Data sheet



Regulating Combi Valve, FHV

FHV regulating valve

Description

FHV control valves are ideally suited for controlling the temperature of individual under-floor heated rooms and for systems using floor heating in conjunction with radiators.

Features & benefits

- Affordable way of controlling a single room with floor heating especially with conjugation with radiators
- Two types of control strategies; room air temperature or water return temperature
- FHV control valves can be integrated with already existing accessories
- Easy and fast pre-setting that requires no tools
- Compact in-wall design
- Perfectly suitable for renovations

Applications

Danfoss offers the following versions:

- FHV-A control valves are ideally suited to control individual underfloor heated rooms. The FHV-A is placed on the supply side of a floor heating system, and is capable of providing hydraulic balancing via the FHV-A's integral pre-setting feature. In controlling the room air temperature, a standard RA 2000 operator is fitted to the FHV-A valve.
- FHV-R valves are designed for systems using floor heating in conjunction with radiators. The valve is placed on the return side of the radiant floor system. The valve's operator, FJVR, senses the return fluid temperature of the system and regulates the valve appropriately. When the FHV-R is used for a radiant heating system, the maximum floor heated area should not be greater than 10 m^2.

The connections on the valve are ¾" Eurocone connections compatible with Danfoss compression fittings.

Note:
If using the FHV for room temperature control, the flow temperature should not be permitted to exceed the maximum recommended by the floor heating supplier.

Ordering

Product code numbers

Type	Description	Code number
FHV-R	FHV-FJVR Floor heating valve	003L1000
FHV-A	FHV-A floor heating valve for RA 2000 sensors	003L1001
FHV-R	FHV-R for FJVR, round	003L1015

Accessories code numbers



013G4163

Compression fittings for PEX plastic tubings, G 3/4", 16x2.2, Nickel plated

PEX fittings for pipe 16 x 2,2 mm

Related products

003L1000 003L1001 003L1015



013G4191

Compression fittings for Alupex tubings, G 3/4", 20x2.5, Nickel plated

Alupex fittings for pipe 20 x 2.5 mm

Related products

003L1000 003L1001 003L1015



013G4188

Compression fittings for Alupex tubings, G 3/4", 18x2, Nickel plated

Alupex fittings for pipe 18 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4159

Compression fittings for PEX plastic tubings, G 3/4", 18x2.5, Nickel plated

PEX fittings for pipe 18 x 2.5 mm

Related products

003L1000 003L1001 003L1015



003L1036

FJVR 17,9 mm extention pice

FJVR 17,9 mm extention pice

Related products

003L1000 003L1015



013G4190

Compression fittings for Alupex tubings, G 3/4", 20x2, Nickel plated

Alupex fittings for pipe 20 x 2 mm

Related products

003L1000 003L1001 003L1015



003L1040

Return temperature limiters, FJVR Sensor, 10 °C - 50 °C, Sensor type: Built-in sensor

Return temperature limiter sensor, type FJVR, should be combined with FJVR valve

Related products

003L1000 003L1015



013G4156

FH Pipes, Fittings, Compression fitting, Connection size: 3/4", Connection diameter side 1 [mm]: 16, Connection diameter side 2 [mm]: 0

PEX fittings for pipe 16 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4160

FH Pipes, Fittings, Compression fitting, Connection size: 3/4", Connection diameter side 1 [mm]: 20, Connection diameter side 2 [mm]: 0

PEX fittings for pipe 20 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4157

Compression fittings for PEX plastic tubings, G 3/4", 16x1.5, Nickel plated

PEX fittings for pipe 16 x 1.5 mm

Related products

003L1000 003L1001 003L1015



013G4155

Compression fittings for PEX plastic tubings, G 3/4", 15x2.5, Nickel plated

PEX fittings for pipe 15 x 2.5 mm

Related products

003L1000 003L1001 003L1015



013G4162

Compression fittings for PEX plastic tubings, G 3/4", 17x2, Nickel plated

PEX fittings for pipe 17 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4093

FH Pipes, Fittings, Compression fitting, Connection size: 3/4", Connection diameter side 1 [mm]: 20, Connection diameter side 2 [mm]: 0

