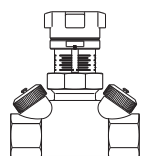


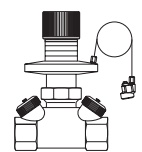
3.a System summary

Content	3.05
Functions, constructions etc.	3.06
Combinations of the components/Integration into systems	3.08

3.b "Hycococon" Control, regulating and isolating valves



Content	3.11
"Hycococon VTZ" Double regulating and commissioning valves PN 16	3.12



"Hycococon VPZ" Double regulating and commissioning valves PN 16	3.12
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"Hycococon ATZ" Isolating and orifice valves PN 16	3.13
--	------

"Hycococon APZ" Isolating and orifice valves PN 16	3.13
--	------

"Hycococon ETZ" Regulating valves PN 16	3.14
---	------

"Hycococon HTZ" Regulating valves PN 16	3.14
---	------

"Hycococon DTZ" Differential pressure regulators PN 16	3.15
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Insulation shells	3.16
-------------------	------

Accessories	3.17
-------------	------

Valve inserts suitable for "Hycococon" valves	3.19
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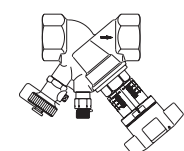
Measuring and draining unit	3.20
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"Hycococon" Combination summary connection thread M 30 x 1.5	3.22
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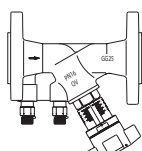
"Hycococon" System illustration of examples / Conversion possibilities	3.23
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"Demo-Bloc"	3.21
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3.c "Hydrocontrol" Regulating and isolating valves



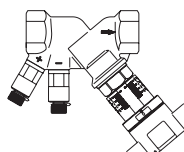
Content	3.25
"Hydrocontrol VTR" Double regulating and commissioning valves PN 25 / PN 16	3.26



"Hydrocontrol VPR" Double regulating and commissioning valves PN 16	3.28
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"Hydrocontrol VFC" Double regulating and commissioning valves PN 16	3.29
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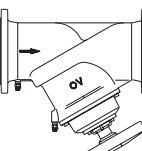
"Hydrocontrol VFC" Double regulating and commissioning valves PN 6	3.30
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"Hydrocontrol VFR" Double regulating and commissioning valves PN 16	3.30
---	------

"Hydrocontrol VFN" Double regulating and commissioning valves PN 25	3.31
---	------

"Hydrocontrol VGC" Double regulating and commissioning valves PN 25	3.31
---	------



"Hydrocontrol STR" Double regulating and commissioning valves PN 25	3.32
---	------

"Hydrocontrol MTR" Double regulating and commissioning valves PN 25	3.32
---	------

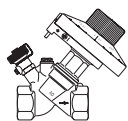
"Hydrocontrol MPR" Double regulating and commissioning valves PN 16	3.32
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"Hydrocontrol MFC" Double regulating and commissioning valves PN 16	3.33
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"Hydrocontrol ATR" Isolating and orifice valves PN 25 / PN 16	3.34
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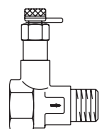
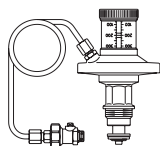
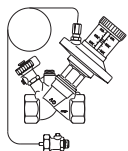
"Hydrocontrol APR" Isolating and orifice valves PN 16	3.34
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"Hydrocontrol AFC" Isolating and orifice valves PN 16	3.34
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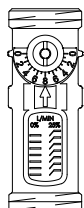
3.d "Hydromat" Differential pressure and flow regulators

Content	3.35
"Hydromat QTR" Flow regulators PN 16	3.36
"Hydromat DTR" Differential pressure regulators PN 16	3.37
"Hydrocontrol"/ "Hydromat" System examples	3.39
"Hydromat DFC" Differential pressure regulators PN 16	3.38



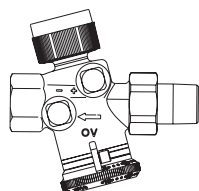
3.e Accessories for "Hydrocontrol", "Hydromat", "Hycocoon"

