

## For Commercial and Industrial Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# LEAD FREE\*

## Series LFEMVII-6400SS

### 2-Piece, Standard Port, Lead Free\* Electric Motor Valves

Sizes: 1/4" – 2"

Series LFEMVII-6400SS 2-Piece, Standard Port, Lead Free Motorized Ball Valves consist of an electrically actuated motor available in 115 or 24 VAC models and features visual position indicator, manual override, and can be mounted in any position. The LFEMVII-6400SS ball valve features a 316 stainless steel ball and stem, Durafill® PTFE seats, stem packing, thrust washer and an adjustable packing nut. The LFEMVII-6400SS features Lead Free\* construction to comply with Lead Free\* installation requirements.

#### Features

- 316 stainless steel ball and stem bottom loaded blowout proof stem
- Durafill® PTFE seats
- Adjustable PTFE packing
- Hole in stem slot of each ball valve to equalize pressure between the body cavity and the flow stream
- 115 VAC or 24 VAC motor
- 25% duty cycle (1/4" – 1 1/2") and 75% duty cycle (2")
- Standard auxiliary SPDT switch, 10 amps rating @ 115 VAC
- Adjustable cam provides the capability of properly aligning the ball in both the open and closed position using a single, simple adjustment
- Accessible, clearly marked integral terminal strip assures fast, easy wiring
- Standard position indicator
- Manual override standard
- Motor can be changed without draining system
- Completely assembled and mountable in any position

#### Specifications

A 2-piece, standard port, Lead Free\* ball valve with electrically actuated motor to be installed as indicated on the plans. The electric motor shall have manual override, position indicator, be available in 115 VAC or 24 VAC, and be mounted in any position with an adjustable cam for easy alignment of the ball in open or close position, and clearly marked, easily accessible integral terminal strip for ease of wiring. Lead Free\* electric Motor Valve shall be constructed using Lead Free\* materials. Lead Free LFEMVII-6400SS shall comply with state codes and standards, where applicable, requiring reduced lead content.

The ball valve shall have a 316 stainless steel ball and stem, PTFE seats, and adjustable packing. Top loaded stems or valves without adjustable packing are not acceptable. Valves rated no less than 600psi (41 bar) WOG/100psi (7 bars) WSP 1/4" – 2". Supply valves tested, mounted, and fully assembled for installation. Valve shall be a Watts Series LFEMVII-6400SS.

Durafill® is a registered trademark of Cargill, Limited.



#### Pressure – Temperature

Maximum Temperature: 150° F (66° C)

1/4" – 2"

600psi (41 bar) WOG

100psi (7 bar) WSP

#### Operating Data

##### 115 VAC

0.75 amps max @ 8 sec. cycle time 1/4" – 1 1/2"

0.5 amp max @ 35 sec. cycle time 1/2" – 1 1/2"

##### 24 VAC

4.0 amps max @ 18 sec. cycle time 1/2" – 2"

2.2 amps max @ 40 sec. cycle time 1/2" – 2"

#### Applications

- Zone control valve for space heating with hot water or steam
- Zone control valve for air conditioning with chilled water
- Remotely operated valve for control of process liquids or gases (ie: steam, water or air)
- Drain or blow-down valve to eliminate water from compressed air lines and systems

#### NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

#### NOTICE

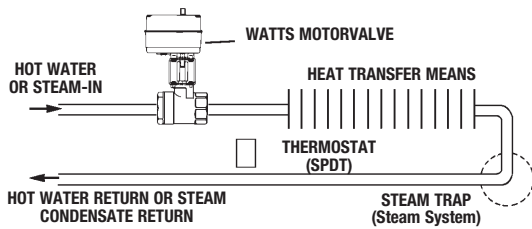
Inquire with governing authorities for local installation requirements

\*The wetted surface of this product contacted by consumable water contains less than 0.25% of lead by weight.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.