Alupex fitting G3/4" x 20 x 2.25/2.3 mm

Related products

003L1000 003L1001 003L1015



013G4187

Compression fittings for Alupex tubings, G 3/4", 16x2.25, Nickel plated

Alupex fittings for pipe 16 x 2.25 mm

Related products

003L1000 003L1001 003L1015



013G4184

Compression fittings for Alupex tubings, G 3/4", 14x2, Nickel plated

Alupex fittings for pipe 14 x 2 mm

Related products

003L1000 003L1001 003L1015



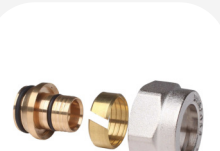
013G4186

FH Pipes, Fittings, Compression fitting, Connection size: 3/4", Connection diameter side 1 [mm]: 16, Connection diameter side 2 [mm]: 0

Alupex fittings 3/4" x 16 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4158

Compression fittings for PEX plastic tubings, G 3/4", 18x2, Nickel plated

PEX fittings for pipe 18 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4152

Compression fittings for PEX plastic tubings, G 3/4", 12x2, Nickel plated

PEX fittings for pipe 13 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4154

Compression fittings for PEX plastic tubings, G 3/4", 14x2, Nickel plated

PEX fittings for pipe 14 x 2 mm

Related products

003L1000 003L1001 003L1015



013G4161

Compression fittings for PEX plastic tubings, G 3/4", 20x2.5, Nickel plated

PEX fittings for pipe 20 x 2.5 mm

Related products

003L1000 003L1001 003L1015



015G4595

Danfoss Aero® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 28 °C, RA

Danfoss Aero™ thermostatic sensor for Danfoss RA valves.

Related products

003L1001



015G4090

Danfoss Aveo® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 28 °C, RA

Danfoss Aveo™ thermostatic sensor for Danfoss RA valves. Tactile feedback for improved user experience.

Related products

003L1001



003L1035

RA 17,9 mm extention piece

RA 17,9 mm extention piece

Related products

003L1001



013G1236

Accessories, Sensors, Toolkit, Aero; Aveo; RA snap, white

Toolkit comprising Allen key & locking pin tool

Related products

003L1001



015G4580

Danfoss Aero® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 28 °C, RA

Danfoss Aero™ thermostatic sensor for Danfoss RA valves. Theft protection included.

Related products

003L1001



015G4594

Danfoss Aero® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 28 °C, RA

Danfoss Aero™ thermostatic sensor for Danfoss RA valves.

Related products

003L1001



015G4098

Danfoss Aveo® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 26 °C, RA

Danfoss Aveo™ thermostatic sensor for Danfoss RA valves. Tactile feedback for improved user experience.

Related products

003L1001



015G4590

Danfoss Aero® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 28 °C, RA

Danfoss Aero™ thermostatic sensor for Danfoss RA valves.

Related products

003L1001



015G4290

Danfoss Aveo® Sensors, Standard, Gas, Sensor type: Built-in sensor, 7 °C - 28 °C, RA

Danfoss Aveo™ thermostatic sensor for Danfoss RA valves. Tactile feedback for improved user experience.

Related products

003L1001



013G5245

Accessories, Sensors, Anti-theft protection, Aero; Aveo; RA snap, white

Anti-theft plug for snap-lock sensors, white

Related products

003L1001

Spare parts code numbers



003L1387

Service insert for FJVR 15 / FHV-R valves

Service insert for FJVR 15 / FHV-R valves

Related products

003L1000 003L1015



013G0290

Accessories, Valves, Gland seal, For valves: RA; MIO

Gland seal for Radiator valves

Related products

003L1000 003L1001 003L1015



003L1050

Round front cover for FHV-R / FHV-A valves

Round front cover for FHV-R / FHV-A valves

Related products

003L1000 003L1001 003L1015



013G1246

Accessories, Sensors, Limiting pins, Aero; RA 2000; Aveo

Limiting pins for sensors (10 pcs.)

Related products

003L1001



003L1388

FHV-A Service insert

FHV-A Service insert

Related products

003L1001

Overview

System architecture

Figure: Floor heating system, heating circuit with FHV-A in flow.

