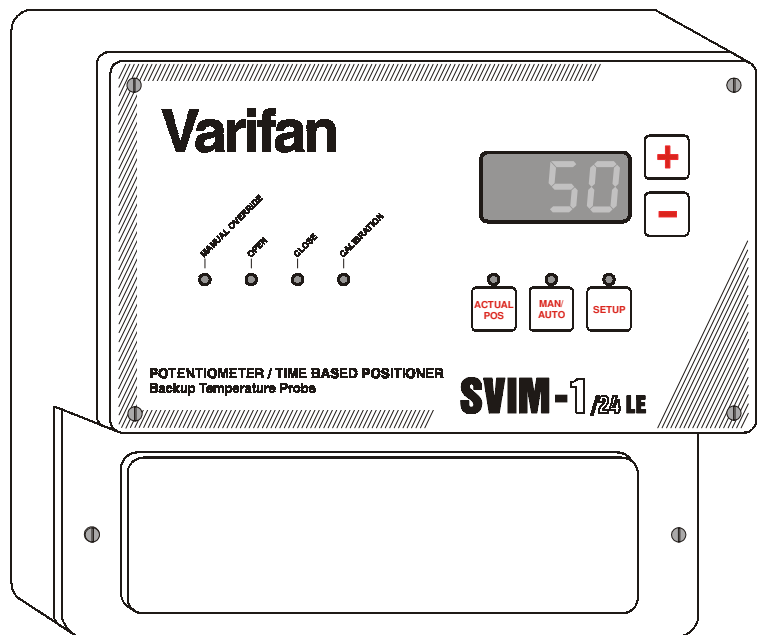


SVIM-1/24LE

User's Manual



Although the manufacturer has made every effort to ensure the accuracy of the information contained herein, this document is subject to change without notice due to ongoing product development.

WARNINGS AND PRECAUTIONS

Equipment, probe failure, blown fuses and/or tripped breakers may prove harmful to animals or plants inside the building. Therefore, it is strongly recommended to install backup devices, and alarm or warning devices. Spare equipment should also be readily available at the owner's site. Equipment manufactured by the manufacturer is protected against normal line surges. High surges caused by thunderstorms or power supply equipment may damage this equipment. For added security against line voltage surges, it is recommended to install surge and noise suppression devices near the electrical distribution panel. The use of shielded cable is recommended for probes to protect them against lightning. These devices are available from most electrical supply distributors.

RECOMMENDATIONS

The manufacturer recommends that all installation procedures described herein be performed by a qualified electrician or installation technician. Furthermore, the manufacturer recommends testing of all functions and equipment connected to the SVIM-1/24_{LE} – including alarm system and backup devices – after installation, after changes in the installation and weekly thereafter.

Fuse verification and replacement, as well as proper setting of control values, remain the responsibility of the owner of this equipment.

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1. INTRODUCTION

This document provides the necessary information to install and operate the SVIM-1/24LE.

The SVIM-1/24LE is a positioner which controls motorized air inlets. The SVIM-1/24LE is connected to a master control, either an SVC or an IC (configurable control). With the commands received from the SVC or IC, the SVIM-1/24LE positions an air inlet according to the ventilation request.

The SVIM-1/24LE can control two different types of air inlet actuators: with or without feedback potentiometer.

- With feedback potentiometer: The positioning is controlled by the feedback potentiometer, which delivers a more precise positioning.
- Curtain time positioning (time mode): This method is used when the air inlet system does not have a feedback potentiometer. The time mode positioning uses the traveling time of the curtain to evaluate its position.

Calibration

The SVIM-1/24LE has a calibration function that is very simple to use. The calibration allows the unit to establish its own position references during installation.

User's settings

The SVIM-1/24LE is easy to use: most settings are automatically determined by the master control (SVC or IC). The user can nevertheless adjust some settings in order to adapt the SVIM-1/24LE to requirements particular to his installation. The four-digit LED readout displays the status of configuration settings and of the system in general (actual position, error messages).

Safety features

- In case of loss of communication with the master control, the SVIM-1/24LE autonomously operates

SVIM-1/24LE

the air curtain or inlet by using its own temperature probe or by moving the air curtain or inlet to a preprogrammed position.