Content	3.41
Connection sets	3.42
Stem extensions	3.43
Bonnets	3.43
Diaphragm actuators	3.43
Insulation shells	3.44
Accessories	3.44
Tailpipe sets	3.45
"Ofix" Compression fittings	3.45
Metering stations	3.46



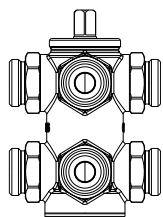
3.f "Hycoflow" Double regulating and commissioning valves with flow display

Content	3.49
"Hycoflow VTB"	3.50



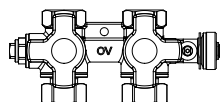
3.g "Cocon" Regulating valves

Content	3.51
"Cocon QTZ" Pressure independent control valves PN 16	3.52
"Cocon QTR" Pressure independent control valves PN 25 / PN 16	3.54
"Cocon QFC" Pressure independent control valves PN 16	3.54
"Cocon QFC" Pressure independent control valves PN 25	3.55
"Cocon QGC" Pressure independent control valves PN 16	3.55
Accessories for "Cocon QTZ" PN 25 and "Cocon 2TZ"	3.56
Accessories for "Cocon QTZ" PN 16 and "Cocon QTR"	3.56
Accessories for "Cocon QTR" and "Cocon QFC"	3.57
Tailpipe sets	3.58
"Cocon 2TZ" Regulating valves PN 10	3.59
Measuring devices for "Cocon 2TZ" regulating valves	3.59
„OV-Flex HC“ Flexible hoses	3.60
Accessories	3.60



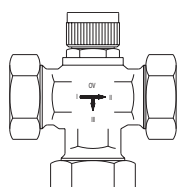
3.h "Optibal W6" Six-way ball valve

Content	3.61
Tailpipe sets	3.62



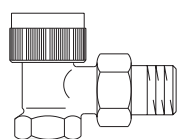
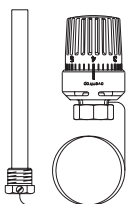
3.i "Flypass" Connection systems, valves and fittings

Content	3.63
"Flypass" System illustration	3.64
"Flypass" Connection sets	3.65
"Flypass 4TZ" Connection fitting	3.68
Valves for combination with the "Flypass 4TZ"	3.68
Accessories	3.70



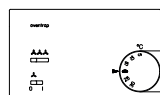
3.j "Tri-M", "Tri-D", "Tri-CTR" Two-way valves, three-way valves, temperature controllers

Content	3.73
"Tri-M plus TR" Four-port mixing valves PN 10	3.74
"Tri-D plus TB" Three-way diverting valve PN 16	3.74
"Tri-D TB" Three-way diverting valve PN 16	3.74
"Tri-D TR" Three-way diverting valves PN 16	3.75
"Tri-M TR" Three-way mixing valves PN 16	3.75
"Tri-CTR" Three-way diverting and mixing valves PN 16	3.75
Accessories sets for three-way valves "Tri-D TR", "Tri-M TR" and "Tri-CTR"	3.76
Temperature controllers	3.77
"Combi LR" Radiator lockshield valves	3.77
Two-way valve PN 16	3.77
Two-way valve PN 16	3.78



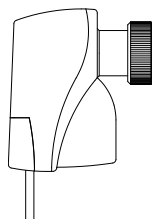
3.k "KTB" Thermostatic valves for cooling systems

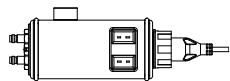
Content	3.79
Thermostatic valves "KTB"	3.80
Thermostats for thermostatic valves "KTB"	3.80



3.l Room thermostats, actuators

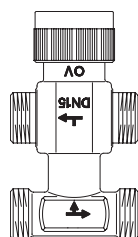
Content	3.81
Room thermostats	3.82
"Sensor GA FD" Dew point control	3.84
"Aktor T" Electrothermal actuators	3.85
"Aktor M" Electromotive actuators	3.86
"Aktor M ST EIB" Electromotive actuators	3.88
"Aktor M ST LON@" Electromotive actuators	3.88
"Aktor MH CON B" (ENOCEAN)	3.88





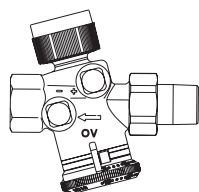
3.m "OV-DMC 3", OV-DMC 2" and "OV-DMCP" Measuring systems

