Data sheet

Solenoid valve

EVRB

EVRB block valve station can replace a series of conventional mechanical and electro-mechanically valves

Description

EVRB block valve incorporates few functions in one housing, which can replace a series of conventional mechanical and electromechanically operated valves.
This valve station not only provides a number of advantages in the design phase of a refrigeration plant but also in the installation, service and maintenance.
The EVRB block valves are designed for oil lines with some concentration of refrigerants. Supplied as a complete assembly, it is fully tested at high pressure and its functions are tested under factory controlled conditions.

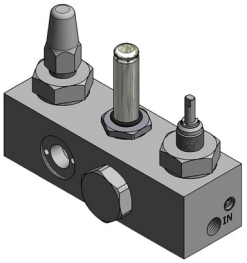
Features & benefits

- Designed for industrial refrigeration applications for a maximum working pressure of 52 bar
- Applicable to oil containing HCFC, HFC and R717 (Ammonia)
- Temperature of media -40 °C / +100 °C
- Normally closed (NC)
- Threaded connections G ¼"

Ordering

Product code numbers

Figure: EVRB without coil. Coil to be ordered separately



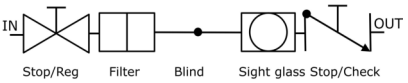
032F6361	
032F6348	
032F6391	

Table: Ordering EVRB valve

Type	Inlet/outlet connections	Orifice size [mm]	Sequence of functions					Code number
			1	2	3	4	5	
EVRB	G ¼"	1.7	Stop/reg	Filter	NC Solenoid	Sight glass	Stop/Reg	032F6361
			Stop/reg	Filter	NC Solenoid	Sight glass	Stop/Check	032F6348
			Stop/reg	Filter	Blind	Sight glass	Stop/Check	032F6391

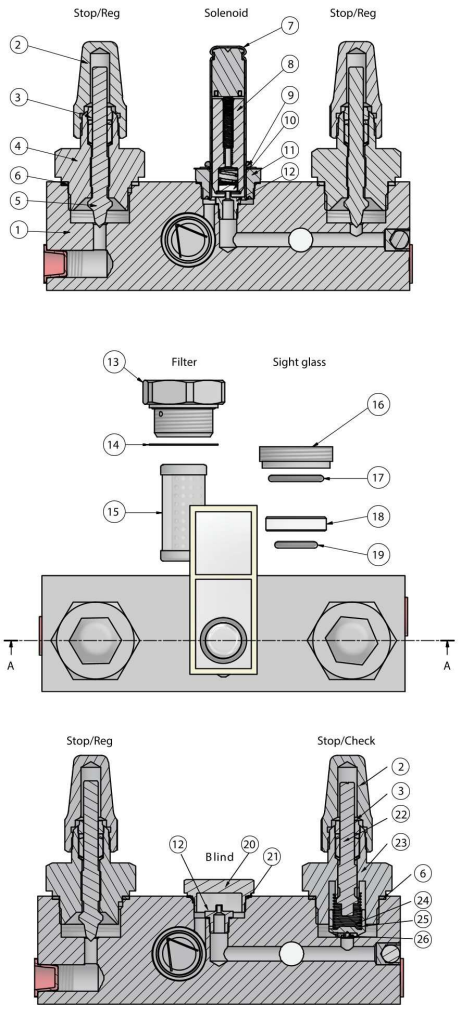
Accessories code numbers

Table: Orifice kit

Value	Code Number
K_V Value 0.05 m^3/h (Orifice Ø1,25 Mark. 5)	032F6324
K_V Value 0.11 m^3/h (Orifice Ø2,3 Mark. 7)	032F5228
K_V Value 0.12 m^3/h (Orifice Ø3 Mark. 8)	032F6325

Functions

Figure: EVRB Valve



1	Housing
2	Cap
3	Packing gland
4	Stop module housing
5	Spindle
6	Gasket
7	Armature tube
8	Armature
9	O-ring
10	Valve plate
11	Armature nut
12	Orifice
13	Strainer housing
14	Gasket
15	Strainer
16	Sight glass nut
17	O-ring
18	Glass
19	O-ring
20	Blind nut
21	Gasket
22	Spindle
23	Stop/Check module housing
24	Spring
25	Piston
26	Gasket

EVRB solenoid valve is direct operated. The valve opens direct for full flow when the armature (8) moves up into the magnetic field of the coil. This means that the valve operates with a min. differential pressure of 0 bar. The PTFE valve plate (10) is fitted directly on the armature (8). Inlet pressure acts from above on the armature and the valve plate. Thus, inlet pressure, spring force and the weight of the armature act to close the valve when the coil is current less.

Media

Refrigerants

Oil containing HCFC, HFC and R717 (Ammonia).

New refrigerants

Danfoss products are continually evaluated for use with new refrigerants depending on market requirements.