- The SVIM-1/24LE detects most problematic situations related to the actuator or to the feedback potentiometer, and ensures normal operation until corrections are made. For instance, if a potentiometer sends an irregular feedback, the SVIM-1/24LE automatically switches to time mode until the problem is solved.
- The time mode includes a curtain repositioning function, which provides dependable long-term actuator precision even in the absence of a feedback potentiometer.

Temperature probe

The SVIM-1/24LE temperature probe can be installed in two different ways:

- Inside probe: With an inside temperature probe, the SVIM-1/24LE is able to command the air inlet according to the room temperature in case the master control loses power or fails. When using an IC (intelligent control) in conjunction with the SVIM, use only the inside probe option.
- Outside probe: For applications without feedback potentiometer, the outside probe is used to ensure that the air inlet repositioning will not occur if the outside temperature exceeds a temperature limit.

2. INSTALLATION

2.1 UNPACKING

Unpack the SVIM-1/24LE from its box and inspect the contents for damage. Should the contents appear to be damaged, contact your distributor for return procedures.

The package should contain the following standard items:

- 1 SVIM-1/24LE module
- 2 fuses
- 1 temperature probe (part # 2004-5K/sv)
- 1 user's manual

2.2 INSTALLATION

The manufacturer recommends that the following installation instructions be observed very carefully, and that all the work be performed by a certified electrician. Failure to comply may void the warranty!

Mounting hardware is not included with the unit.

- Use a screwdriver to remove the faceplate and the power compartment's cover.
- Once both faceplates are off, install the mounting screw on the wall and mount the unit on it.
- Secure the SVIM-1/24LE in place using the bottom mounting holes.

Make sure the unit is properly installed, that is, side up with the cable entry holes facing down.

To limit the unit's exposure to noxious gases install it in a hallway.

Install it in an area protected from sunlight. The SVIM-1/24LE will operate within a temperature range of 32°F to 120°F (0°C to 50°C).

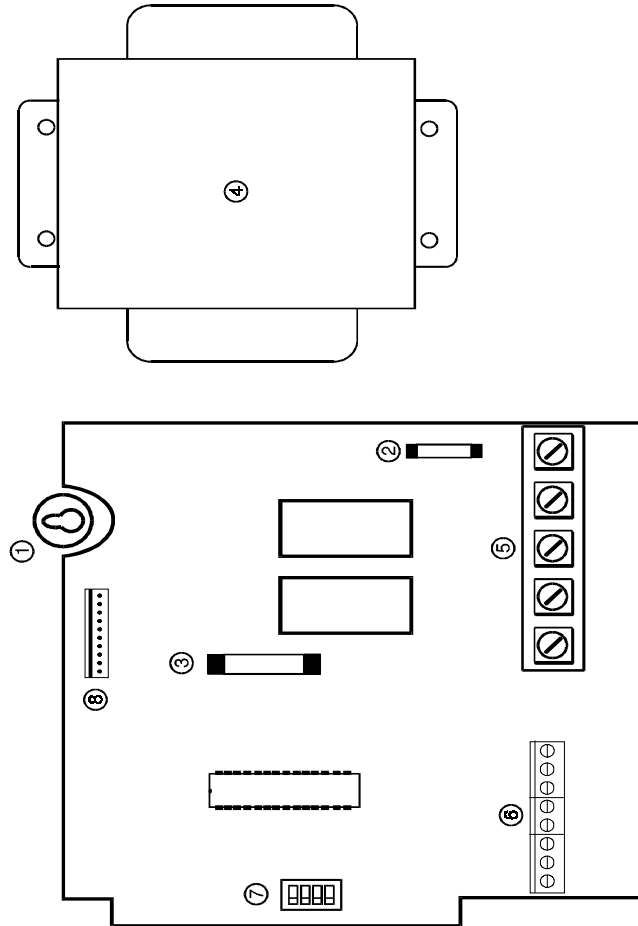
The enclosure is watertight, but not splash-proof nor immersion-proof. DO NOT USE PRESSURIZED WATER on the control. Cover it carefully with plastic before cleaning the room.

DO NOT drill additional holes in the enclosure.

The use of overhead cables to bring to the SVIM-1/24LE signals from probes and communication ports situated in adjacent buildings exposes the unit to damage from over voltage caused by lightning. Consequently, to prevent such damage, the manufacturer recommends that the unit be located in the same building as the probes and communication ports connected to it.

