

Frese EVA Highflow- on/off control & automatic balancing valve

Application

Frese EVA Highflow is a valve particularly designed for the balancing of cooling and heating units. With its simple on/off control the valve can be used for many different applications, and at the same time advantage is derived from the dynamic control principles.

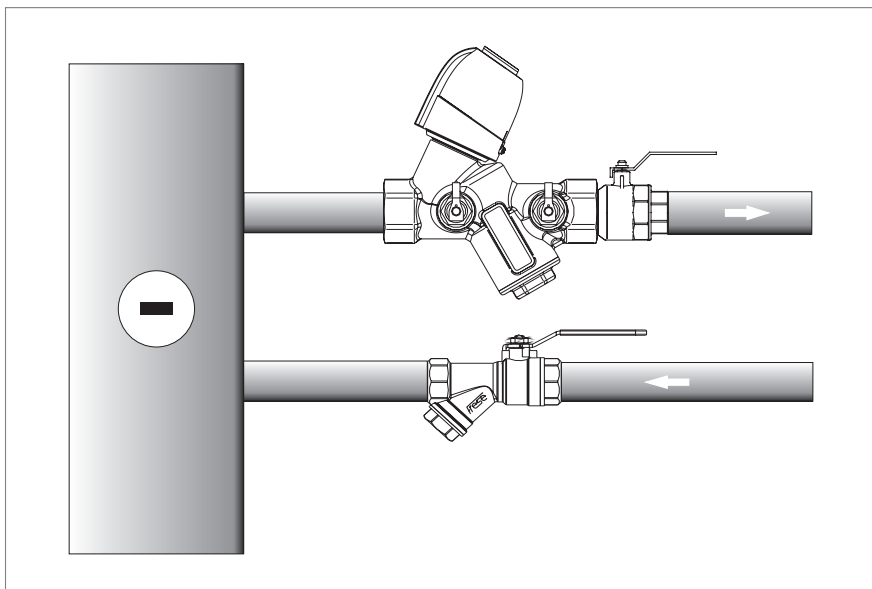
By means of Frese EVA Highflow the optimum flow rate is ensured in each control area. This flow rate is maintained in spite of pressure fluctuations in the system. A control area may be two fan coils for a hotel room or a calorifier for a sports centre.



Frese EVA Highflow female/female.

Advantages

- Two valves in one. Replaces both the normal static valve (DRV) and two way valve.
- No requirement on pipe lengths before and after the valve.
- Small compact product.
- Time consuming adjustment of the system is eliminated.
- The valve automatically ensures the hydraulic balance, regardless of changing pressure conditions in the system.
- Built-in on/off function for electrically operated actuator (normally closed).
- The valve can easily be fitted into the system.
- Integral optional P/T plugs for needle system.



Frese EVA Highflow- can be installed in either the supply or return line of the cooling-/ heating unit.

Frese EVA Highflow- on/off control & automatic balancing valve

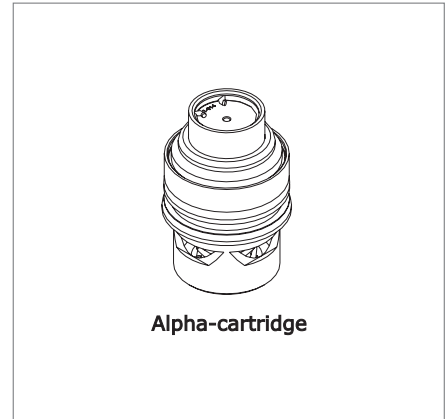
Function

The balancing occurs by means of a flow rate cartridge that keeps the differential pressure constant across an orifice.

In the wanted control range the pump supplies sufficient differential pressure to affect the spring and diaphragm of the cartridge.



Frese EVA Highflow ensures the optimum flow in each control zone to maintain the rated heat transfer. This flow is maintained regardless of pressure fluctuations in the system.


See cartridge catalogue for further details.