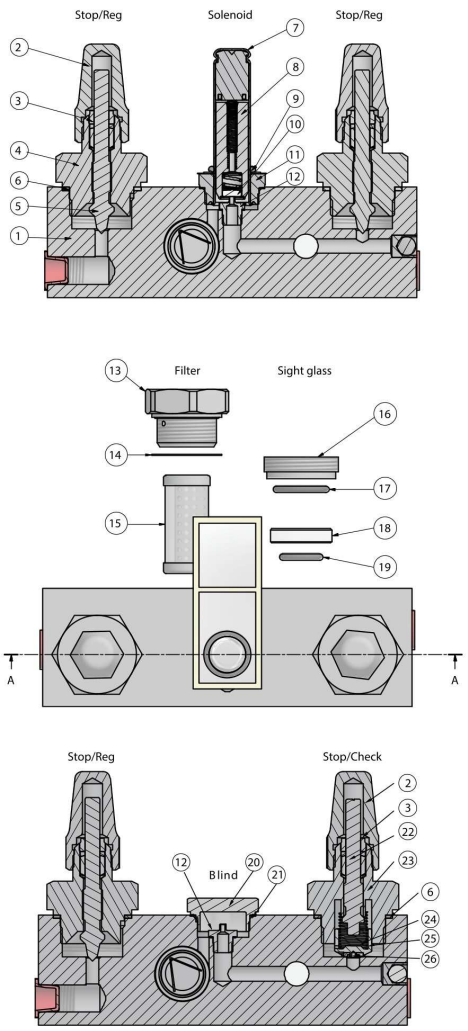
When a refrigerant is approved for use by Danfoss, it is added to the relevant portfolio, and the R number of the refrigerant (e.g. R513A) will be added to the technical data of the code number. Therefore, products for specific refrigerants are best checked at

store.danfoss.com/en/, or by contacting your local Danfoss representative.

Product details

Materials

Table: EVRB



No.	Description	Material
1	Valve housing	Free-cutting steel
2	Cap	Stainless steel
3	Packing gland	Stainless steel
4	Stop module housing	Stainless steel
5	Spindle	Stainless steel
6	Gasket	Aluminium
7	Armature tube	Stainless steel
8	Armature	Steel
9	O-ring	Chloroprene
10	Valve plate	PTFE
11	Armature tube nut	Steel
12	Orifice	Stainless steel
13	Strainer housing	Steel
14	Gasket	Aluminum
15	Strainer	Steel / stainless steel
16	Sight glass nut	Steel
17	O-ring	Chloroprene
18	Sight glass	Glass
19	O-ring	Chloroprene
20	Blind nut	Stainless steel
21	Gasket	Aluminum
22	Spindle	Stainless steel
23	Stop/Check module housing	Stainless steel
24	Spring	Stainless steel
25	Piston	Stainless steel
26	Gasket	Aluminum

Pressure and temperature data

Table: Temperature range

Description	Values
Media temperature range	-40 °C / +100 °C
Ambient temperature range	-40 °C / +50 °C

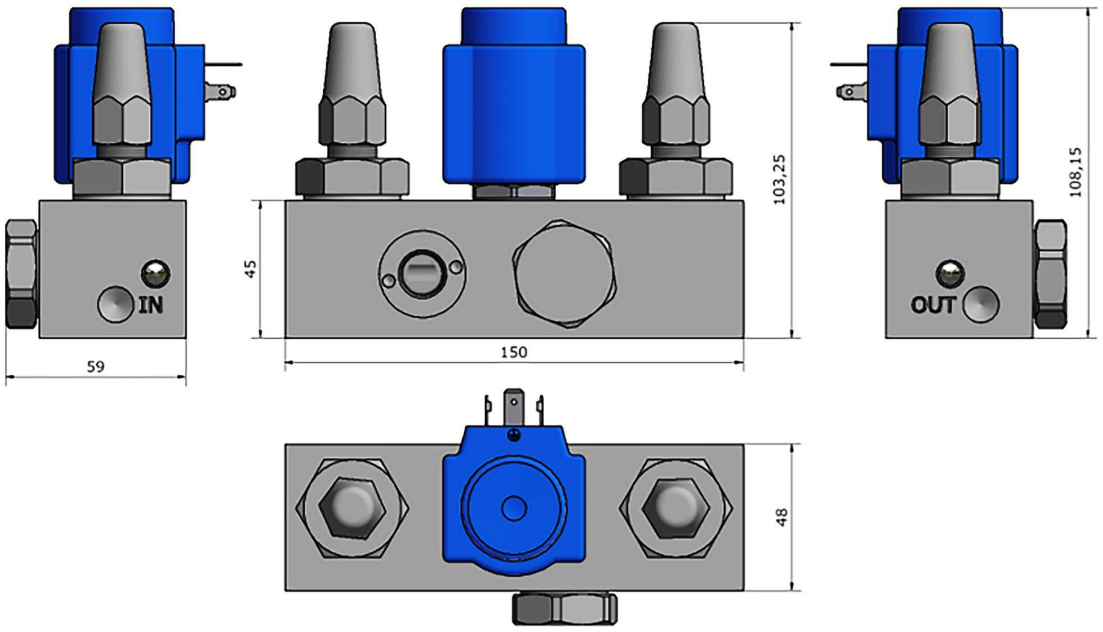
Table: Pressure range

Orifice size	Max. working pressure [bar]	Maximum opening differential pressure (MOPD) with standard coil (Δp bar)		k_v-value [1] [m^3/h]
		10 W AC	20 W DC	
Ø1,25 (032F6324)	52	35	35	0,05
Ø1,7 (Standard)	52	35	35	0,08
Ø2,3 (032F5228)	52	35	30	0,11
Ø3 (032F6325)	52	35	20	0,12

[1] The k_V value is the water flow in m^3/h at a pressure drop across valve of 1 bar, ρ = 1000 kg/m^3

Dimensions

Figure: EVRB Dimensions & weights



Weight ~ 2.6 kg / 5.7 lb

Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Export Control Declaration	Solenoid valves	Danfoss	
Mechanical Safety Certificate	UL MH7648	UL - Underwriters Laboratories inc.	
EU Declaration	Danfoss EU 033F0688.AK	Danfoss	LVD
Manufacturer's Declaration	Danfoss MD 033F0691.AJ	Danfoss	EU RoHS
Manufacturer's Declaration	Danfoss MD 033F0686.AS	Danfoss	PED

Contact details

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