

Valvcon™ V-series heater/ thermostat kit and tropical heater / thermostat kit

Installation, maintenance and
operating instructions



Table of contents

GENERAL	3
Description Heater/Thermostat Kit	3
Description Tropical Heater/Thermostat Kit	3
Safety Precautions	3
INSTALLATION	3
Tools Required	3
Parts Verification	3
Installation Instructions	4
Proper Actuator Cover Replacement	4
OPERATION	5

READ THESE INSTRUCTIONS FIRST!

These instructions provide information about safe handling and operation of the valve.

If you require additional assistance, please contact the manufacturer or manufacturer's representative.

SAVE THESE INSTRUCTIONS!

Addresses and phone numbers are printed on the back cover.

1. GENERAL

1.1 DESCRIPTION HEATER/THERMOSTAT KIT

The V-Series Heater/Thermostat option is a resistance heater strip which is wrapped around and applied to the primary gearbox. The "T" Option is recommended in installations where the ambient temperatures drop below 32°F (0°C). The thermostat is pre-set to activate at 40°F (4°C) and deactivate at 60°F (15°C). It is simple to install with self-adhesive backing and a plug-in connector. No additional brackets are required.

Separate kits are available: The 115VAC heater is rated at 15 watts and the 230VAC heater is rated at 40 watts.

1.2 DESCRIPTION TROPICAL HEATER/THERMOSTAT KIT

The V-Series Tropical Heater/Thermostat Kit is recommended in high-humidity environments or in applications that experience wide temperature swings in order to evaporate condensation. It maintains an internal ambient temperature between 90°F (32°C) and 110°F (43°C), preventing the build-up of condensation.

Separate kits are available: The 115VAC heater is rated at 15 watts and the 230VAC heater is rated at 40 watts..

1.3 SAFETY PRECAUTIONS

WARNING:

DO NOT EXCEED THE ACTUATOR PERFORMANCE LIMITATIONS! EXCEEDING THE TORQUE LIMITATIONS MARKED ON THE ACTUATOR IDENTIFICATION NAMEPLATE LABEL MAY CAUSE DAMAGE TO THE ACTUATOR AND/OR FINAL DRIVE ELEMENT.

WARNING:

DO NOT EXCEED THE ACTUATOR ELECTRICAL LIMITATIONS! EXCEEDING THE ELECTRICAL LIMITATIONS MARKED ON THE ACTUATOR IDENTIFICATION NAMEPLATE LABEL MAY CAUSE DAMAGE TO THE ACTUATOR AND/OR PERSONAL INJURY.

WARNING:

BEWARE OF MOVEMENT OF THE FINAL DRIVE ELEMENT AND ANY LINKAGE BETWEEN IT AND THE ACTUATOR!

KEEP HANDS, OTHER PARTS OF THE BODY, TOOLS AND OTHER OBJECTS OUT OF THE WAY OF MOVING PARTS. FAILURE TO DO THIS MAY RESULT IN DAMAGE OR PERSONAL INJURY!

WARNING:

ACTUATORS SHOULD BE PROPERLY GROUNDED AND WIRED IN ACCORDANCE WITH LOCAL ELECTRICAL CODE; SEE IDENTIFICATION NAMEPLATE LABEL FOR MAXIMUM CURRENT DRAW.

This option will fit V/LV and I/LI actuators with the letter "N" preceding the voltage designator in the part number on the product nameplate. Ensure that the option voltage matches the actuator voltage.