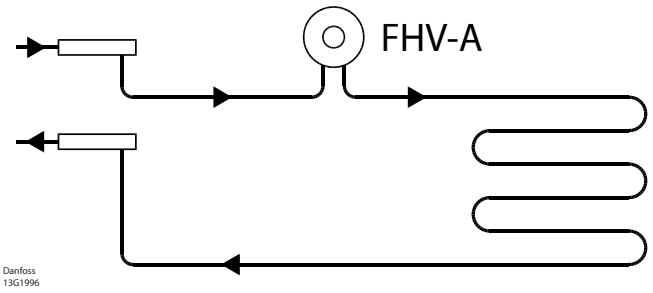
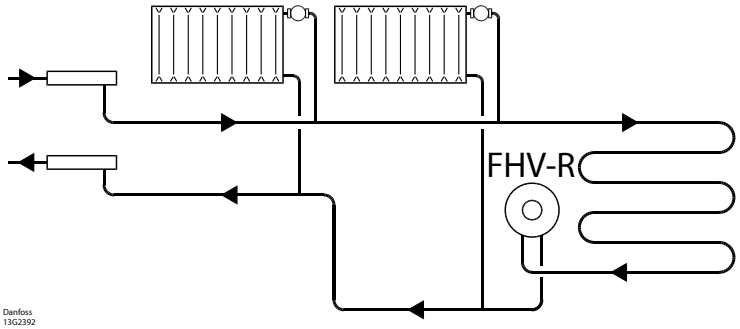


Figure: Floor temperature control of mixed system, heating circuit with FHV-R in return.



Functions

Presettings

Danfoss pre-settable valve bodies incorporate easy-to-use adjustment rings with clearly engraved setting markers scaled from 1 - 7 and N. The preset level can be selected in 0.5 increments between 1 and 7 (see capacity diagram for flow rates). At setting N the valve is fully open (flushing option).



Setting values can be set quickly and precisely without any tools:

1. Remove protective cap or sensor element.
2. Lift setting ring.
3. Turn anti-clockwise to the desired engraved setting value.
4. Allow setting ring to spring back into position.

Product details

General data

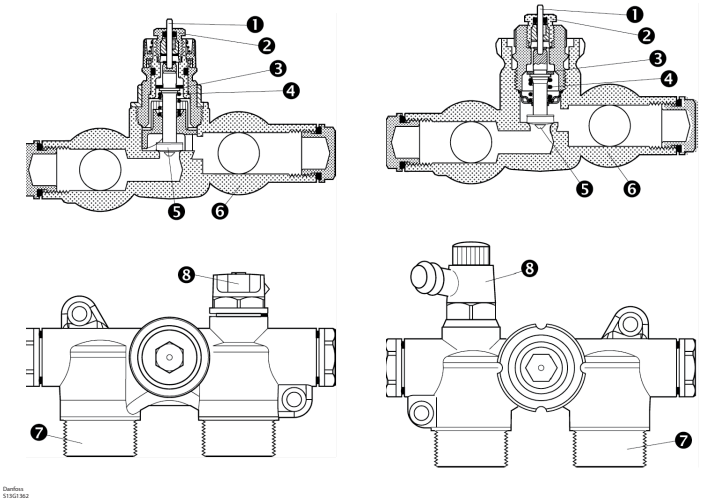
Table: Technical Specifications

Type	Connection	k_{vs} [m^3/h]	Max. pressure			Max. flow temp.
			Working	Differential	Test	
FHV-R	G¾A	0.88	6 bar	0.6 bar	10 bar	90 °C
FHV-A	G¾A	0.04 - 0.79	6 bar	0.6 bar	10 bar	90 °C