2. INSTALLATION

Fig. 1: SVIM-1/24LE main board view



1. Mounting hole
2. 1.5 A, 250 V fuse
3. 3 A, 250 V slow-blow fuse
4. Power transformer
5. Power source terminal
6. Input terminal
7. dip switches
8. Flat cable connector

2.3 CONNECTION PROCEDURE

2.3.1 Cable entry holes

Use a punch or screwdriver to remove cable knock-outs from the unit casing, so that cables may be brought to the main board terminal blocks.

Do not apply power to the control panel until all connections have been completed. The current draw of the load should be in the range of 100 mA to 2.5 A when it is activated.

2.3.2 Connection of power cables

Connect the power cable to terminals 4 and 5 and the ground wire to terminal 3 on the right-hand terminal block.

2.3.3 Connection to the master control

- Install a #22 AWG shielded cable between the SVIM-1/24LE and the master control. The cable can be extended up to a maximum of 750 ft. (230 m).
- Connect one end of the cable to the + and – MGCB terminals of the SVIM-1/24LE low voltage terminal block. Refer to figures 1 (6) and 2.

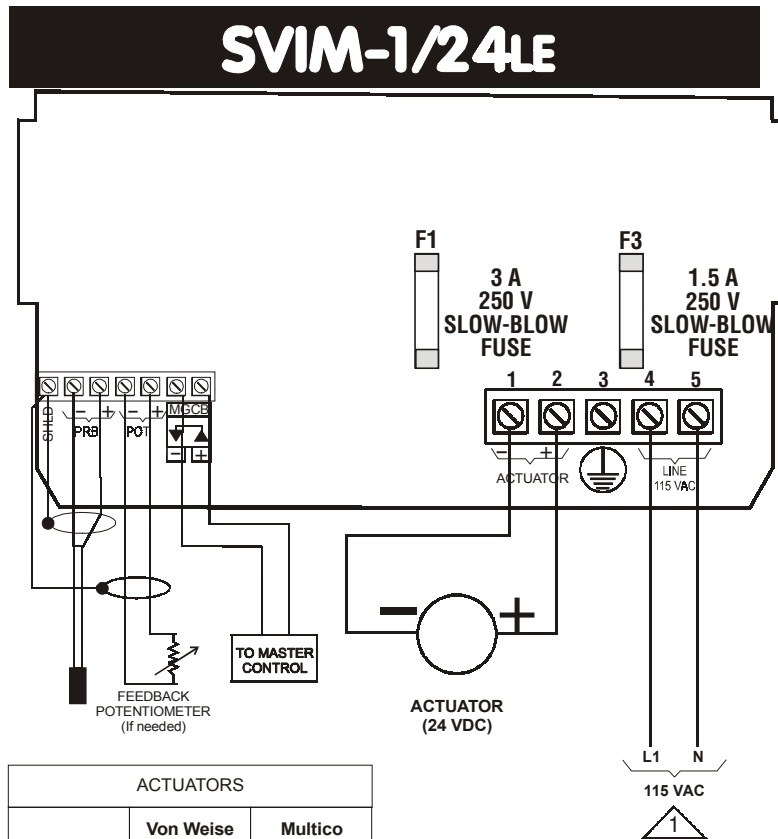
2.3.4 Connection of the actuator

Refer to figure 2 for standard actuators. Do not forget to join the wire shield to the terminal SHLD. Some installations may require connecting the actuator enclosure to the ground.

- Use the actuator on the longest travel time possible to obtain maximum accuracy in air curtain or inlet positioning.
 - Some actuators have a maximum operating time. The calibration must be done within this maximum time in order to prevent motors from

2. INSTALLATION

Fig. 2: SVIM-1/24LE wiring diagram



1 Power cut and protection devices in case of overload

SVIM-1/24LE

overheating (see also 3.2.3.12, Cooling delay, page 22).

- The maximum actuator travel (opening or closing) time must not exceed 45 minutes.
- Use an actuator equipped with a motor not subject to overheating. If the actuator motor overheats easily, refer to section 3.2.3.12.

ACTUATOR CONNECTION

The wire connecting the SVIM-1/24LE to the actuator must not exceed 200 ft. (60 m) in length and must have a minimum capacity of AWG #16.

Select the best wire for the installation. For example, when the distance is too long or when the actuator draws a strong current, use a bigger conductor to avoid voltage drops.

