

MODULA

Description

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

MODULA integrates one of the following Frese valve solutions:

- OPTIMA Compact (Pressure Independent Control Valve - PICV)
- ALPHA (Dynamic Flow Limiting Valve)
- SIGMA Compact (Externally Adjustable Dynamic Flow Limiting Valve)
- EVA (combined Dynamic Flow Limiting and 2 Port On/off Valve)
- PV Compact (Adjustable Differential Pressure Control Valve)
- Frese STBV Range (Adjustable Manual Balancing Valve)

Each unit can be supplied with isolation valves, strainer, drain/hose connection & P/T plug.



Benefits

The MODULA Bypass Unit combines the many benefits of the OPTIMA Compact, ALPHA, SIGMA Compact, EVA, PV Compact and STBV range in addition to:

Installation benefits

- Compact design for limited space availability
- Minimized installation and commissioning costs
- Allows easy flushing and coil isolation
- Easy lagging of spindle extensions

Operation benefits

- High comfort with minimized operation and maintenance costs
- Efficient flow, temperature and pressure control
- 5 modes of operation (see pages 6 and 7)

For further information on the OPTIMA Compact, ALPHA, SIGMA Compact, EVA, PV Compact and STBV solutions, please refer to the relevant Technotes.

Features

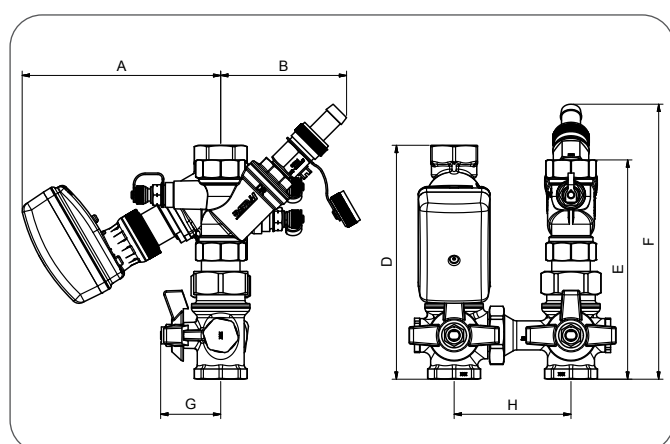
- Available in DN15, DN20 and DN25
- Available with 80 mm, 130 mm or 170 mm supply/return centres
- Integrated union joints for easy valve alignment
- Two T-handle isolation valves for flow, return and bypass
- Full flow valves on flow and return
- Spindle extensions available
- Combinations with strainer, drain/hose connection, P/T plug available
- P/T plug on the flow for measuring the DP across the terminal unit
- Metering station for flow verification

MODULA

Technical data

Material:	DZR Brass, CW602N
Filter:	Stainless Steel
O-rings:	EPDM
Pressure class:	PN25 (PN25 is delivered on request till the stock of the PN20 components is depleted).
Strainer mesh:	32 (0.5 mm)
Medium temperature range:	0°C to 120°C

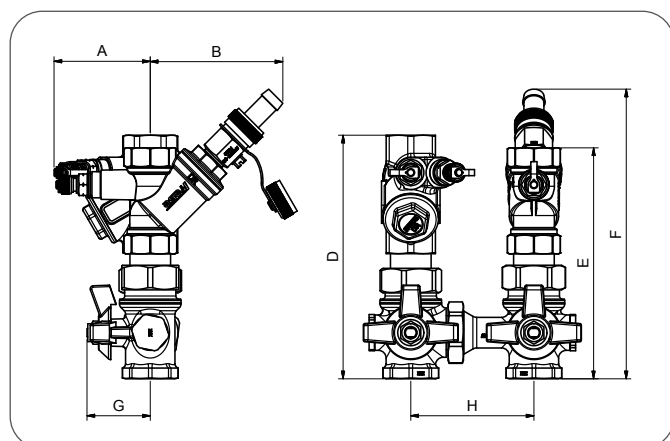
Dimensions



MODULA · OPTIMA Compact

mm	DN15	DN20	DN25	DN25L
A	117	117	120	135
B	74	86	92	92
D*	155/ 175	160/ 180	164/ 184	181/201
E	136	150	165	165
F	176	188	204	204
G*	41/ 88			
H	80/130/170			

