

Frese MODULA Direct Bypass Unit

Description

Frese MODULA Direct is a versatile valve system that combines the Frese range of OPTIMA Compact pressure independent control valves with isolation, flushing, draining and measurement components within a prefabricated, tested and ready to install terminal bypass unit.

The MODULA Direct is supplied with an integral venturi metering station for accurate flow verification.

Each unit is also supplied with isolation valves, combi-drains, P/T plugs, integral venturi metering station and the Frese OPTIMA Compact PICV for flow, temperature and pressure control.

The MODULA Direct has been designed in accordance with the design guidelines from BSRIA for terminal unit installations.

Application

For direct mounting to terminal units in heating and cooling applications.

Benefits

Design benefits

- Fitted with OPTIMA Compact PICV
- Venturi metering station for flow measurement

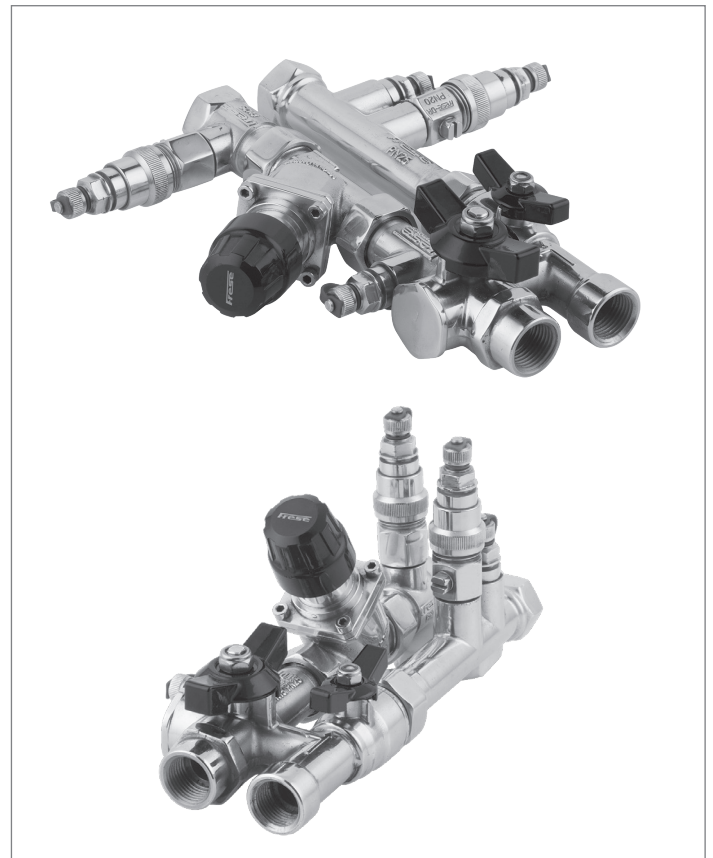
Installation benefits

- Can be mounted directly to a terminal unit
- Compact design for installations with limited space
- Minimized installation and commissioning costs
- Allows easy flushing and coil isolation
- Available in left hand and right hand versions
- Fits directly over standard drip trays

Operation benefits

- High comfort with minimized operation and maintenance costs
- Efficient flow, temperature and pressure control
- 4 modes of operation (see pages 4 and 5)

For further information on the Frese OPTIMA Compact PICV, please refer to the relevant technote



Features

- Integral Venturi metering station for accurate flow verification. Kv-signal values: 0.198 - 0.598 - 1.394 - 2.361
- Available in DN15
- Supplied with the Frese OPTIMA Compact PICV
- Compact 40mm supply/return centres
- Integrated union joints for easy valve alignment
- T-handle isolation-valves for flow, return and bypass
- Drains on the flow and return
- PT plugs across the PICV to measure DP
- PT plug on the flow side for measuring the DP across the terminal unit
- Manufactured in DZR brass, CW602N