Design

FHV-A

FHV-R



1. Pressure pin
2. Gland seal
3. O-ring seal
4. Return spring
5. Valve cone
6. Valve body
7. Connections G¾A
8. Air vent

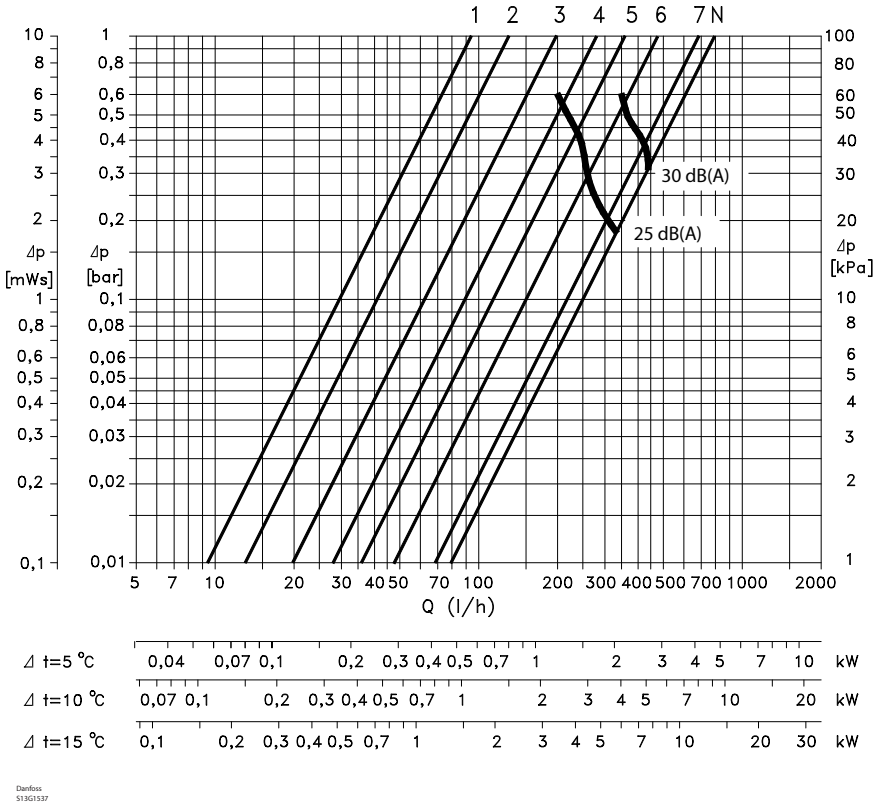
Materials in contact with water

Setting cylinder	PPS
Spindle	Ms, resistant against de-zincification
O-ring	EPDM
Valve cone	NBR
Pressure pin, valve spring	Chrome-plated steel
Other metal parts	Ms 58

Capacity

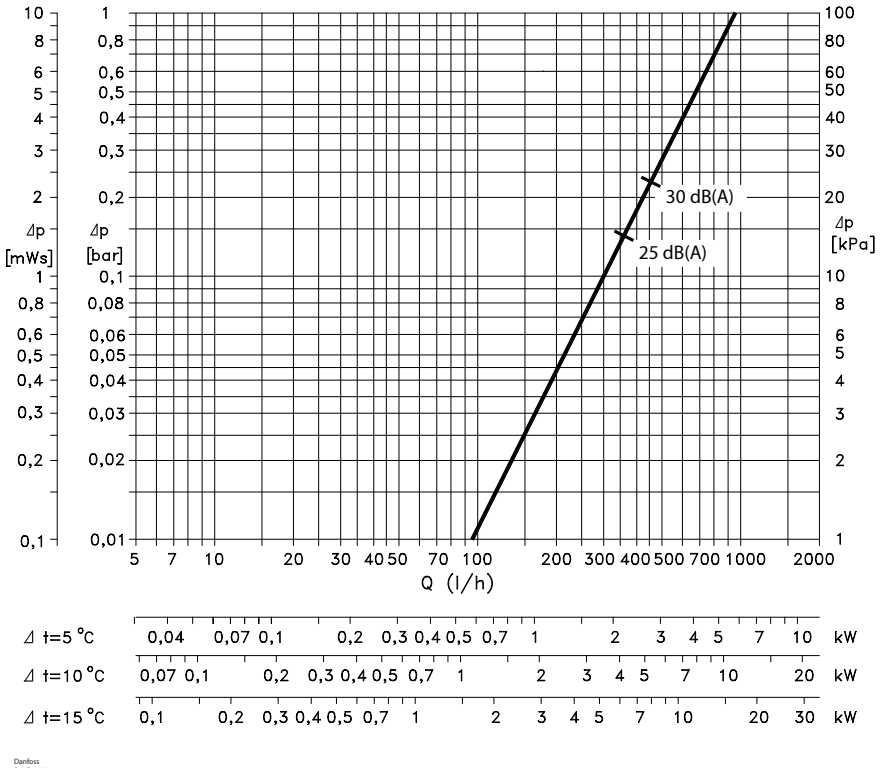
Capacity Diagram

Figure: FHV-A & FHV-W



FHV-A with RA2000 sensor at P-band between 0.5 K and 2 K.

