normally open or closed, to be energized or de-energized for a predefined period of time from 1 to 86,400 seconds (1 day), or to stay in a condition until instructed to change (latched).

VOICE CAPABILITY

The controlling and remote Elite units have complete voice capability for programming either locally or remotely, alarm notification and acknowledgement and call-in status reporting.

NO ADDITIONAL HARDWARE

Neither the controlling Elite nor the remote Elite units require any additional hardware to enable remote control capabilities.

HOW TO PROGRAM?

To activate or deactivate relays at a remote unit each relay is enabled. At the controlling Elite, a unique phone number is entered into the normal alarm phone list. The number is programmed as follows:

<phone-#>*01<Modbus-ID><relay-#><ack-code>

where:
phone-# is the telephone number of the remote Elite
*01 is a unique code indicating that the communication between the Elites uses the Modbus RTU protocol
Modbus-ID is the Modbus code for specific unit (1-247)
relay-# is the number of a relay on the remote unit (from 11 – 64)
ack-code is 1 if the alarm is to be automatically acknowledged when the command is processed by the remote unit, is 0 if there is no automatic acknowledgement.

SPECIFICATIONS

Output relays: 4-24, 8A 120VAC, SPDT, NO or NC
Temperature: -40 to 185°F
Power: 120VAC or 12-18VDC
Battery: 24-hour automatic backup and recharge

Typical Elite Controller and Remote System

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