2.3.5 Connection of a feedback potentiometer

If a feedback potentiometer is used:

- Connect the two potentiometer wires to the SVIM-1/24LE two terminals referred to as POT on the left-hand terminal block. Refer to figures 1 (6) and 2.
- Connect the common potentiometer wire to the GNA terminal.
- Connect the other wire to the POT terminal.

The potentiometer's resistance value must increase when the air inlet opens.





2.3.6 Connection of the temperature probe

- Connect the probe to the SVIM-1/24LE using a #18 to #22 AWG shielded cable. The cable can be extended up to a maximum of 500 ft. (150 m).

2. INSTALLATION

2.4 SWITCH SETTINGS

2.4.1 Software setting dip switches (refer to figure 1 [7])

OFF	ON	OFF	ON
	1	Time	Potentiometer
	2	ID = 1	ID = 2
	3	Inside	Outside
	4	SVC	IC

These switches, located on the bottom main board, are used to adjust the following options.

Switch 1: If a feedback potentiometer is used, set the switch to the ON position.

Switch 2: Channel selector: If 2 SVIMs are used on the same configurable control port (with the appropriate configurations), set the two #2 dip switches at different positions.

Switch 3: Determines the SVIM-1/24LE's temperature probe location.

Inside probe: In normal or in backup mode, the SVIM-1/24LE is able to control curtain or shutter positioning according to the inside temperature.

Outside probe: If the outside temperature exceeds the limit set in parameters CLd.t. or Hot.t, this setting delays the auto-calibration cycle. This option can only be used in time mode; likewise, CLd.t. or Hot.t parameters are visible only in time mode (dip switch#1 set to OFF).

Switch 4: Selects the appropriate operating parameters according to the master control (SVC or IC).

2.5 POWER UP AND CALIBRATION

Before powering up the SVIM-1/24LE, attach the faceplates to the casing of the control using the screws previously removed, and be sure to read section 2.3.4, Connection of an actuator, on page 10.

The SVIM-1/24LE needs to be calibrated the first time it is powered. This calibration enables the SVIM-1/24LE to evaluate the maximum and minimum positions of the curtain or inlet.

A bad connection of the cables or pulleys joining the actuator to the air inlet or curtain decreases the accuracy of the air inlet or curtain positioning.

Initial calibration is done in two steps:

Step 1: Press the SETUP button until CAL flashes on the display.

Step 2: Press the + and – buttons simultaneously. At this point, the calibration LED turns on and the calibration cycle, consisting in the eight following operations, begins:

- 1 Inlet closes completely to set minimum position
- 2 Inlet opens completely to set maximum position
- 3 Cooling delay PAUS (if activated)
- 4 Inlet closes once again
- 5 Cooling delay PAUS (if activated)
- 6 Inlet opens in steps
- 7 Cooling delay PAUS (if activated)
- 8 Inlet closes in steps

It is possible to interrupt the calibration cycle by repeating steps 1 and 2.

You will notice that the calibration LED flashes during the cooling delays.

2. INSTALLATION

Once the calibration cycle is completed successfully, the SVIM-1/24LE is ready for normal operation.

To test the unit separately from the master control:

- Set the SVIM-1/24LE to **MANUAL** mode (see section 3.2.2 in the user's guide);
- Then press the adjustment buttons (+ and –) to change the air inlet or curtain position by opening or closing it.

If the air inlet does not move or if an error message appears, refer to the Troubleshooting section in the appendix of this document.

To find out how much time the actuator calibration will take, note the time (in minutes) needed by the actuator to open completely and do the following calculation:

	(Opening time x 4):		_____ minutes
+	(Parameter PAUS setting time delay x 3):	+	_____ minutes
=	Total actuator calibration time:	=	===== minutes

Once calibration is completed:

- The user may manually adjust the tightness of the closed air inlet or curtain only when the SVIM-1/24LE display shows a “Clo” position.
- All other manual adjustments brought to the equipment connected to the actuator — for example, changing the position of the air inlet or curtain, or lengthening (or shortening) cables or pulleys — will disturb the calibration of the actuator. In such cases, the actuator should be calibrated once again to obtain desired results.

3. OPERATION

3.1 FACEPLATE

The SVIM-1/24LE's faceplate (figure 3) has four LED indicators, three selection buttons, two adjustment buttons and a four-digit LED status window. Below is a brief description of those features.

3.1.1 LED indicators (refer to figure 3 [2,3,4])

On the left-hand side of the faceplate, are four LED indicators showing four different modes.