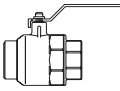
Product programme

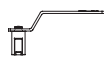
Frese EVA	w. P/T-plugs	w. P/T-plugs bulk	Plugs	Plugs bulk
DN15	48-5800	48-5810	48-5803	48-5813
DN20	48-5801	48-5811	48-5804	48-5814
DN25	48-5802	48-5812	48-5805	48-5815

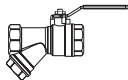
	Actuator on/off, normally closed
24V	48-5515
230V	48-5518
	Extension piece for actuator
h= 20 mm	48-5557

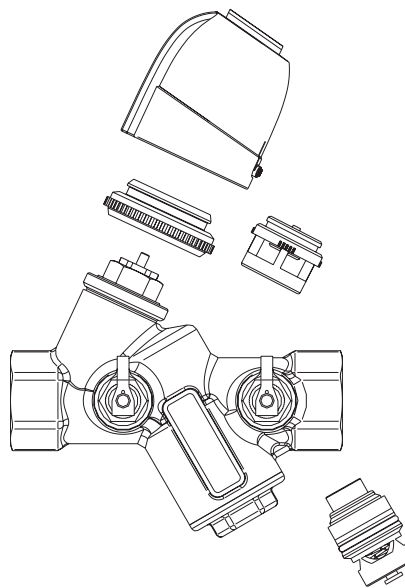
P/T-plugs		
1"	48-0012	
2"	48-0013	

Cartridge		
Ref. separate catalogue		

Ball valve F/M with handle		
DN15	38-5020	
DN20	38-5022	
DN25	38-5024	

Spindle extension		
DN15-20	46-1072	
DN25	46-1073	

Strainer Ball Valve		
DN15	38-5040	
DN20	38-5041	
DN25	38-5042	

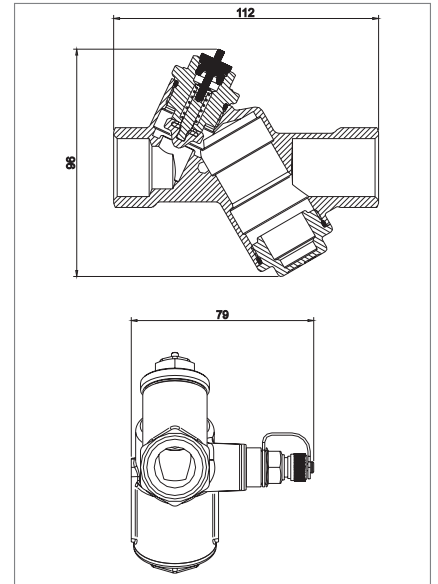


Frese EVA Highflow- on/off control & automatic balancing valve

Technical data

Valve housing:	Hot stamped brass
O-rings:	EPDM
Pressure range:	7 - 410 kPa
Flow range:	See cartridge Catalogue
Pressure class:	PN25
Temperature of the medium:	0 to +95°C
Ambient temperature:	0 to +50°C
Weight:	0.66 kg
Kvs:	3,0 m ³ /hr

Glycolic mixtures in any proportion are applicable (both ethylene and propylene).

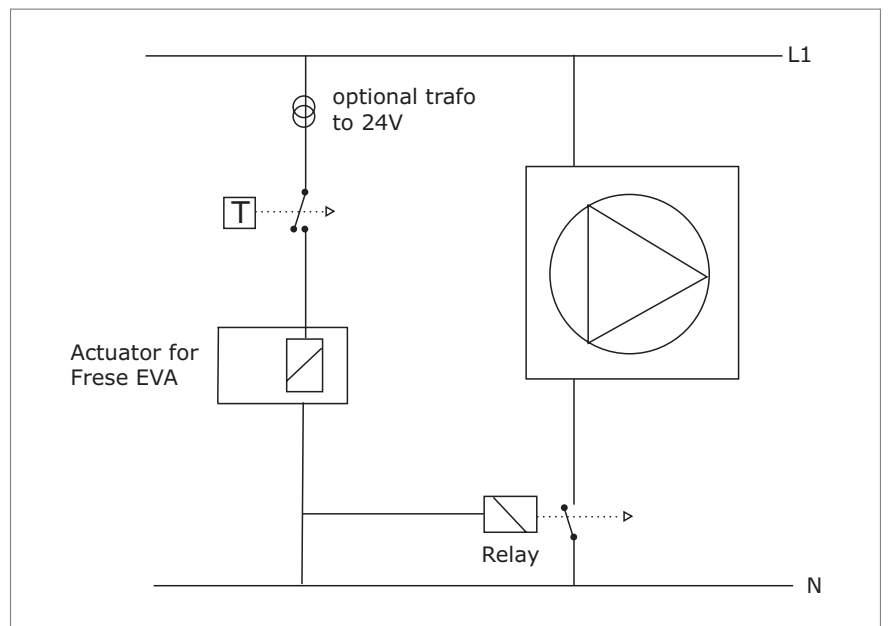


Electric Diagram

Example:

