



## DESCRIPTION

The AL64 Alarm-Controller Unit is a functional plug-in module in the Validyne MC1 Modular Control System. The unit may be plugged interchangeably into any available channel position in the module case, with power on, without damage or effect on adjacent channels.

The AL64 offers two continuously adjustable set points over the range of 0 to  $\pm 10$ Vdc which can be used to monitor and control a 0 to  $\pm 10$ Vdc input signal— either from another functional plug-in in the same module case, or any external signal source.

Each set point is adjustable by either trim pots (or 10-turn precision potentiometers with locking dial which resolves readings to 10 millivolts). Front panel test points enable critical calibration of set points. Polarity of each set point is selected by a toggle switch on the front panel. Each set point is programmable to sense rising only or falling only inputs.

Latching or nonlatching mode is selected by a single toggle switch (affects both channels) on the front panel. Alarm status is displayed by an LED for each channel.

The timing circuit enables several modes of operation. A separate front panel time control adjustment allows continuous variation of delay or pulsewidth from zero to 1, 10, or 100 seconds for each set point.

Delay or pulse modes are determined by circuit card jumpers for each set point. Pulsed mode can be single-shot or multiple-train, depending on jumper selection.

The latched single-pulse mode will give a single-shot output at the time of the first set point exceedance, but will not produce alarms on subsequent set point exceedance unless the latch has been reset. The unlatched single-pulse mode will provide a one-shot alarm at each set-point exceedance.

## Features

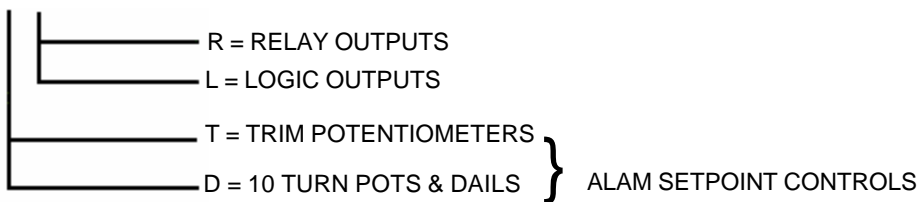
- Two independently adjustable set points. Adjustable 0 to  $\pm 10$ Vdc rising only or falling only polarity timing function.
- A timing circuit provides for adjustable delayed alarm or pulsed alarm (or combination of both modes), from 0 to 100 seconds.
- Alarms are relay contacts, or TTL compatible logic gates.
- Electronic alarm latching circuitry enables response to short transients.
- Both internal and external alarm reset.
- LED status displays for local alarm monitoring.
- Set point hysteresis independent of set point level adjustable in the field.

## Specifications

<b>Input:</b>	$\pm 10$ volts into 1 megohm. Momentary 115Vac application without damage.
<b>Set Point Controls:</b>	Two trim pots or two 10-turn potentiometers with locking dials calibrated for 0 to 10 volts, with dial resolution to 10 millivolts (depends on option choice). Front panel toggle switches select set point polarities.
<b>Set Point Accuracy:</b>	$\pm 0.25\%$ of full scale. Test points at front panel enable set point voltage measurement.
<b>Set Point Stability:</b>	$\pm 0.1\%$ of full scale plus 0.005%/°F.
<b>Alarm Sense (Standard Unit):</b>	"Alarm" 1: rising input through set point causes alarm; "Alarm" 2: falling input through set point causes alarm. Jumpers can be reconnected to reverse either or both alarm sense directions.
<b>Relay Contacts:</b>	2A @ 26Vdc, or 1A @ 115Vac, non-inductive. Jumpers determine normally open or closed contacts. (Standard unit supplied normally open.)
<b>Logic Gate (Option):</b>	Up to 10 unit loads, TTL compatible positive during alarm.
<b>Timing Circuit:</b>	0 to 10 seconds is the normal adjustment range of delay or pulsewidth. Full-scale range 1 second through 100 seconds available by changing a terminal mounted resistor. Front panel test points and timing control potentiometers enable simple and precise setup of timing for each alarm.
<b>Timing &amp; Logic Modes:</b>	Pin and socket terminated jumper wires enable easy patching of timing and logic modes: A) Delay or pulse output modes, B) Single or multiple pulse modes, C) "Alarm 2" reset by actuation of "Alarm 1."