1. **MANUAL OVERRIDE:** This LED indicates that the control is operating in manual mode.
2. **OPEN:** When lit, this LED indicates that a signal to open is currently processed.
3. **CLOSE:** When lit, this LED indicates that a signal to close is currently processed.
4. **CALIBRATION:** When lit, this LED indicates that a calibration cycle is currently running.

When flashing, the OPEN, CLOSE and CALIBRATION LEDs signal that the winch motor pauses temporarily to cool off.

3.1.2 Selection buttons (refer to figure 3 [5,6,7])

Parameters are selected with three selection buttons located beneath the LED display. Details and examples will be given in subsequent sections. Each button has its own LED indicator to confirm activation.

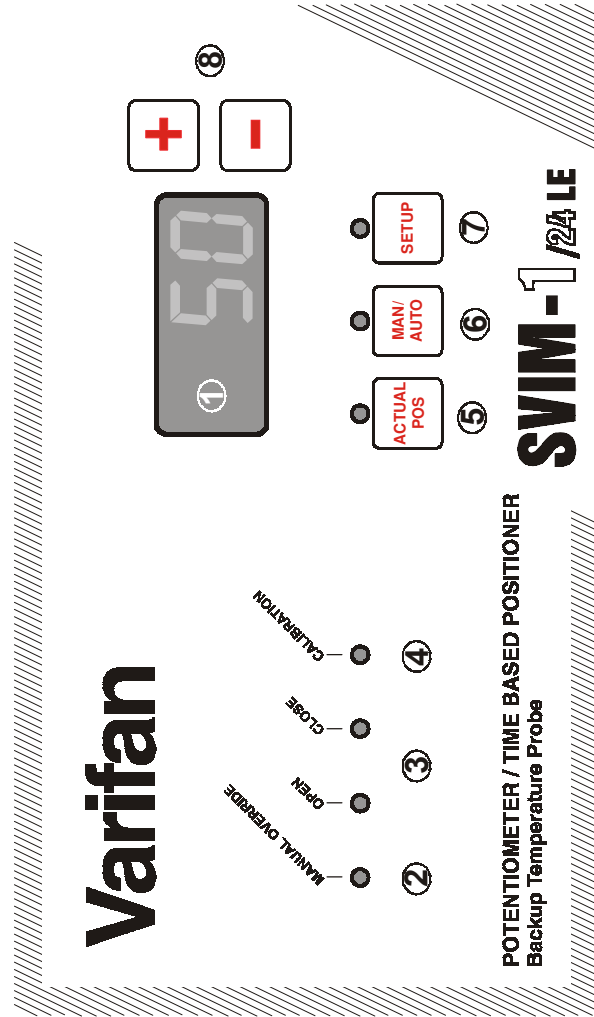
3.1.3 LED status window (refer to figure 3 [1])

The LED status window features a four-digit LED readout of the actual position, temperature in °C or °F, and programmable settings. After a setting is selected, its value appears on the LED display. If the value is flashing, it can be changed with the + and – buttons.

3.1.4 Adjustment buttons (+ and –) (refer to figure 3 [8])

The two adjustment buttons, which have a + or – sign appearing on them, are used to increase or decrease the value flashing in the LED window. Press either button once and release it to increase or decrease the value by one increment. The value may be changed more quickly if you keep your finger on the button.

Fig. 3: SVIM-1/24LE Faceplate



1. LED display
2. Manual override LED
3. Open and close LEDs
4. Calibration LED
5. Actual position button
6. Manual/auto button
7. Setup button
8. Adjustment buttons

SVIM-1/24LE

3.2 PARAMETERS

This section provides a description of the SVIM-1/24LE parameters and of their operation.

3.2.1 ACTUAL POS (refer to figure 3 [5])

The actual position parameter allows the user to know the exact curtain position (CLO, 1 to 99, OPEN). When the SVIM-1/24LE is in a calibration cycle, the message CAL is displayed.

3.2.2 MAN/AUTO (refer to figure 3 [6])

The manual/automatic parameter enables the user to switch from automatic to manual mode. The following examples illustrate the functions available through this button according to the SVIM-1/24LE operating mode.

- 1- **In auto mode**, press MAN/AUTO once. The LED window displays a blinking "AUTO". Press the button once more to switch to manual mode. The value of the required position flashes. Change this position with the adjustment buttons (+ and –).
- 2- **In manual mode**, press on MAN/AUTO once. The value of the required position flashes. Press the same button once more to switch back to auto mode.
- 3- **During calibration cycles**, the position cannot be changed manually. The message "CAL" is displayed and the MAN/AUTO button is locked.

