

# CONTROL VALVES

## SOLENOID VALVES EVSI SERIES



*Danfoss*



EVSI-20-NC-24



3

CONTROL VALVES

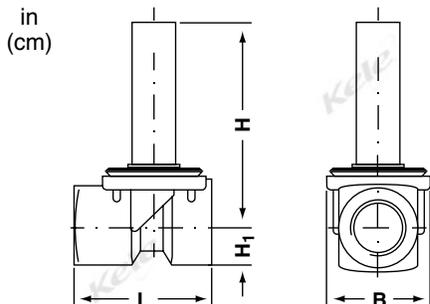
### DESCRIPTION

The Danfoss EVSI Series solenoid valves are two-way, two-position valves for clean water or low pressure steam applications and are available in normally closed or normally open operation. EVSI Series valves are pilot-operated and designed for non-water hammer operation. They come completely assembled with coil and are UL Recognized and CE Approved. The coils also include a gasketed conduit connector for NEMA 4 (IP65) environmental rating.

### FEATURES

- Anti-water hammer design
- For hot or chilled water and low pressure steam
- Fully encapsulated molded coils
- 1/2" threaded conduit connection
- Enclosed screw terminals
- NEMA 4 (IP56) environmental rating
- Modular conduit connection for easy installation
- Unique snap-on coil, no tools required

### DIMENSIONS



TYPE	NPT	L in (cm)	B in (cm)	H <sub>1</sub> in (cm)	H* in (cm)	Weight w/o coil lbs (kg)
EVSI 15	0.5"	3.25 (8.3)	2.1 (5.2)	0.6 (1.5)	3.7 (9.4)	1.8 (0.80)
EVSI 20	0.75"	3.7 (9.4)	2.25 (5.8)	0.7 (1.8)	3.9 (9.8)	2.2 (1.0)
EVSI 25	1"	4.6 (11.6)	2.75 (7.0)	0.9 (2.2)	4.25 (10.8)	3.1 (1.4)
EVSI 32	1.25"	4.8 (12.2)	3.25 (8.2)	0.7 (2.7)	4.5 (11.5)	4.4 (2.0)
EVSI 40	1.5"	5.2 (13.2)	3.75 (9.5)	1.25 (3.2)	4.9 (12.4)	7.1 (3.2)
EVSI 50	2"	6.4 (16.2)	4.4 (11.3)	1.4 (3.7)	5.1 (13.0)	9.6 (4.3)

\* For normally open valves + 3/16" (0.5 cm). 018F coil weight = 0.75 (0.34)

### SPECIFICATIONS

<b>Size</b>	1/2" FNPT to 2" FNPT	<b>Conduit Connection</b>	1/2" NPT
<b>Cv</b>	4.7, 9.4, 12.9, 21, 28, 46.8	<b>Wiring Terminations</b>	Screw terminals inside DIN connector accept 16 to 18 AWG wire; DIN spades on encapsulated coil
<b>Life Expectancy</b>	800,000 cycles minimum	<b>Action</b>	N.C., N.O. (valve body determines action)
<b>Maximum System Pressure</b>	225 psig (1550 kPa) for 1/2" and 3/4" valves; 180 psig (1240 kPa) for 1" to 2" valves	<b>Stroke Time</b>	.04 seconds opening time, 0.35 seconds closing time for 1/2" valves; up to 5.0 seconds opening time, 10.0 seconds closing time for 2" valves
<b>Pressure Drop</b>	Minimum differential pressure 4 psid (30 kPa) to operate the pilot; maximum differential pressure 142 psid (980 kPa)	<b>Manual Override</b>	EVSI-MOM manual override magnet, order separately
<b>Materials</b>		<b>Operating Temperature</b>	32° to 120°F (0° to 50°C)
<b>Of Construction</b>	Brass valve body, EPDM gasket	<b>Enclosure Rating</b>	NEMA 4 (IP65) with waterproof conduit connection
<b>Media Compatibility</b>	Clean hot or chilled water or glycol, steam ≤15 psig	<b>Dimensions</b>	Coil, 2.5"H x 1.8"W x 2.4"D (5.7 x 4.6 x 6.1 cm)
<b>Media Temperature Range</b>	14° to 248°F (-10° to 120°C)	<b>Approvals</b>	UL file #MH7648
<b>Supply Voltage</b>	120 VAC, 50/60 Hz; 24 VAC @ 14 VA, 50/60 Hz; 240 VAC, 50/60 Hz	<b>Warranty</b>	1 year
<b>Supply Watts</b>	120 VAC, 50/60 Hz; 24 VAC, 50/60 Hz; 240 VAC, 50/60 Hz		