2. INSTALLATION

2.1 TOOLS REQUIRED

- Hex Wrench – 5mm (Small Enclosure)
- Hex Wrench – 6mm (Large Enclosure)

2.2 PARTS VERIFICATION

Verify that the kit contains all parts listed in Table 1 below:

Table 1	
Parts List for P/N VC099515 – 115 VAC	
Description	Qty
Wire Tie, Nylon	4
Heater Strip Assembly	1
Connector, 4 Position	1
Instruction Sheet	1

WARNING:

WHENEVER WORKING INSIDE THE ACTUATOR BE SURE TO FOLLOW ALL GUIDELINES, AND HEED ALL WARNINGS IN THIS OPTION KIT INSTALLATION MANUAL. BE SURE TO READ AND FOLLOW THE INSTRUCTIONS SUPPLIED WITH THE ACTUATOR CAREFULLY, AND HEED ANY ADDITIONAL WARNINGS

WARNING:

DANGEROUS VOLTAGES ARE PRESENT INSIDE THE ACTUATOR COVER UNLESS THE POWER SUPPLY TO THE ACTUATOR HAS BEEN SHUT OFF OR DISCONNECTED. USE EXTREME CAUTION WHENEVER WORKING ON THE ACTUATOR WITH THE COVER REMOVED.

WARNING:

WHENEVER WORKING INSIDE THE ACTUATOR, CARE MUST BE TAKEN TO AVOID DAMAGE TO THE MACHINED FLANGE SURFACES ON THE COVER AND BASE CASTINGS. FAILURE TO DO SO CAN VOID THE ACTUATOR'S ENVIRONMENTAL CERTIFICATION

WARNING:

USE CARE WHENEVER WORKING WITH THE ACTUATOR COVER REMOVED, DAMAGE, SCRATCHES, OR DENTS ON THE MACHINED FLANGE SURFACES OF THE ENCLOSURE MAY VOID COMPLIANCE WITH NEMA, CSA, UL, AND/OR IEC SPECIFICATIONS.

2.3 INSTALLATION INSTRUCTIONS

1. Remove cover.
2. Clean the surface of the motor gearbox prior to installation, (suggested solvent: rubbing alcohol).
3. Remove the plastic backing from the heater element to expose the adhesive surface.
- 4a) For V – Locate the first 'space' (see Figure 1) on the element from the wire side of the assembly and start wrapping with the 'space' on corner of the gearbox as shown by the arrow.
- 4b) For LV – Locate the second 'space' (see Figure 1) on the element from the wire side of the assembly and start wrapping with the 'space' on corner of the gearbox as shown by the arrow.
5. Wrap the heater element as shown in figure 2.
6. Plug the heater/thermostat assembly into connector "J3" on the Power Board.
7. Wrap wires and secure with cable ties as depicted in figure 3

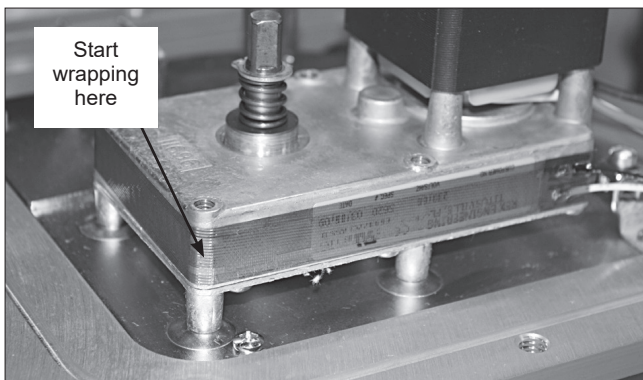


Figure 1.

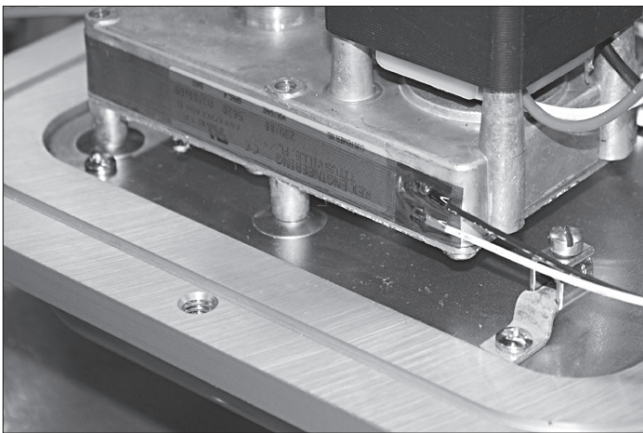


Figure 2.