Frese MODULA Direct Bypass Unit

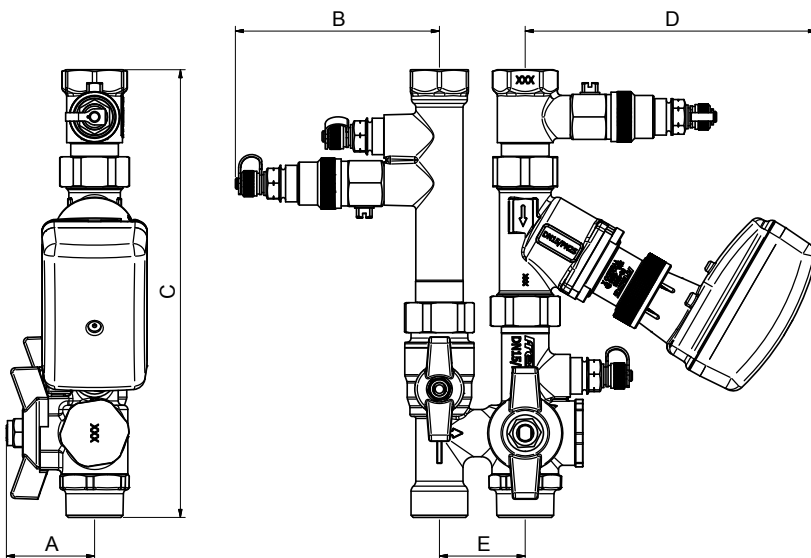
Technical data

Material: DZR Brass, CW602N
O-rings: EPDM
Pressure class: PN20
Medium temperature range: 0°C to 120°C

KV values (*Accuracy KV_{signal}: +/- 5%)

KV _{signal} *	KV _{max}
0.198	0.262
0.598	0.723
1.394	2.309
2.361	4.399

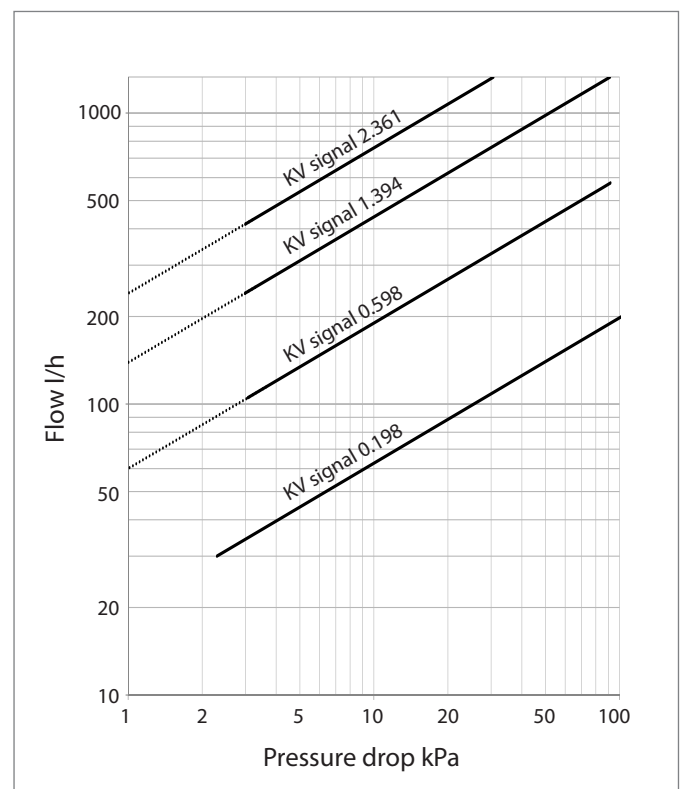
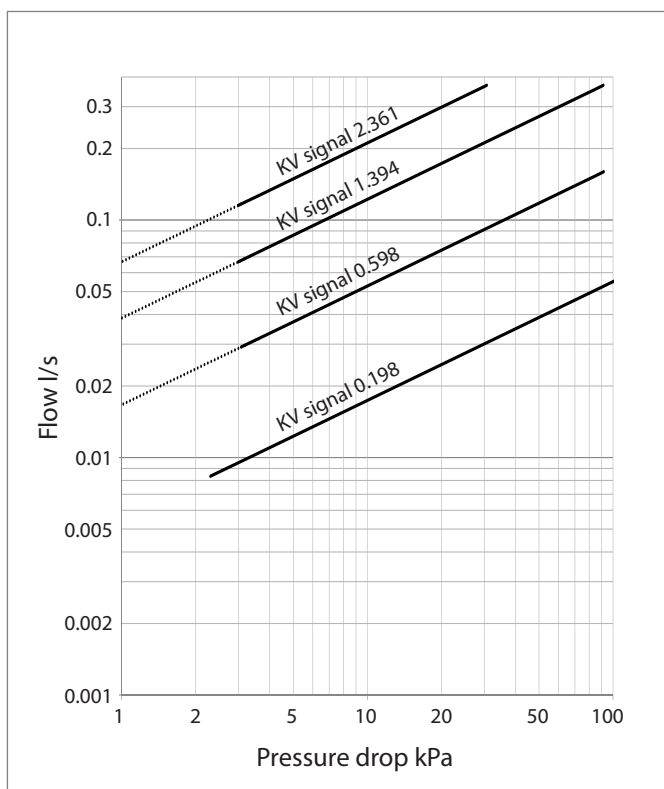
Dimensions



