



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





Technical data

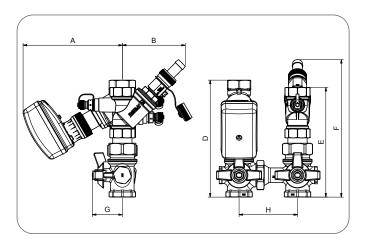
Material:DZR Brass, CW602NFilter:Stainless Steel

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

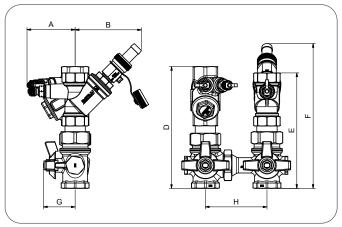
Dimensions



MODULA · OPTIMA Compact

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

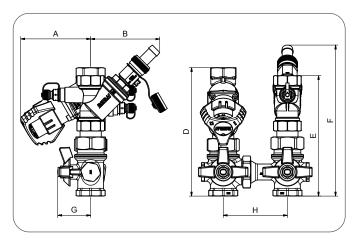
*) Std Handle/Ext Handle



$\mathsf{MODULA} \cdot \mathsf{ALPHA}$

DN15	DN20	DN25			
63/	102 (1"PT/2"	PT)			
74	86	92			
157	158	167			
136	150	165			
176	188	204			
41/ 88					
80/130/170					
	63/ ⁻ 74 157 136	63/ 102 (1"PT/ 2" 74 86 157 158 136 150 176 188 41/ 88			

^{*)} Std Handle/Ext Handle



MODULA · SIGMA Compact

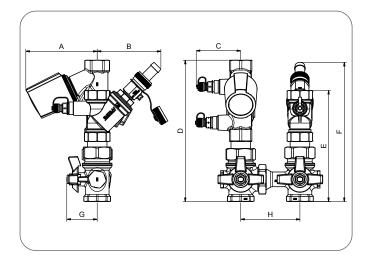
mm	DN15	DN20	DN25				
Α	87	87	110				
В	74	86	92				
D	155	160	166				
Ε	136	150	165				
F	176	188	204				
G*	41/ 88						
Н	80/130/170						

*) Std Handle/Ext Handle





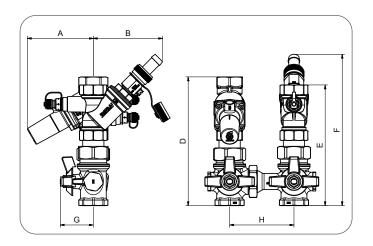
Dimensions



MODULA · EVA

		· ·				
mm	DN15	DN20	DN25			
Α		97				
В	74	86	92			
C		61				
D	182	191	202			
Е	136	150	165			
F	176	188	204			
G*	41/88					
Н	80/130/170					

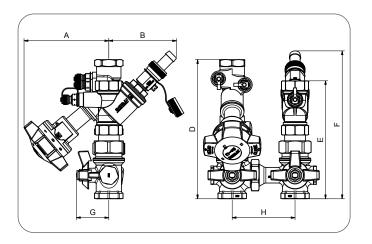
^{*)} Std Handle/Ext Handle



MODULA · PV Compact

mm	DN15	DN20	DN25				
Α	82	82	134				
В	74	86	92				
D	155	160	166				
Е	136	150	165				
F	176	188	204				
G*	41/ 88						
Н	80/130/170						

*) Std Handle/Ext Handle



MODULA · Frese STBV

mm	DN15	DN20	DN25			
Α	112	108	125			
В	74	86	92			
D	167	177	183			
Е	136	150	165			
F	176	188	204			
G*	41					
Н	80/130/170					