3.2.3 SETUP (refer to figure 3 [7])

To modify configuration parameters, press the setup button.

By pressing the setup button repeatedly, the following configuration sub-parameters appear in a sequence.

3. OPERATION

3.2.3.1 MINIMUM POSITION (Lo)

The minimum position parameter is the minimum opening which can be reached in auto mode. The curtain will not close beyond this value. Range: CLo, 1 to 99. This parameter is available only when the SVIM-1/24LE is used in conjunction with an IC master control (dip switch #4 is set to ON).

3.2.3.2 MAXIMUM POSITION (Hi)

The maximum position parameter is the maximum opening which may be reached in auto mode. The curtain will not open beyond this value. Range: Lo + 1 to 99, Open.

3.2.3.3 PROBE READING (Prb)

The probe parameter displays the temperature read by the probe. The current value is displayed either in °C or °F, depending on which of the measurement units is set by the master control (SVC, IC).

3.2.3.4 CALIBRATION (CAL)

The calibration parameter can be activated or deactivated when the flashing message "CAL" is displayed and both + and – buttons are pushed simultaneously. When a calibration cycle is in progress, it may be interrupted by pressing the + and – buttons simultaneously. If, for any reason, calibration is interrupted, the module will safely resume its operation with preceding values.

3.2.3.5 AUTO-CALIBRATION (A.CAL)

This parameter is visible only if dip switch #1 is OFF and is not visible when a feedback potentiometer is used. After a number of changes in direction, the actuator movement loses some precision because a small percentage of error is added each time it moves. With auto-calibration, the user can determine the number of changes in direction after which auto-calibration is automatically done. The number of

SVIM-1/24LE

changes in direction is selected within a range of 10 to 250 (and OFF) and adjusted by increments of 10. This parameter may be deactivated, although it is not recommended to do so.

If the SVIM-1/24LE temperature probe is used as outside probe (dip switch #3 set to ON), the auto-calibration may be delayed if outside conditions are not within a safe range (see section 3.3 on auto-calibration).

3.2.3.6 EXTREME TEMPERATURE (CLd.t or Hot.t)

This parameter is visible only if dip switch #3 is set to OUTSIDE and if DIP switch #1 is set to time mode. The extreme temperature parameter is a safety feature, which delays auto-calibration whenever the outside temperature goes beyond an acceptable limit.

The user can specify the value he chooses for the cold or hot temperature limit within a range of -4° to 80°F (-20° to 30°C).

Fig. 4 Example using the extreme temperature parameter

Outside temp.	Extreme temp. setting	A. CAL setting	Result: auto-calibration
25°C	10°C (CLd.T)	OPEn	YES
9°C	10°C (CLd.T)	OPEn	DELAYED
30°C	27°C (Hot.t)	CLo	DELAYED
15°C	27°C (Hot.t)	CLo	YES

3.2.3.7 DELAY BEFORE OPENING (dEL.O)

If the SVIM-1/24LE receives a signal to open, it waits until the delay is completed before opening. During the delay, the LED OPEN (refer to figure 3 [3]) flashes. The delay before opening is adjusted from OFF to 254 seconds by increments of one second.

3. OPERATION

3.2.3.8 MAXIMUM PERCENTAGE OF OPENING (Pct.O)

This parameter slows down the opening of the air inlet or curtain, by limiting the actuator's opening movement to Pct.O% between delays before opening.

This parameter cannot be set at a lower value than that of the resolution (see section 3.2.3.10). To deactivate this parameter, set it to 100%.

EXAMPLE

The inlet is 50% open and the master control commands the SVIM-1/24LE to open it at 63%. The Pct.O parameter is set at 10%. After the delay (dEL.O), the SVIM-1/24LE opens the inlet at 60%, then waits after an identical delay to open the remaining 3%.

3.2.3.9 DELAY BEFORE CLOSING (dEL.C)

If the SVIM-1/24LE receives a signal to close, it waits until the delay is completed before closing. During the delay, the LED OPEN (refer to figure 3 [3]) flashes. The delay before closing is adjusted from OFF to 254 seconds by increments of one second.