Content	3.89
"OV-DMC 3"	3.90
"OV-DMC 2" Measuring system	3.91
"OV-DMC 2", "OV-DMPC" Accessories	3.91
"OV-DMPC" Measuring system	3.92
"OV-Connect" Differential pressure transmitter	3.93
"classic" measuring technique	3.94
Accessories "eco" measuring technique	3.94



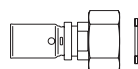
3.n Products for air conditioning and ventilation

Content	3.95
Products for air conditioning and ventilation	3.96



3.o Products for radiant and chilled ceiling systems

Content	3.99
Products for radiant and chilled ceiling systems	3.100



3.p Connection system

Content	3.103
Summary of the product groups and connection systems with male thread	3.104
Summary of the product groups and connection systems with female thread	3.105

3.a System summary

Content

Functions, constructions etc.	3.06
Combinations of the components/Integration into systems	3.08

Product group	"Hyocon"					"Hydrocontrol"									
	"Hyocon VTZ/VPZ"	"Hyocon ATZ/APZ"	"Hyocon ETZ"	"Hyocon HTZ"	"Hyocon DTZ"	"Hydrocontrol VTR/VPR"	"Hydrocontrol VFC"	"Hydrocontrol VFR"	"Hydrocontrol VFN"	"Hydrocontrol VGC"	"Hydrocontrol STR"	"Hydrocontrol MTR/MPR"	"Hydrocontrol MFC"	"Hydrocontrol ATR/APR"	"Hydrocontrol AFC"
Nominal pressure	PN16	PN16	PN16	PN16	PN16	PN16 PN25	PN6 PN16	PN16	PN25	PN16 PN25	PN25	PN16 PN25	PN16	PN16 PN25	PN16
Main function	•					•	•	•	•	•	•	•	•		
Double regulating and commissioning valve															
Isolating and orifice valve		•												•	•
Regulating valve			•	•											
Differential pressure regulator					•										
Flow regulator															
Mixing valve															
Diverting valve															
Pattern	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Straight pattern															
Angle pattern															
Reversed angle pattern															
Three-way valve															
Connection	•	•	•	•	•	•						•	•		•
Female thread															
Male thread	•	•	•	•	•	•								•	
Female/male thread															
Press connection	•	•				•						•		•	
Compression connection											•				
Flange							•	•	•				•		•
Groove										•					•
k_{vs}-value	DN 10					2.88									2.88
	DN 15	1.7	1.7	0.9	1.7	1.7	3.88					0.55 / 1.15 / 2.1			3.88
	DN 20	2.7	2.7	0.9	2.7/5.0	2.7	5.71	4.77				1.04/ 2.6	3.7		5.71
	DN 25	3.6	3.6	0.9	3.6	3.6	8.89	8.38					6.1		8.89
	DN 32	6.8	6.8		6.8	6.8	19.45	17.08					12.5		19.45
	DN 40	10	10		10	10	27.51	26.88					18.1		27.51
	DN 50	18	18			23	38.78	36	36				30.5		38.78
	DN 65						50	98	98	98	98			86.7	50
	DN 80							122.2	122.2	122.2	122.2			102	
	DN 100							201	201	201	201			198	201
	DN 125							293	293	293	293			271	293
	DN 150							404.3	404.3	404.3	404.3			400	404.3
	DN 200							814.5	814.5	814.5	814.5			750	
	DN 250							1200		1200	1200			1090	
	DN 300							1600		1600	1600			1600	
	DN 350							2250							
	DN 400							3750							
Permissible fluid temperature															
-20 °C															
-10 °C															
0 °C															
100 °C															
120 °C															
150 °C															
200 °C															
Connection possibility			•	•											
Actuator															
Further information	Page 3.12	Page 3.13	Page 3.14	Page 3.14	Page 3.15	Page 3.26	Page 3.29	Page 3.30	Page 3.31	Page 3.31	Page 3.32	Page 3.32	Page 3.33	Page 3.34	Page 3.34