MODULA Direct

Dim	mm
A	41
B	95
C	209
D	136
E	40

Flow graphs for Venturi Metering station



Frese MODULA Direct Bypass Unit

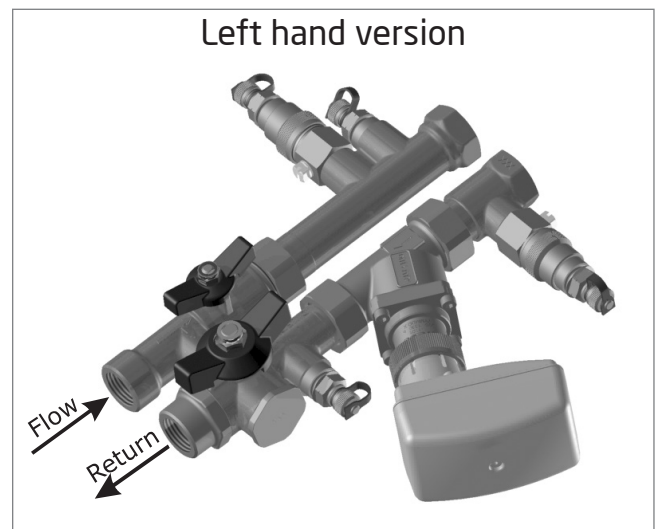
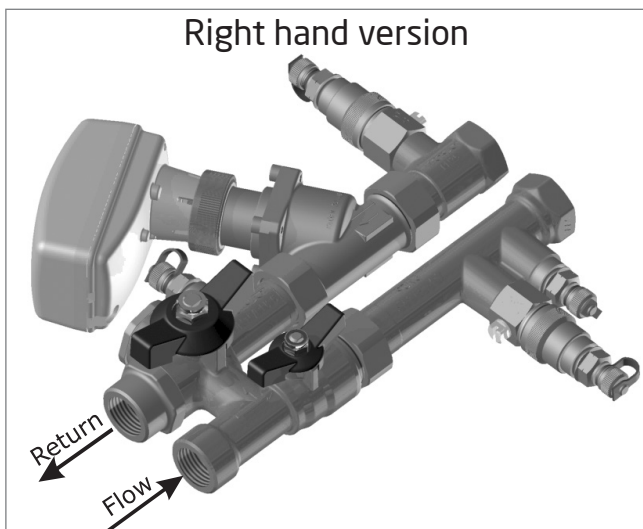
Product Code Builder

Please use the following table to select the components and build the MODULA Direct product code.