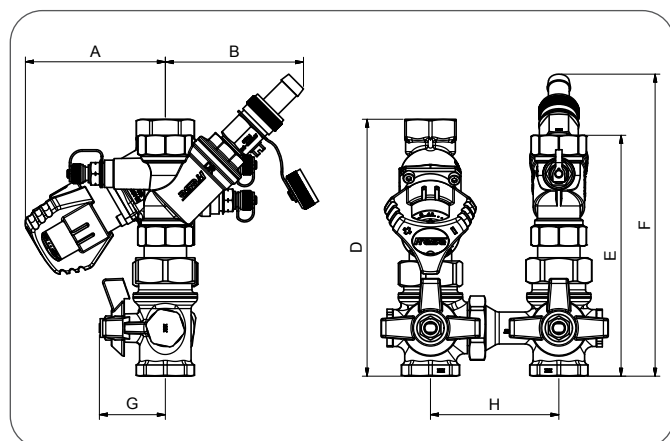
*) Std Handle/**Ext Handle**



MODULA · ALPHA

mm	DN15	DN20	DN25
A	63/ 102 (1"PT/ 2"PT)		
B	74	86	92
D	157	158	167
E	136	150	165
F	176	188	204
G*	41/ 88		
H	80/130/170		

*) Std Handle/**Ext Handle**



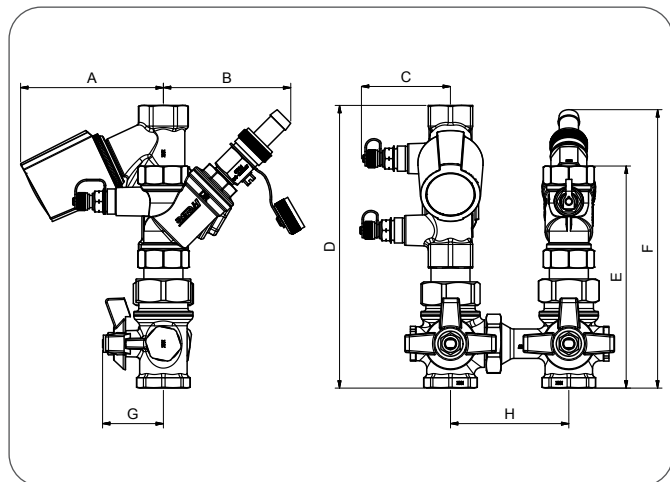
MODULA · SIGMA Compact

mm	DN15	DN20	DN25
A	87	87	110
B	74	86	92
D	155	160	166
E	136	150	165
F	176	188	204
G*	41/ 88		
H	80/130/170		

*) Std Handle/**Ext Handle**

MODULA

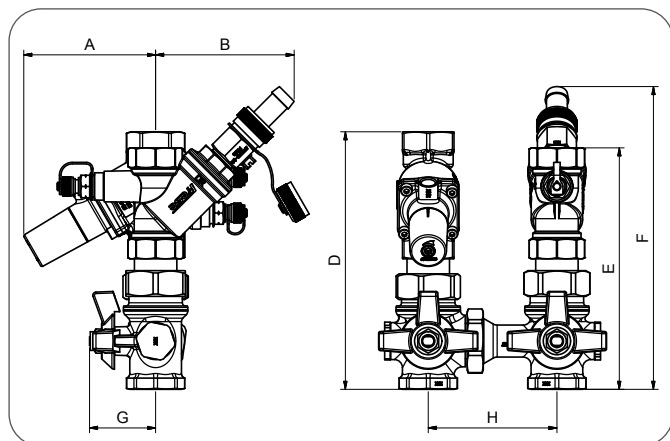
Dimensions



MODULA · EVA

mm	DN15	DN20	DN25
A	97		
B	74	86	92
C	61		
D	182	191	202
E	136	150	165
F	176	188	204
G*	41/88		
H	80/130/170		

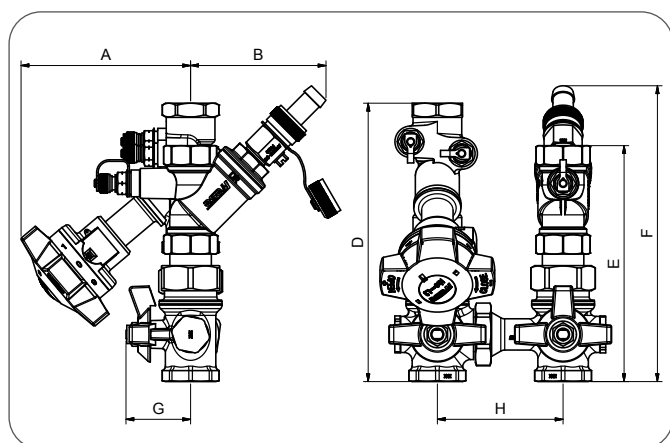
*) Std Handle/**Ext Handle**



MODULA · PV Compact