*) Only std. handle possible







Product Code Builder

								58	MODULA					
								2	ALPHA					
							-	3	EVA					
							-	7	OPTIMA Compact					
							-	V	OPTIMA Compact Veriflow*					
							-	8	SIGMA Compact					
							-	9	PV Compact					
							_	10	Frese STBV					
								1	DNI1E COmme	4	DN15 120mm	7	DN15 170	
							-	1	DN15 - 80mm DN20 - 80mm	5	DN15 - 130mm	7	DN15 - 170mm DN20 - 170mm	
							-	2 3	DN25L - 80mm	6	DN20 - 130mm DN25L - 130mm	8	DN25L - 170mm	
							-	A		В		_		
								1						
							-	2	T-piece with 1" P/T-plug + drain					
							-	3	Strainer with 1" P/T-plug + drai					
							-	4	Strainer with 1" P/T-plug + drai					
							-	5	T-piece with 1" P/T- plug/plug	,	se and extension name			
								6	T-piece with 1" P/T- plug/plug a	and e	xtension handle			
								7	Strainer with 1" P/T- plug/plug					
								8	Strainer with 1" P/T- plug/plug	and e	extension handle			
								9	Strainer extended with 1" P/T-p			handle		
	_							10	Extended T-piece with 1" P/T-p					
								Α	T-piece with 1" P/T-plug + drain	n and	hose (Left hand mount)			
								В	T-piece with 1" P/T-plug + drain			eft hand	mount)	
								C	Strainer with 1" P/T-plug + drai	Strainer with 1" P/T-plug + drain and hose (Left hand mount)				
							_	D	Strainer with 1" P/T-plug + drai	n, ho	se and extension handle (L	eft hand	l mount)	
							_	Е	T-piece with 1" P/T-plug/plug (Left hand mount)					
							_	F	T-piece with 1" P/T-plug/plug and extension handle (Left hand mount)					
							_	G	Strainer with 1" P/T-plug/plug					
							_	H	Strainer with 1" P/T-plug/plug					
							_	J	Strainer extended with 1" P/T-p					
							-	K	Extended T-piece with 1" P/T-p					
							-	X Y	Coupling with male connection		_ ·			
								ı	Coupling with male connection	11 100	sely mounted on right side.	. exterisi	on nancies	
							_	1	1" P/T Plugs on valve					
							_	2	2" P/T Plugs on valve					
							_	3	Plug					
								4	Without P/T Plugs on valve					
								L	Low					
							_	Н	High					
								Α	2,5 mm stroke (for OPTIMA Cor	mpac	t)			
								C	5,0 mm stroke (for OPTIMA Cor		<u></u>	K	(vs (for STBV)	
						_		D	5,5 mm stroke (for OPTIMA Cor	mpac	t)			
								Α	Couplings on piping side					
							_	B	Metering station DN15UL Kvs \	/entu	ri 0.55 - 0.017-0.045 l/s (K	v total· 0	1.61)**	
							_	C	Metering station DN15L Kvs Ve					
								D	Metering station DN15 Kvs Ven					
								Е	Metering station DN20 Kvs Ven					
								F	Metering station DN25 Kvs Ven	turi 9	9.72 - 0.258-0.603 l/s, (Kv to	otal: 13.6	51)**	
						Ш		G	Metering station DN15XUL Kvs	Vent	uri 0.263 - 0.0075-0.023 l/s	s, (Kv tot	al: 0.25)**	
58 X	X	X	X	(Χ	X	X							
						\Box		*) \	Vhen using the KV-signa	l fo	flow measurement.	the ac	ccuracy is ±5% (See	
							tior		TIMA Compact Veriflow				•	
		+				"	sta		-		-			
		len				🕺	ng		Tolerance of nominal Kv					
		Joc				l iţi	erii	***) In combination with a I	met	ering station the T-p	iece is	without the P/T plug.	
		Flow side component			Ire	stroke/static Kvs	Couplings/Metering station	The	e flow ranges are a recon	nma	ndation only The m	ageure	ment of higher flows is	
4	4	2 0	2	בי	ารระ) ke	J/sc							
MODULA	وً,	side		5	/Pre	strc	ili		wed, but the pressure los			ig stat	ion must be considered	
MODU	Siza/Cantar	N N	oula eyle/	2	Flow/Pressure	PICV	dnc	to a	avoid the excessive resista	nce.				
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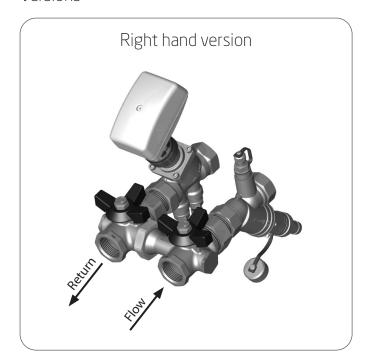
Example of product code: 587-12-1-LA-A

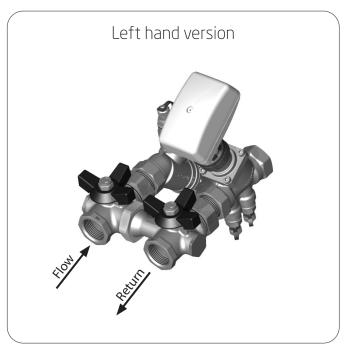
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Versions