										59	MODULA Direct	
										7	Frese OPTIMA Compact	
										1	DN15 - 40mm (left hand version)	
										2	DN15 - 40mm (right hand version)	
										1	Combi P/T + drain	
										2	Without P/T Plugs on valve	
										L	Low Flow	
										H	High Flow	
										A	2,5 mm stroke	Venturi Metering Station Kv-value 0.198 - 0.598 - 1.394 - 2.361
										C	5.0 mm stroke	
59	X	-	X	X	-	X	-	X	-	X		
	Valve		Size/Center	Flow side component		Valve plug		PICV Flow/Pressure		PICV Stroke/Venturi Kv		

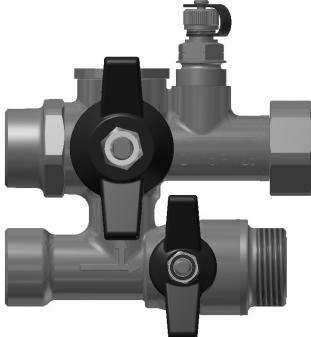
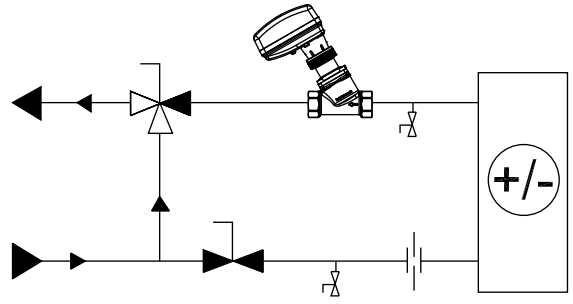
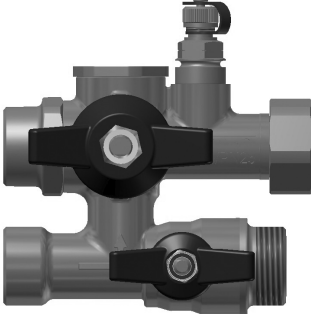
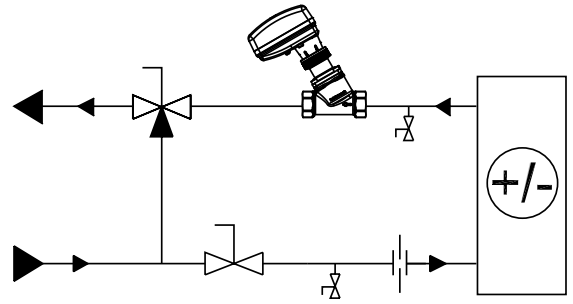
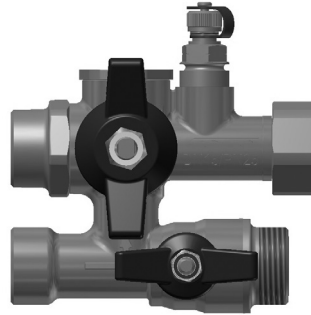
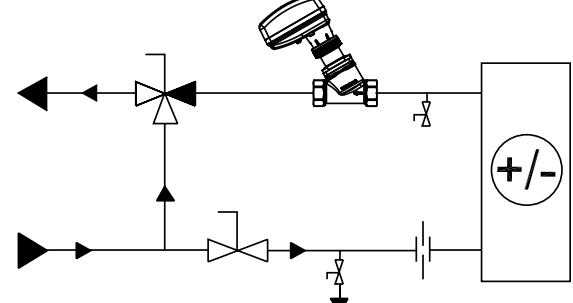
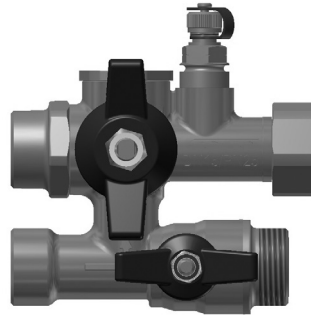
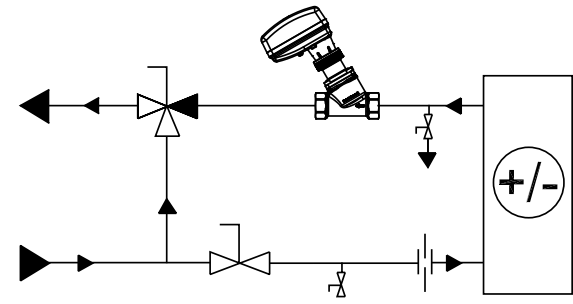
Example of product code: **597-11-2-LA-0.598**