mm	DN15	DN20	DN25
A	82	82	134
B	74	86	92
D	155	160	166
E	136	150	165
F	176	188	204
G*	41/88		
H	80/130/170		

*) Std Handle/**Ext Handle**



MODULA · Frese STBV

mm	DN15	DN20	DN25
A	112	108	125
B	74	86	92
D	167	177	183
E	136	150	165
F	176	188	204
G*	41		
H	80/130/170		

*) Only std. handle possible

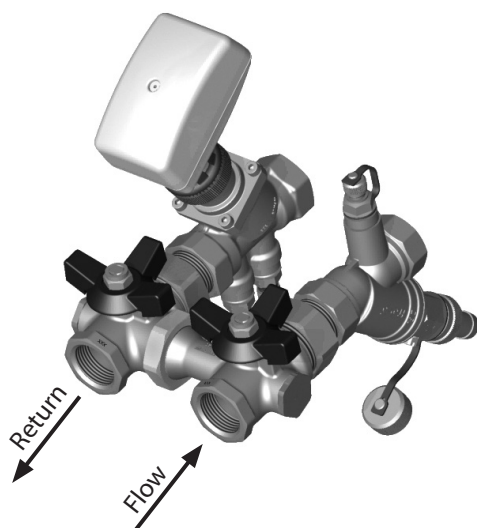
Product Code Builder

Example of product code: 587-12-1-LA-A

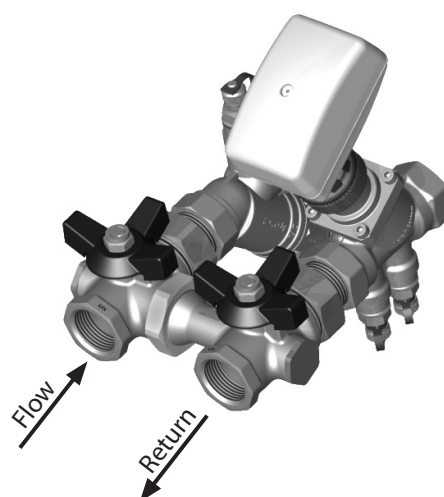
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Versions

Right hand version



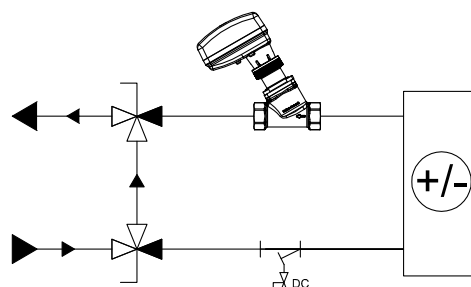
Left hand version



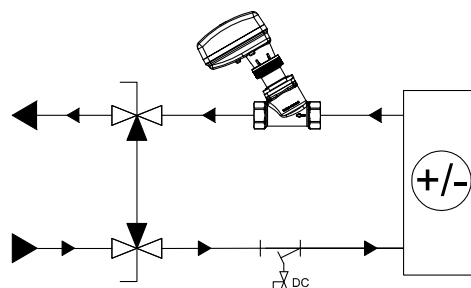
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Modes of Operation - Right Hand Version