3.2.3.10 RESOLUTION (rES)

This parameter enables the SVIM-1/24LE to move by fixed steps of 1% or more to avoid small unnecessary movements of the actuator. Range: from 1% to 15%.

EXAMPLE

The inlet position is at 50% and the resolution is set at 4%. If the master control requests 53%, the SVIM-1/24LE will not move the inlet because the movement requested (3%) is smaller than the resolution (4%).

EXAMPLE

The inlet position is at 50% and the resolution is set at 4%. The master control requests an opening of 60%. Since the SVIM-1/24LE can only move by fixed steps of 4%, it positions the air inlet or curtain at 58% (50% + [2 × 4%]). In this example, an opening of 58% represents the largest movement that can be executed without exceeding the request for an opening of 60%.

3.2.3.11 AUTOMATIC CALIBRATION DIRECTION (dir.C)

This parameter is accessible in time mode (dip switch #1 set to OFF) and not visible when the SVIM-1/24LE uses a feedback potentiometer. This parameter is used to determine the direction in which the automatic calibration will be done. The user can select between Clo, to prevent the inlet from completely opening during winter, and OPEn, to prevent the inlet from completely closing during summer or for tunnel ventilation.

3.2.3.12 COOLING DELAY (PAUS)

Some actuators can overheat if they are used for longer periods of time than their intended time of use. To avoid potential problems caused by overheating of an actuator during the SVIM-1/24LE calibration, it is preferable to provoke a cooling delay (PAUS). The PAUS delay is calculated in minutes and is activated three times during the calibration procedure. The calibration LED blinks to indicate that the SVIM-1/24LE is waiting until the end of the delay before resuming the calibration procedure.

3. OPERATION

3.3 AUTOMATIC CALIBRATION

Auto-calibration is only operational when the SVIM-1/24LE is in time mode (dip switch #1 set to OFF) and is always deactivated when the SVIM-1/24LE is in potentiometer mode. This function enables the SVIM-1/24LE to reevaluate the precision of its position either by opening or closing completely the curtain. Automatic calibration is set with parameters A.CAL and dir.C.

The parameter dir.C tells the SVIM-1/24LE to carry out auto-calibration either in the opening or closing direction. The SVIM-1/24LE will reposition the inlet/baffle precisely after a number of changes in direction defined by the user (A. CAL parameter, section 3.2.3.5). The SVIM-1/24LE can also reposition the inlet/baffle when it reaches a limit of Lo or Hi.

CAUTION

When tunnel ventilation is used, the air inlet auto-calibration must be done in the opening direction (set the Dir.C parameter to the open position). Otherwise, if the air inlet auto-calibration is done in the closing direction, the air vacuum will jam the curtain in its closed position.

CAUTION

Some installations require the air inlet never to go beyond the Lo or Hi limits. These installations should use an actuator with a feedback potentiometer.

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3.4 ADDITIONAL SAFETY FEATURES

A few additional safety features have been added to the SVIM-1/24LE so livestock is not affected by outside or inside temperature during extraordinary situations.

3.4.1 Stand-alone operation

The stand-alone operation of the SVIM-1/24LE can provide safe operation during control failure. With its own temperature probe, each SVIM-1/24LE can control the inlet position according to ambient temperature.

When not probe is used, the SVIM-1/24LE can be programmed to maintain the last position recorded when the control failure occurred or to go to a specific position.

3.4.2 Potentiometer failure detection

If the feedback potentiometer is defective, the SVIM-1/24LE automatically switches to time mode, in order to ensure normal operation until the problem is solved.

3.4.3 Master control backup

In the event of a curtain jam, the master control (SVC or IC) is immediately informed and takes appropriate action.

APPENDIX

USER'S SETTINGS

Parameters	Summer	Winter
Lo (1)	_____ %	_____ %
Hi	_____ %	_____ %
A.CAL (2)	_____	_____
CLd.t (3)	_____ <input type="checkbox"/> °C <input type="checkbox"/> °F	_____ <input type="checkbox"/> °C <input type="checkbox"/> °F
Hot.t (3)	_____ <input type="checkbox"/> °C <input type="checkbox"/> °F	_____ <input type="checkbox"/> °C <input type="checkbox"/> °F
dEL.O	_____ seconds	_____ seconds
Pct.O	_____ %	_____ %
dEL.C	_____ seconds	_____ seconds
rES	_____ %	_____ %
dir.C (2)	<input type="checkbox"/> OPEN <input type="checkbox"/> CLOSE	<input type="checkbox"/> OPEN <input type="checkbox"/> CLOSE
PAUS	_____ minutes	_____ minutes

- (1) This parameter does not apply if the master control is an SVC.
- (2) This parameter does not apply if the system uses a feedback potentiometer.
- (3) This parameter is visible only if the system uses an outside temperature probe.