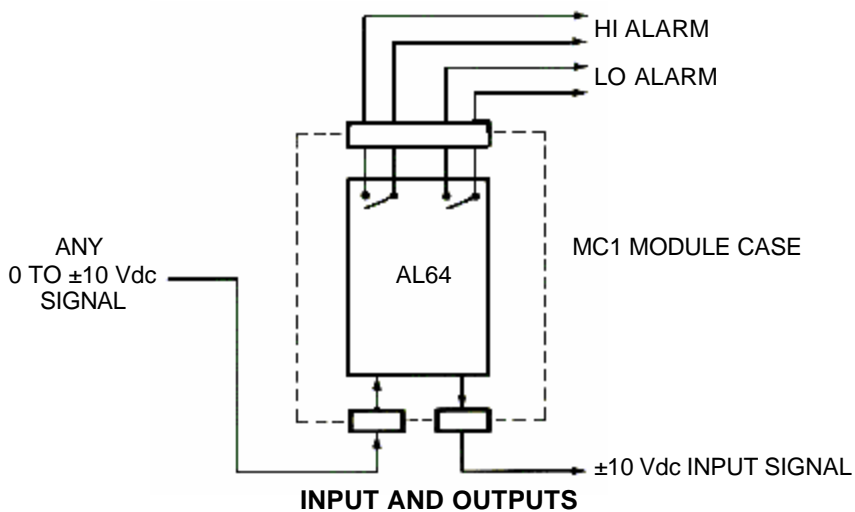
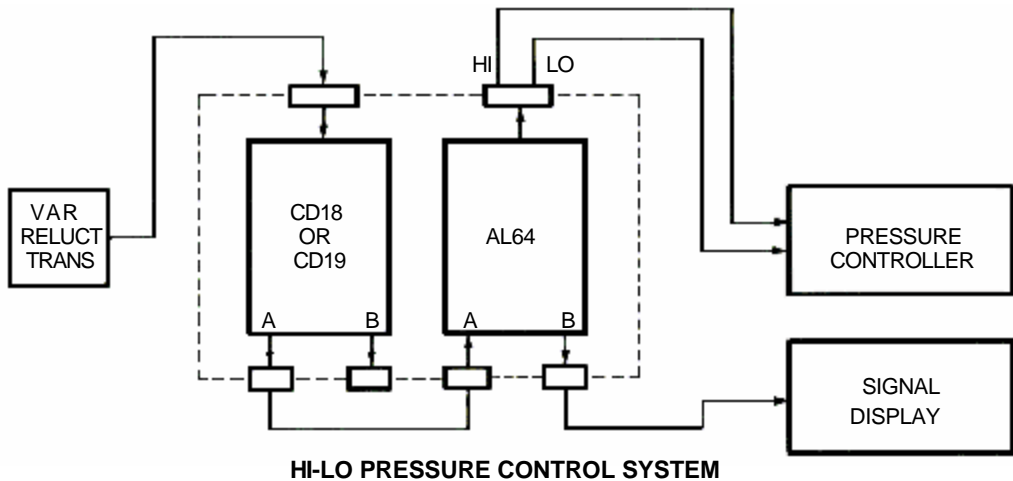
**OPTIONS** THE OPTIONS AND THEIR RESULTS ARE TABULATED BELOW:

AL64-X-X



	<u>Relays</u>	<u>Logic Gate Outputs</u>	<u>Front Panel Controls</u>
AL64-T-R	Yes	No	Trim potentiometers
AL64-D-R	Yes	No	10 turn pots and dials
AL64-T-L	No	Yes	Trim potentiometers
AL64-D-L	No	Yes	10 turn pots and dials

**TYPICAL APPLICATIONS**



**Accessories**

P/N 7616-2 Plug-in Module Connection Extender



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