Versions



Frese MODULA Direct Bypass Unit

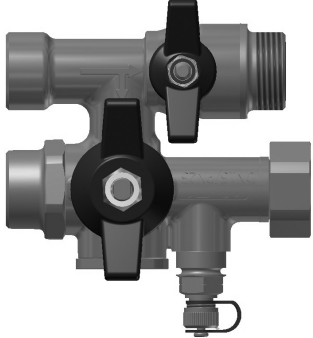
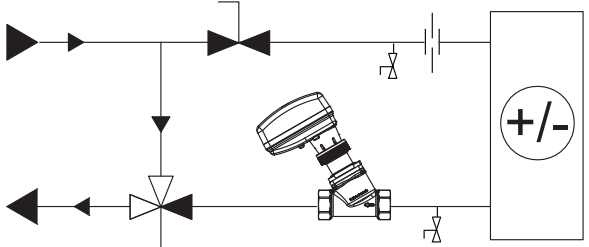
Modes of Operation - Right Hand Version

<p>Mode 1 Isolation & Flushing bypass</p>		
<p>Mode 2 Normal operation</p>		
<p>Mode 3 Forward flushing Step 1</p>		
<p>Mode 4 Forward flushing Step 2</p>		


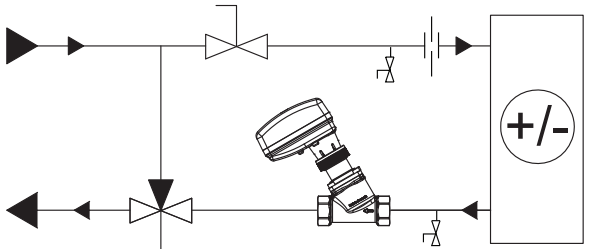
Frese MODULA Direct Bypass Unit

Modes of Operation - Left Hand Version


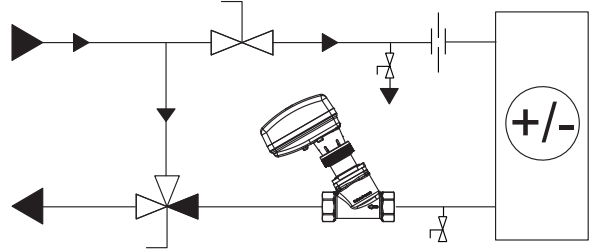
Mode 1
Isolation & Flushing bypass


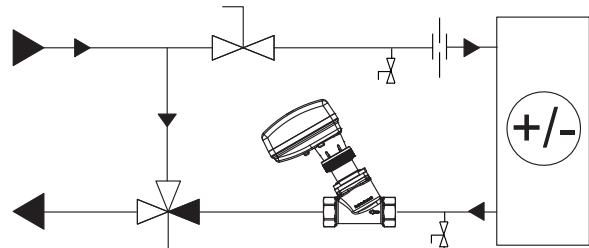
Mode 2
Normal operation

Mode 3
Forward flushing
Step 1

Mode 4
Forward flushing
Step 2

Frese MODULA Direct Bypass Unit

Specification Text - Frese MODULA Direct

The valve system shall combine a Frese OPTIMA Compact PICV with fixed 40mm centres between supply and return.

The valve system shall also include an integral Venturi metering station, isolation valves and combi-drains.

The valve system shall include a PT plug either side of the PICV.

The valve system shall include a drain on the flow and return.

The bypass unit shall have a pressure class of PN20.

The medium temperature shall be 0°C to 120°C.

All material shall be DZR brass, CW602N.

Venturi accuracy +/- 5%

The valve system shall be fitted with PT plugs that allow to:

1. Measure DP across the valve
2. Measure DP across the coil
3. Verify flow

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 does not alter existing specifications. All registered trademarks 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
info@frese.dk