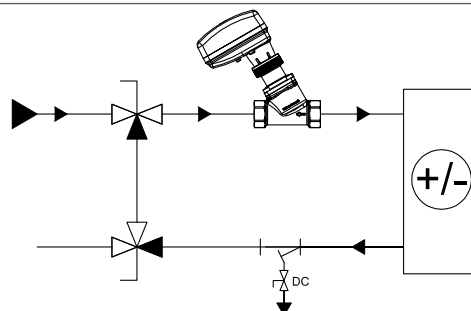
Mode 1
Isolation & Flushing bypass



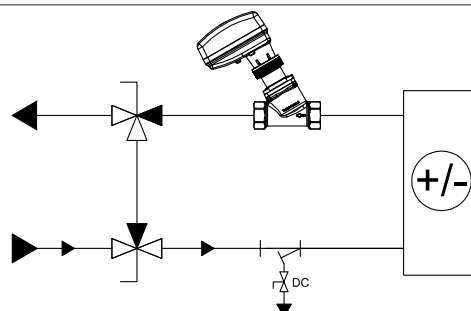
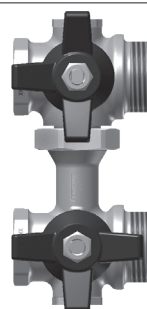
Mode 2
Normal operation



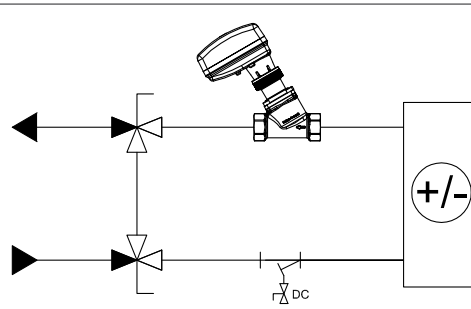
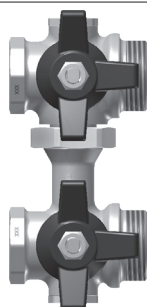
Mode 3
Back flushing



Mode 4
Forward flushing



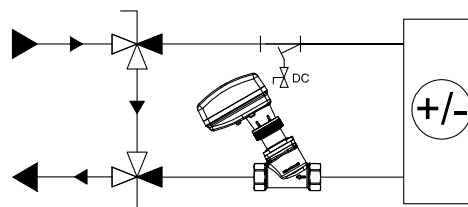
Mode 5
Isolation & Maintenance



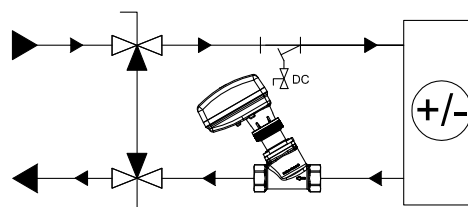
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Modes of Operation - Left Hand Version

