

2-way solenoid valves with
Clip-on coils for neutral
liquids and gases



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Introduction

The Danfoss range of general purpose solenoid valves is a series of modern 2-way valves for use with neutral liquids and gases.

If there is need for servicing, spare parts sets for all valve types are available from a world wide network of Danfoss distributors.

These products are based on more than 50 years of experience in the design, production and application of high quality solenoid valves.

Valve Types

Direct acting valves, type EVI, with no minimum differential pressure requirement. For smaller flow volumes.

Pilot operated valves, type EVSI, which require a minimum differential pressure for correct operation. For medium to large flow volumes.

Materials in NC and NO valves

	EVI 1.5 - 10	EVSI 6 - 22	EVSI 6 - 22	EVSI 15 - 50	EVSI 15 - 50
For media ¹⁾	OLW	W	OLW	OLW	WD
Armature and magnet	17% stainless chrome steel				
Armature tube and spring	18% stainless steel, AISI 304				
Valve body	Brass MS 58 ²⁾				
O-ring	NBR ^{3) 4)}	EPDM	FKM	NBR ⁴⁾	EPDM
Valve plate	NBR ^{3) 4)}	EPDM	FKM	NBR ⁴⁾	EPDM
Diaphragm	-	EPDM	FKM	FKM	EPDM

¹⁾ Media Codes:
O = Oil
L = Inert Gas (incl. Air)
W = Water
D = Steam

²⁾ EVSI 50 – gun metal



³⁾ EVI 10 – FKM

⁴⁾ NBR also known as Buna "N" or Nitrile

Ordering

Valve body and coil to be ordered separately (except recognized valves).

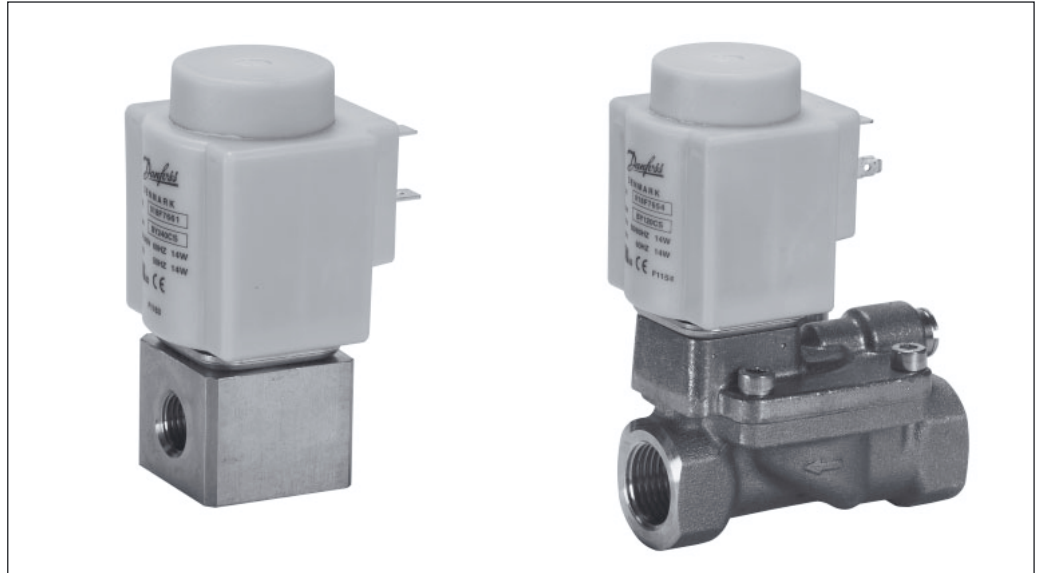
Approvals

-  certified no. 52727
-  file no. MH7648
- UR file no. MH7648 (types EVI 1.5U - 3U and EVSI 6U - 50U)

Data sheet

Type EVI 1.5 - 3U and EVSI - 50U, NC
 Component approved in Canada (CSA) and USA (UL)
 Not intended for field installation

Features



- For water
- Ambient temperature: Up to 120°F (50°C)
- Brass valve body
- Gasket materials: NBR for EVI 1.5U - 3U, EPDM for EVSI 6U - 50U
- Media temperature:
 EVI 1.5U - 3U, EVSI 6U - 18U:
 14°F (-10°C) to 194°F (+90°C)
 EVSI 15U - 50U
 -22°F (-30°C) to 212°F (+100°C)
- Test pressure:
 EVI-U 1.5, 2, 3 end EVSI 16-10:
 Max. 710 psi (50 bar)
 EVSI-U 12, 18: 225 psi (16 bar)
 EVSI-U 15, 20: 280 psi (20 bar)
- Always supplied with coil fitted with 9.5 W AC, 24 V/60 Hz, 120 V/60 Hz or 240 V/60 Hz

Ordering

In the ordering table below, a code number, type designation and suffix coil voltage are stated for each valve.
 Please use this information for ordering.