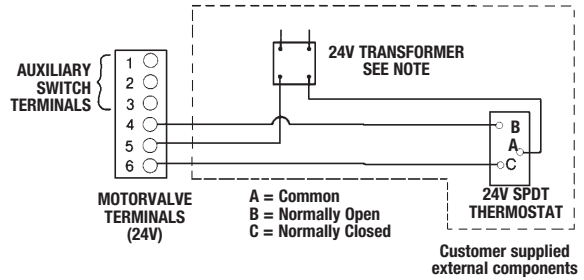
## Sample Installation #1

Use of Watts Electric Motorvalve as a zone control for hot water or steam space heating. Valve opens upon temperature drop. Closes when demand for heat is satisfied.



## Wiring Diagram #1 (1/4" - 1 1/2")

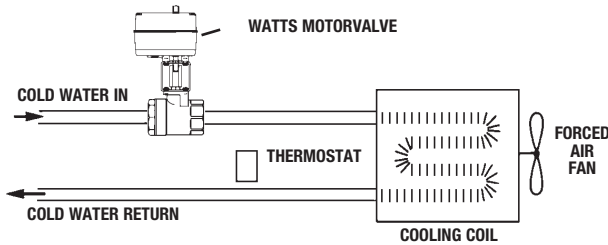
Electrical diagram with 24V control circuit, 24V Motorvalve, SPDT thermostat.



NOTE: 1/4" - 1 1/2" EMVII-6400SS-24-40 will operate with a 40 VA transformer. Thermostat must be capable of handling amp rating at stall.

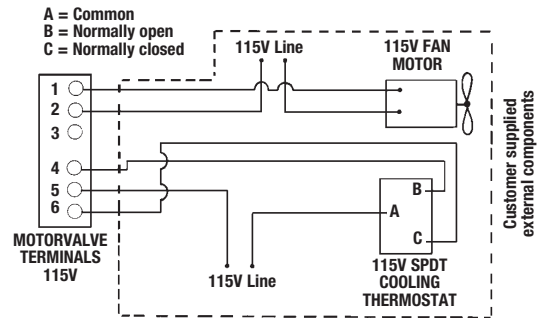
## Sample Installation #2

Cooling with refrigerated water and operating forced air fan with auxiliary switch. Motorvalve opens and starts blower upon temperature rise. Shuts off blower and closes when temperature drops to thermostat setting.



## Wiring Diagram #2 (1/4" - 1 1/2")

Electrical diagram with 115V control circuit, 115V Motorvalve, line voltage SPDT cooling thermostat, 115V blower.

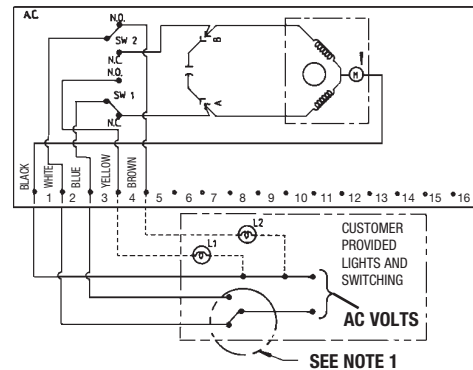


## Wiring Diagram #3 (2")

Actuator shown in counter-clockwise extreme of travel, or 'Open' position.

### NOTES:

1. 2" motorvalves are supplied with wiring terminal strips having 16 terminals.
2. Each actuator must be powered through its own individual switch contacts to avoid cross feed.
3. Motor has a thermal protector as shown in diagram.



## Terminal Function (1/4" - 1 1/2")

1/4" - 1 1/2" motorvalves are supplied with wiring terminal strips having six terminals. Terminals 4, 5 and 6 operate the motorvalve, while terminals 1, 2 and 3 are connected to an internal SPDT auxiliary switch.

NOTE: 24 VAC or 115 VAC models, the following terminal explanation will always apply.

TERMINAL NO.	FUNCTION
Operating terminal #4	When power is applied, valve will open.
Operating Terminal #5	Common
Operating Terminal #6	When power is applied, valve will close.
Auxiliary Switch Terminal #1	Makes when valve is fully open.
Auxiliary Switch Terminal #2	Common
Auxiliary Switch Terminal #3	Makes when valve is not fully open.



For additional information, visit our web site at: [www.watts.com](http://www.watts.com)