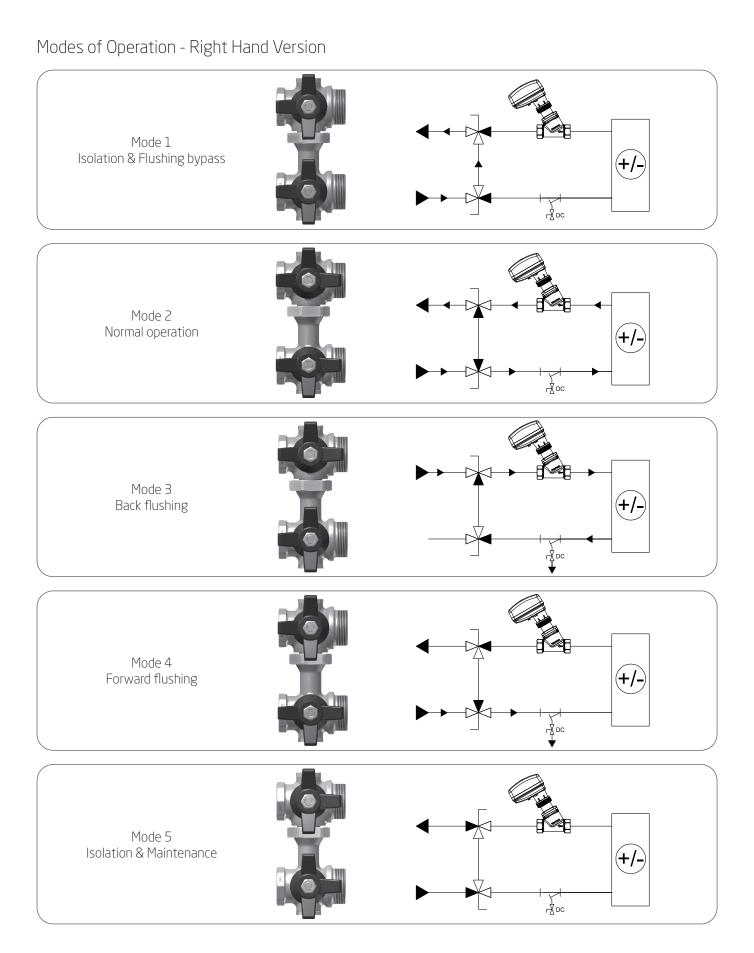




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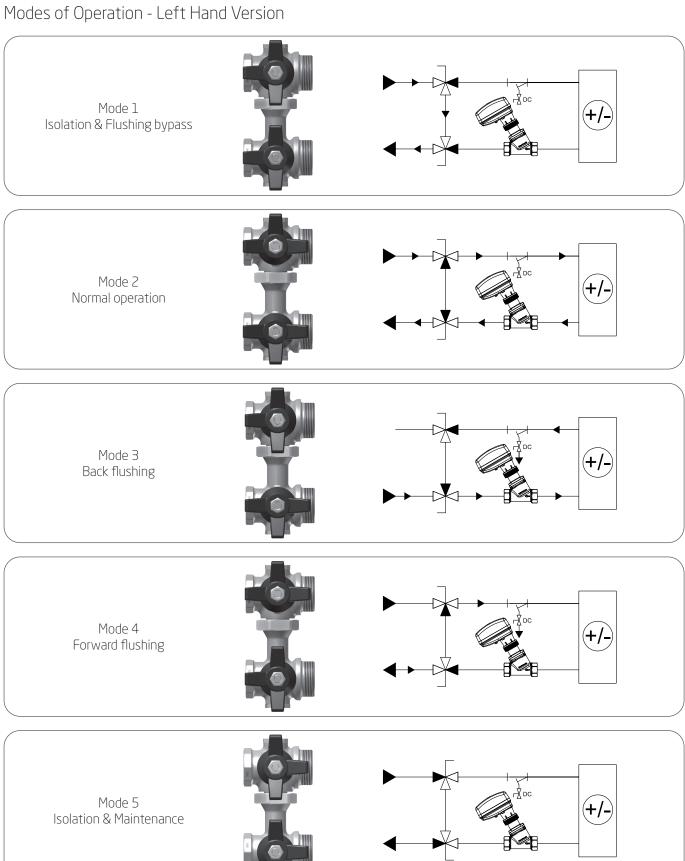










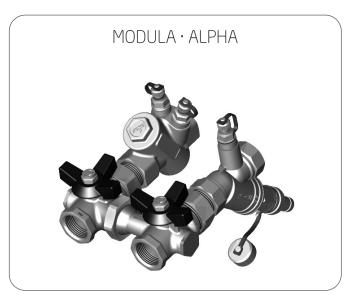




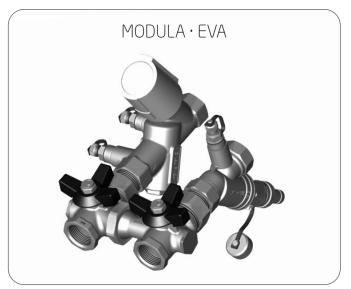


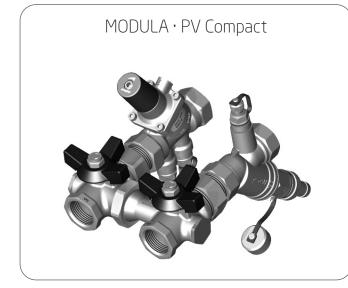
MODULA Types (shown with standard handles)











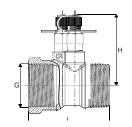






Accessories

Metering station	Dimension	L [mm]	H [mm]	G
RR	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 DN25	38-0866
	Right	DN25L	38-0867
	Left	DINZOL	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	Lenght [mm]	Frese no.
		300	48-0050
•	DN15	450	48-0051
		600	48-0052
		300	48-0053
	DN20	450	48-0054
		600	48-0055
		300	48-0056
	DN25	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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