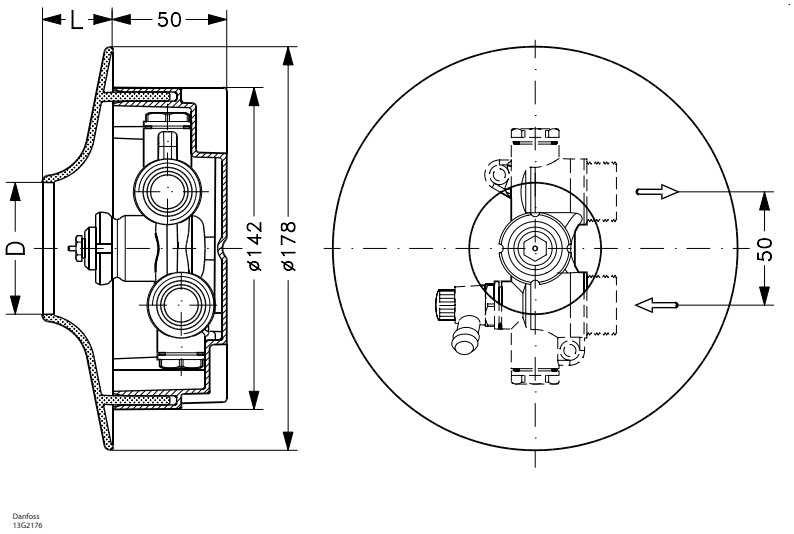
Figure: FHV-R



FHV-R with FJVR return temperature sensor.

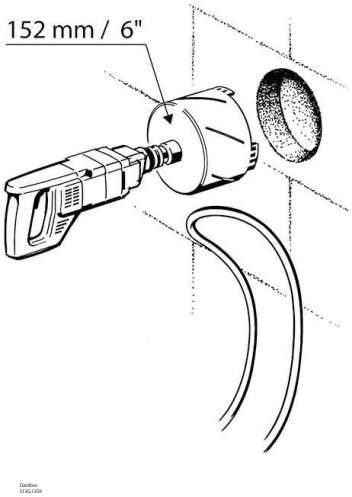
Dimensions

L = 31 and D = 58

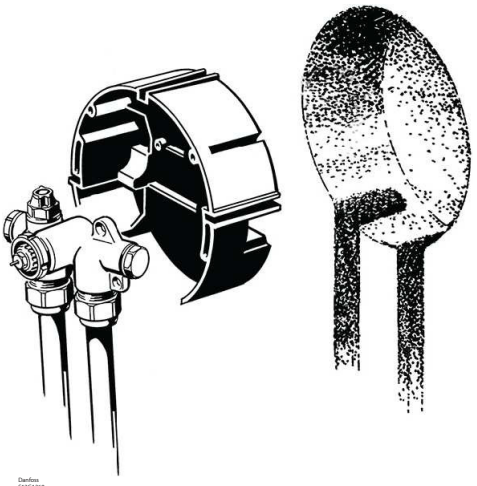


All dimensions are in mm

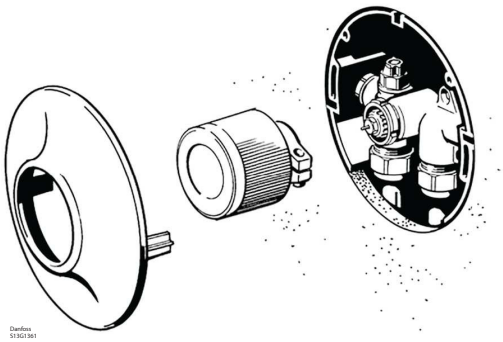
Installation



FHV valves are equally suited for installation in solid and partition walls.



All connections are made within the wall enclosure box.



Sensor and cover are simply plugged on.

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	FHV	Danfoss	
EAC Declaration	EAC KZ 7100841.13.12.02361	EAC - Eurasian Customs Union	MD
UA Declaration	Danfoss UA 2023-01-23 MTC ASV RA FH RAX PL03 PL28	Danfoss	Pressure, PED
UA Declaration	1) Declaration of shut-off and regulating valves, balancing, temperature regulating valves and collectors	Danfoss	Pressure
Electrical Safety Certificate	EAC KG417_033.DK.02.00793	EAC - Eurasian Customs Union	LVD, EMC

Contact details

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Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.

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Danfoss Partner Portal/Product Data tool

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