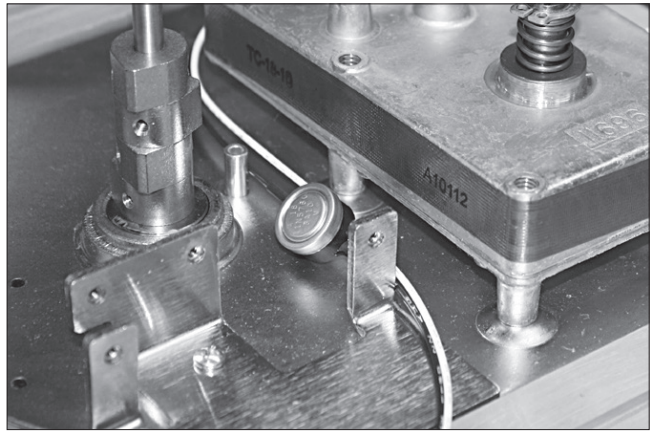


Figure 3. Wire Routing

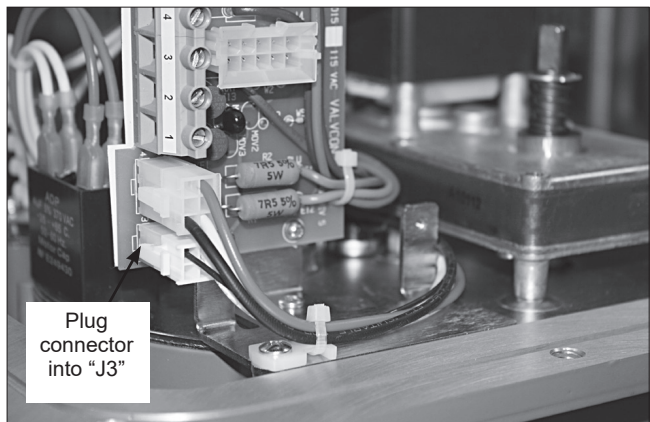


Figure 4.

2.4 PROPER ACTUATOR COVER REPLACEMENT

NOTE: For actuators including hazardous location certification. Prior to installing cover, inspect machined flange surfaces for any damage, scratches, or dents. Damage, scratches, or dents that will not fit completely in a circle having a diameter of 1/64" will void hazardous location certifications. If such imperfections are present the damaged enclosure parts(s) must be replaced. See product series IMO for captive cover screw specifications. Consult the factory for replacement parts.

1. Remove the override shaft from the actuator cover bushing; if the actuator is equipped with a handwheel, remove the handwheel before removing the top piece of the "two-piece" shaft from the cover bushing.
2. Install the override shaft on the square motor shaft; if the actuator is equipped with a handwheel, install the bottom piece of the "two-piece" shaft on the motor shaft and then install the top piece of the shaft onto the bottom piece of the shaft.
3. Align cover so that the override shaft will pass through the override bushing and carefully push it down so that the cover flange contacts the base flange.
4. Once the cover is properly seated, tighten the screws to secure the cover; a cross pattern is recommended for uniform distribution of load.
5. If the position indicator is not seated to the output/cam shaft, turn until it drops into place in order to ensure accurate visual position indication.

3. OPERATION

The Heater/Thermostat Option will activate and supply heat to the actuator whenever power is supplied to terminal 1 on the Motor Board and the temperature drops below 40°F(4°C).

The Tropical Heater/Thermostat Option will activate and supply heat to the actuator whenever power is supplied to terminal 1 on the Motor Board and the temperature drops below 90°F(32°C).

Valmet Flow Control Oy

Vanha Porvoontie 229, 01380 Vantaa, Finland.

flowcontrol@valmet.com

Tel. +358 10 417 5000.

www.valmet.com/flowcontrol

Subject to change without prior notice.

Neles, Neles Easyflow, Jamesbury, Stonel, Valvcon and Flowrox, and certain other trademarks, are either registered trademarks or trademarks of Valmet Oyj or its subsidiaries in the United States and/or in other countries.

For more information www.neles.com/trademarks