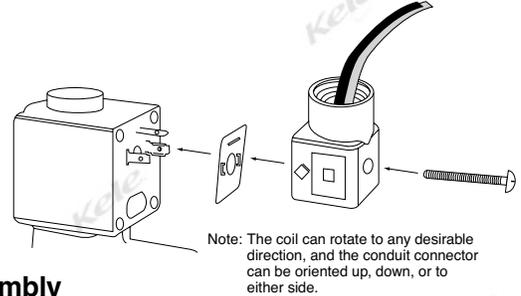
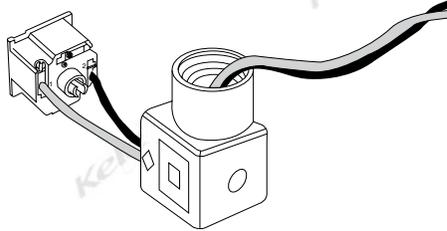
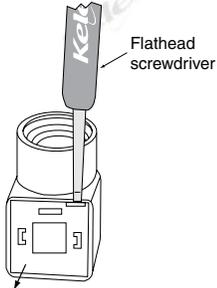
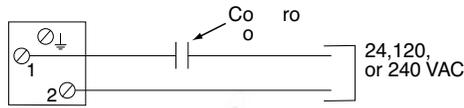
# CONTROL VALVES

## SOLENOID VALVES EVSI SERIES

3

CONTROL VALVES

### WIRING



**Conduit Connector Assembly**

Note: The coil can rotate to any desirable direction, and the conduit connector can be oriented up, down, or to either side.

### ORDERING INFORMATION

MODEL	DESCRIPTION
EVSI	Solenoid valve
	<b>SIZE (NPT)</b>
15	1/2", Cv = 4.7, opening time 0.04 sec, closing time 0.35 sec
20	3/4", Cv = 9.4, opening time 0.04 sec, closing time 1.0 sec
25	1", Cv = 12.9, opening time 0.30 sec, closing time 1.0 sec
32	1-1/4", Cv = 21.0, opening time 1.0 sec, closing time 2.5 sec
40	1-1/2", Cv = 28.0, opening time 1.5 sec, closing time 4.0 sec
50	2", Cv = 46.8, opening time 5.0 sec, closing time 10.0 sec
	<b>NORMAL MODE</b>
NC	Normally closed
NO	Normally open
	<b>COIL VOLTAGE</b>
24	24 VAC, 50/60 Hz
120	120 VAC, 50/60 Hz
240	240 VAC, 50/60 Hz

EVSI — 15 — NC — 24

**Example:** EVSI-15-NC-24 Solenoid valve with 1/2" NPT, normally closed, and 24 VAC coil

#### ACCESSORIES

018F7655	24 VAC, 50/60 Hz replacement coil only
018F7663	120 VAC, 50/60 Hz replacement coil only
018F7658	208/240 VAC, 60 Hz replacement coil only

#### RELATED PRODUCTS

EVSI-MOM	Solenoid valve manual override magnet
SSTAG	Stainless steel tag on bead chain, 1" x 2" dogtag, custom engraved per order