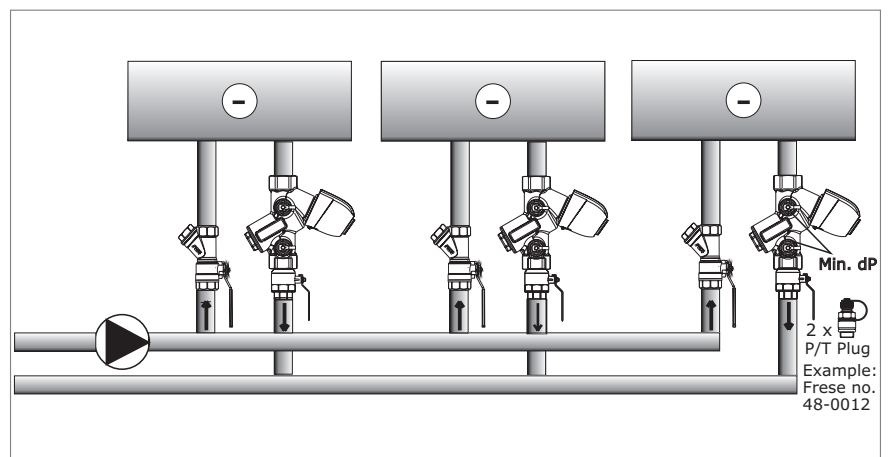
You may let the valve signal run the fan engine of the unit, so that the fan engine is not running when the valve is closed.

The valve is "normally closed". The power consumption of the actuator is 2 Watt.



Application Example

The system is easily adjusted by adjusting the pump in accordance with the required differential pressure across the critical valve. When this differential pressure is achieved, the system will automatically be balanced. Min. differential pressure = the lower limit of the operating range of the Alpha flow cartridge plus the pressure drop of the EVA Highflow valve at design flow. See Alpha cartridge technote for required min. pressure of the cartridge



Frese EVA Highflow- on/off control & automatic balancing valve

Technical specifications

The valve should be made of hot forged brass and should operate by means of a cartridge, that is readily accessible without dismantling the valve from the piping system.

The pressure range of the valve should be PN 25.

The Kvs of the valve should be 3.0 m³/hr.

With the actuator fitted the valve should operate in the temperature range between 0°C and 50°C (ambient temperature).

Product programme

Frese EVA DN15 w. P/T plugs	48-5800
Frese EVA DN20 w. P/T plugs	48-5801
Frese EVA DN25 w. P/T plugs	48-5802
Frese EVA DN15 w. plugs	48-5803
Frese EVA DN20 w. plugs	48-5804
Frese EVA DN25 w. plugs	48-5805
Actuator 24V	48-5515
Actuator 230V	48-5518
Extension piece for actuator	48-5557
Ball valve F/M with handle DN15	38-5020
Ball valve F/M with handle DN20	38-5022
Ball valve F/M with handle DN25	38-5024
Strainer Ball Valve DN15	38-5040
Strainer Ball Valve DN20	38-5041
Strainer Ball Valve DN25	38-5042
Spindle extension DN15-20	46-1072
Spindle extension DN25	46-1073

Frese A/S assumes no responsibility for errors, if any, in catalogues, brochures, and other printed matter. Frese A/S reserves the right to modify its products without prior notice, including already ordered products, if this can occur without changing already stated specifications. All registered trade marks in this material are the property of Frese A/S. All rights reserved.

Frese A/S
 Sorøvej 8
 DK-4200 Slagelse
 Tel +45 58 56 00 00
 Fax +45 58 56 00 91
 frese@frese.dk
 www.frese.eu