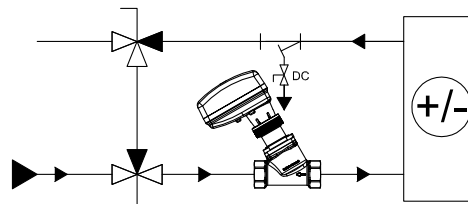
Mode 1
Isolation & Flushing bypass



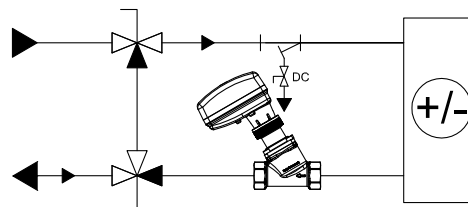
Mode 2
Normal operation



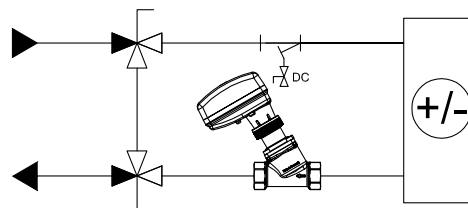
Mode 3
Back flushing



Mode 4
Forward flushing



Mode 5
Isolation & Maintenance



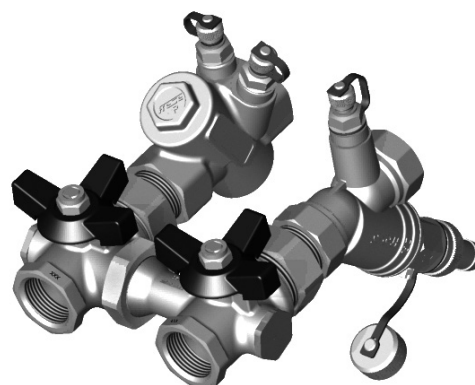
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MODULA Types (shown with standard handles)

MODULA • OPTIMA Compact



MODULA • ALPHA



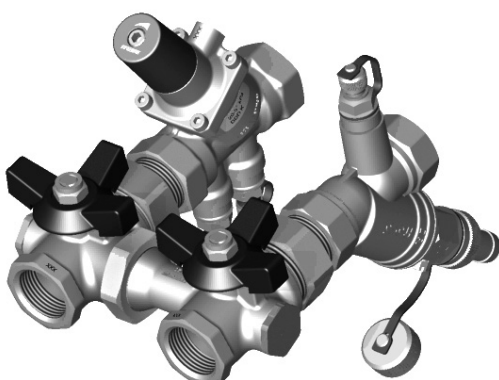
MODULA • SIGMA Compact



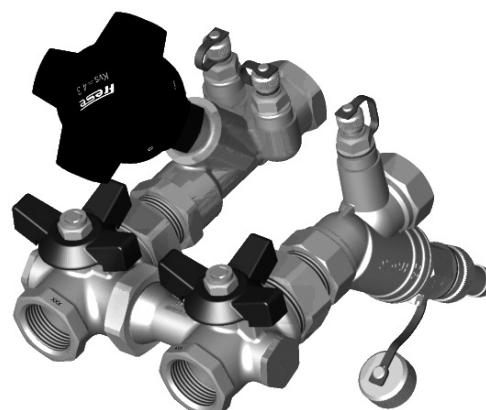
MODULA • EVA



MODULA • PV Compact




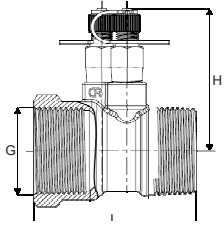
MODULA • Frese STBV




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Accessories

Metering station	Dimension	L [mm]	H [mm]	G
	DN15	60	57	1/2"
	DN20	62	60	3/4"
	DN25	68	64	1"



MODULA insulation*	MODULA type	MODULA dimension	Insulation Covers Frese no.
	Right	DN15	38-0865
	Left	DN20	38-0866
	Right	DN25	38-0867
	Left	DN25L	38-0868

*MODULA insulation covers are for MODULA with OPTIMA Compact PICVs only. For more details please refer to the MODULA Insulation Covers technote.

Frese Flexible Hose	Dimension	Length [mm]	Frese no.
	DN15	300	48-0050
		450	48-0051
		600	48-0052
	DN20	300	48-0053
		450	48-0054
		600	48-0055
	DN25	300	48-0056
		450	48-0057
		600	48-0058

For more details please refer to the Frese Flexible Hose technote.

Specification Text - MODULA

The valve system shall combine a dynamic or a static balancing valve with a fixed 80 mm, 130 mm or 170 mm distance supply/return component.

The bypass unit shall have two integral isolation valves and a PT Drain or PT strainer on the supply side.

The bypass unit shall have a pressure class of PN20.

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

All material shall be DZR brass, CW602N.

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