



## MODEL 2403 VALVE STATUS MODULE

... Provides status indication and control of two-position valves.

### FEATURES

- Long life LED's provide indication of status and monitoring of control functions.
- OPEN-CLOSE-AUTO selector switches provide automatic operation with manual override.
- Failure system provides visual indication if valve fails to respond to control signal.
- Optional audible alarm available.
- 120VAC/24VDC/12VDC power source.

### DESCRIPTION

Assuming the valve being controlled has limit switches which will signal a fully open, or fully closed position, the 2403 Valve Status Module operates in the following manner:

If the valve is closed, the green CLOSED indicator will be lit. If the OPEN-CLOSE-AUTO pushbuttons are indexed to the AUTO mode, and an external contact closure signals the valve to begin to open, the red OPEN indicator will begin to flash intermittently, indicating the valve is to travel to this position.

As the valve begins to open, the green CLOSED indicating lamp will go out, and the amber TRAVEL indicating lamp will glow steady, until the valve is fully open. When the valve is fully open the TRAVEL lamp will go out and the red OPEN indicating lamp will glow steady.

When operation is reversed and the valve is to close, the red OPEN indicator goes out, the green CLOSED indicator flashes, and the amber TRAVEL light glows steady. When the valve reaches a fully closed position, the amber TRAVEL light will go out and the green CLOSED light will go from a flashing to a steady state condition.



A time delay valve failure monitoring system is standard equipment, and is field adjustable from 0.2 to 60 seconds. If the valve does not operate within the specified time, the red FAIL indicating light will come on steadily. When coupled with the Essex Model 2401 Alarm Module, the red FAIL indicator on the 2403 will flash and an audible alarm will sound from the 2401. By pushing the alarm button on either the 2401 or 2403, the alarm will be silenced, and the red FAIL light will glow steady.

An optional failure relay is available to activate external devices should a valve fail.

Auxiliary contacts are included on the OPEN-CLOSE-AUTO pushbuttons to provide remote monitoring of these switches, or to provide the capability for interlocking. By using the electronic CONTROL output, or the FAIL output, a remote 24VDC relay can be used to provide additional contacts and higher current ratings where needed.

## ELECTRICAL CONNECTIONS

## MODEL 2403 SPECIFICATIONS

**AMBIENT OPERATING TEMPERATURE RANGE**  
0 to 40 °C

### POWER INPUT

120 VAC  $\pm$  10% 15W max.  
24 VDC  $\pm$  10% 650 mADC max.  
12 VDC  $\pm$  10% 1200 mADC max.

### CONTROL INPUTS

Contact closure or NPN transistor; 10 mADC max. @ 24 VDC

### CONTROL OUTPUTS

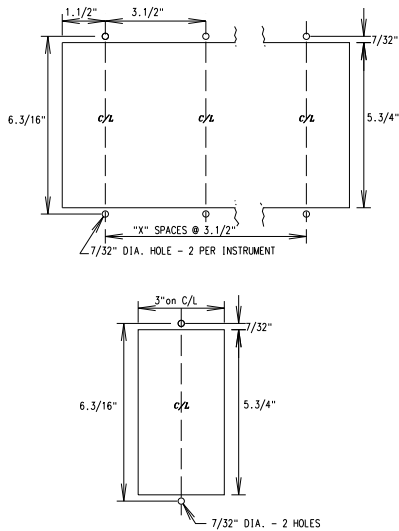
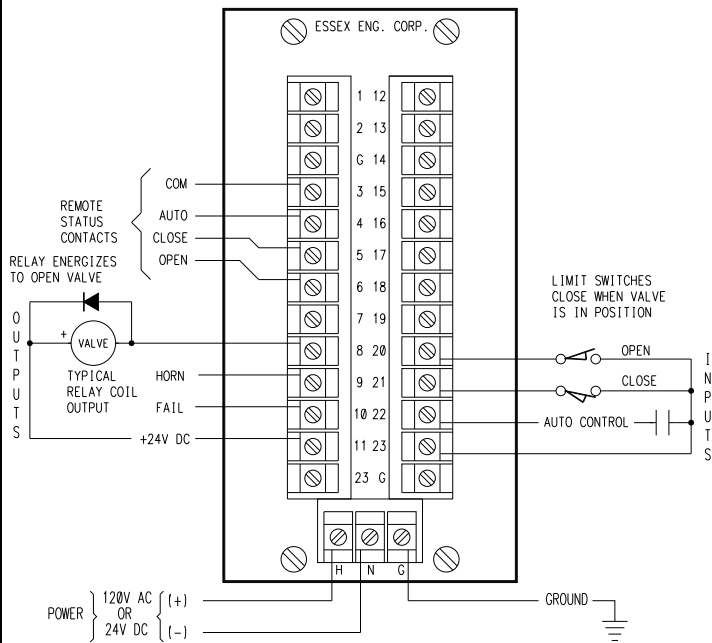
NPN solid state output; 50 VDC @ 60 mADC max.  
per point; 1 output for each valve operator, fail alarm, and horn

### INDICATORS

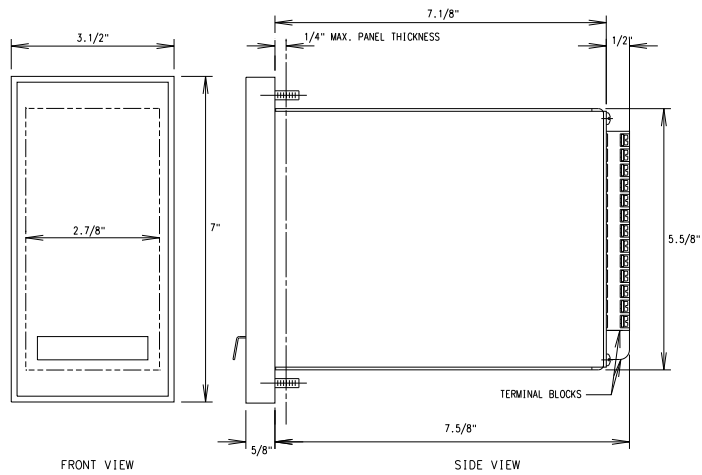
Four front panel LED indicators display status and control functions of unit

### SWITCHES

Sealed contact inputs one each for AUTO, OPEN, CLOSE and ALM/SIL



**CUTOUT DIMENSIONS**



**OVERALL DIMENSIONS**

**REPRESENTED BY**



**ESSEX ENGINEERING CORPORATION**

21 Industrial Drive • Ivyland, PA 18974 • 215-322-5880 • FAX 215-322-8368 • www.essexeng.com