Example:
 EVI 3 U - 032U7605.32,
 240 V/60 Hz, NPT 1/4 in.

Suffix coil voltage

9.5 W AC	Suffix
24 V/60 Hz	19
120 V/60 Hz	21
240 V/60 Hz	32

Direct operated type EVI-U

Connection NPT [inch]	Orifice Size [inch]	Flow value		Opening diff. pressure				Max. Wrk. Press.		Media ¹⁾	Type	Code no. with coil
		C _v USgal/min	k _v m ³ /h	Min psi	bar	Max. psi	bar	psi	bar			
1/8	1/16	0.06	0.05	0	0	284	20	500	35	W	EVI 1.5 U	032U7601
1/8	1/12	0.06	0.05	0	0	284	20	500	35	W	EVI 2 U	032U7603
1/4	1/8	0.35	0.30	0	0	284	20	500	35	W	EVI 3 U	032U7605
3/8	1/8	0.35	0.30	0	0	284	20	500	35	W	EVI 3 U	032U7606

Data sheet

Type EVI 1.5 - 3U and EVSI - 50U, NC
Component approved in Canada (CSA) and USA (UL)
Not intended for field installation

Servo operated type EVSI-U

Connection NPT [inch]	Orifice Size [inch]	Flow value		Opening diff. pressure				Max. Wrk. Press.		Media ¹⁾	Type	Code no. with coil
		C _v USgal/min	k _v m ³ /h	Min psi	bar	Max. psi	bar	psi	bar			
1/4	1/4	0.82	0.7	0	0	145	10	350	25	W	EVSI 6 U	032U7607
3/8	1/4	0.82	0.7	0	0	145	10	350	25	W	EVSI 6 U	032U7608
3/8	3/8	1.76	1.5	1.4	0.1	145	10	350	25	W	EVSI 10 U	032U7609
1/2	3/8	1.76	1.5	1.4	0.1	145	10	350	25	W	EVSI 10 U	032U7610
1/2	1/2	2.93	2.5	4.3	0.3	145	10	142	10	W	EVSI 12 U	032U7611
1/2	9/16	4.7	4	4.3	0.3	145	10	225	16	W	EVSI 15 U	032U7613
3/4	3/4	7	6	4.3	0.3	145	10	142	10	W	EVSI 18 U	032U7612
3/4	3/4	9.4	8	4.3	0.3	145	10	225	16	W	EVSI 20 U	032U7614
1	1	12.9	11	4.3	0.3	145	10	180	12.5	W	EVSI 25 U	032U7615
1 1/4	1 1/4	21	18	4.3	0.3	145	10	180	12.5	W	EVSI 32 U	032U7616
1 1/2	1 1/2	28	24	4.3	0.3	145	10	180	12.5	W	EVSI 40 U	032U7617
2	2	46.8	40	4.3	0.3	145	10	180	12.5	W	EVSI 50 U	032U7618

Further technical information for the valve types EVI and EVSI, see data sheet DKACV.PK.600.B2.22

Data sheet

Coils

Introduction

The coils are specially designed to operate in the aggressive environment of high humidity and temperature fluctuations that you find in most refrigeration systems.

The Clip-on fastening system ensures a faultless installation and makes the coils easy to mount and dismount. A Danfoss Clip-on coil can be mounted without any tools at all, and it is simple to dismount the coil by means of a screwdriver.

The coils are available for the entire range of Danfoss solenoid valves EVI and EVSI.



Features

- Encapsulated coils with long operating life, even under extreme conditions
- Standard coils for a.c. or d.c.
- Standard coils available with DIN spade terminals
- Standard coils from 24 V to 240 V, 50, 60 or 50/60 Hz
- Coils can be fitted without the use of tools

Approvals

UL recognized with EVI, EVSI

Technical data

Ambient temperature

14 W a.c. coil for NC (normally closed) valve:
-40 → +122°F

14 W a.c. coil for NO (normally open) valve:
-40 → +122°F

20 W d.c. coil for NC and NO valve:
-40 → +122°F

Permissible voltage variation

14 W a.c. coils: +10/ -15%
20 W d.c. coils: ±10%.

Enclosure
IP 00

Connection

DIN plugs
Can be fitted with cable plugs according to DIN 43560-A

Ordering



Valve type	Voltage V	Frequency Hz	Code no.	Power consumption
			With DIN spade terminals	
<i>Alternating current a.c.</i>				
EVI EVSI	208-240	60	018F7658	Holding: 14 W 21 VA Inrush: 44 VA
	230	50		
	110	50/60	018F7663	
	24	50/60	018F7655	

Direct current d.c.

For direct current coils please ask Danfoss

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