TROUBLESHOOTING

SYMPTOMS	CAUSES and SOLUTIONS
The display is blank.	<ul style="list-style-type: none">– Check if fuse F3 is blown.– Verify that the ten-pin flat cable joining the main board and the faceplate board is connected at both ends.
Open or close lights go ON but the motor isn't working.	<ul style="list-style-type: none">– The actuator is at its end (open or closed).– Fuse F1 is blown. Replace it with a fuse of the same type.– The actuator's motor thermal protection is open.– There may be a wiring problem.– The actuator is defective.– The SVIM-1/24LE has never been calibrated.
The air inlet does not go in the direction indicated by the OPEN or CLOSE LED.	<ul style="list-style-type: none">– The actuator's motor is connected backwards. Invert the – and + wires of the right-hand side terminal block (refer to figure 2).
The display shows Err1.	<ul style="list-style-type: none">– The curtain is jammed.– The SVIM-1/24LE's calibration is lost.– Fuse F1 is blown.– There may be a wiring problem.– The actuator's motor thermal protection is open.
The display shows Err2.	<ul style="list-style-type: none">– The potentiometer is hooked up backwards or OPEN and CLOSE wires are inverted.

SYMPTOMS	CAUSES and SOLUTIONS
The display shows Err 3.	<ul style="list-style-type: none">- The module receives an odd signal from the actuator's potentiometer. For reasons of safety, the actuator does a timed positioning. The error message will disappear when operations return to normal. If the error message appears often, it is recommended to verify the electric connections or the actuator's potentiometer.
The display shows Err 4.	<ul style="list-style-type: none">- There is a faulty or missing temperature probe.- Faulty setting of normal or backup operating mode.
The display shows Err 5.	<ul style="list-style-type: none">- The opening time is too short to obtain a precise positioning.

SPECIFICATIONS

Description	Value
Power Consumption	90 W max.
Power Source	115 VAC, 50/60Hz, -20%, +10 %
Current Detector	2.5 A max.

Storage temperature range: -22 to 130°F (-30 to 55°C)

Operating temperature range: 32 to 122°F (0 to 50°C)

Temp. range read by probe: -3.5 to 121°F (-19.5 to 49.5°C)

Weight: 5 lbs. (2.25 kg)

Size: 8 ¼ X 8 X 3 ¾ in.
(21.3 X 20.3 X 9.5 cm)

Standards: CSA & NRTL

Fuse F1: 3 A, 250 V, slow-blow

Fuse F3: 1.5 A, 250 V

Operating range of the SVIM-1/24LE current detector:

- When **OFF**, the actuator current draw must be under 1 mA.
- When **ON**, the actuator current draw must be between 100 mA and 2.5 A.

LIMITED WARRANTY

The assembled unit and individual components have been rigorously inspected in order to ensure optimal quality and reliability of the product. Individual controls are factory tested under load. However, the possibility of equipment failure and/or malfunction still exists.

For service, contact your local retailer or supplier. The warranty period shall be for two years from manufacturing date. Proof of purchase is required for warranty validation.

In all cases, the warranty shall apply only to defects in workmanship and specifically exclude any damage caused by over voltage or current overload, short-circuit, misuse, act of vandalism, fortuitous event, act of God, flood, fire, hail, lightning or any other natural disaster. Any unauthorized work, modification or repair on this product automatically voids the warranty and releases the manufacturer from all responsibility.

The manufacturer assumes only those obligations set forth in the previous paragraphs, excluding all other warranties or obligations. This warranty stipulates that in all cases, the manufacturer shall be liable only for the supply of replacement parts or goods and shall not be liable for any personal injury, damage, loss of profit, interrupted operation, fine as a result of infringement of the law or damage to the production of the purchaser, and the purchaser shall take up the defense and hold the manufacturer faultless regarding any legal or extralegal proceeding, notice, or claim by a customer or by a third party, and regarding any legal and extralegal expense and fee brought forth by any such damage.

MAVSVIM-1/24, version 5.1
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Chip 110e