"Hydromat"			"Hyco-flow"	"Cocon"							"Tri-M", "Tri-D", "Tri-CTR", "KTB", two-way valves and temperature controllers								
"Hydromat QTR"	"Hydromat DTR"	"Hydromat DFC"	"Hycoflow VTB"	"Cocon 2TZ"	"Cocon QTZ"	"Cocon QTZ"	"Cocon QTR"	"Cocon QFC"	"Cocon QGC"	"Tri-M plus TR"	"Tri-D plus TB"	"Tri-D TB"	"Tri-D TR"	"Tri-M TR"	"Tri-CTR"	"KTB"	Two-way valve		
PN16	PN16	PN16	PN10	PN10	PN16	PN25	PN16 PN25	PN16 PN25	PN16	PN10	PN16	PN16	PN16	PN16	PN16	PN10	PN16	Nominal pressure	
			•															Main function Double regulating and commissioning valve	
				•	•	•	•	•	•							•	•	Isolating and orifice valve	
	•	•																Regulating valve	
•					•	•	•	•	•									Differential pressure regulator	
										•				•	•			Flow regulator	
											•	•	•					Mixing valve	
												•	•		•			Diverting valve	
•	•	•	•	•	•	•	•	•	•								•	Pattern Straight pattern	
																	•	Angle pattern	
																	•	Reversed angle pattern	
										•	•	•	•	•	•		•	Three-way valve	
•	•																	Connection Female thread	
•	•		•	•	•	•	•	•	•	•	•	•	•	•	•			Male thread	
				•	•	•	•										•	Female/male thread	
																		Press connection	
																		Compression connection	
		•						•										Flange	
									•									Groove	
																		DN 10 kvs-value	
	2.5			0.45 / 1/1.8	0.45 / 1/1.8	0.6 / 1.8/2.2				0.45 / 1/1.8	2.5	2.5				1	1 / 1.6/2.5	DN 15	
	5		2.7	4.5	1.8/2.5	2.9							4.5	4.5		1	4/6.3	DN 20	
	7.5		5.5/8.3		4	4.0							6.5	6.5		1	10	DN 25	
	10		13.7		6	7.6											16	DN 32	
	15						11.5	11.5					9.5	9.5			25	DN 40	
	34						15/18.5	12									35	DN 50	
		52						36	36								63	DN 65	
		75						56	56								100	DN 80	
		110						80	80								160	DN 100	
		145						150									220	DN 125	
		170						220									320	DN 150	
								270										DN 200	
																		DN 250	
																		DN 300	
																		DN 350	
																		DN 400	
																		Permissible fluid temperature	
																		-20 °C	
																		-10 °C	
																		0 °C	
																		100 °C	
																		120 °C	
																		150 °C	
																		200 °C	
				•	•	•	•	•	•	•	•	•	•	•	•	•	•	Connection possibility Actuator	
Page 3.36	Page 3.37	Page 3.38	Page 3.50	Page 3.61	Page 3.54	Page 3.52	Page 3.56	Page 3.56	Page 3.57	Page 3.78	Page 3.78	Page 3.78	Page 3.79	Page 3.79	Page 3.79	Page 3.84	Page 3.81	Further information	

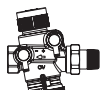
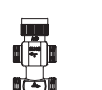
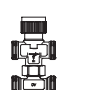
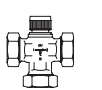
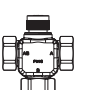
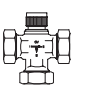
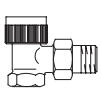
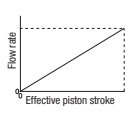
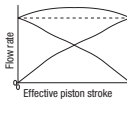
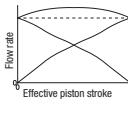
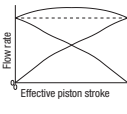
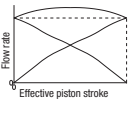
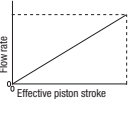
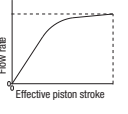
- Oventrop valves and actuators: see table
- Oventrop valves with actuators of other manufacturers:
With due consideration of the valve parameters, the combination with actuators of other manufacturers is possible on consultation.
h = valve
x = lower stroke of the valve
- Oventrop actuators with valves of other manufacturers: on consultation
- Integration into the centralised building control system (CBC): The four most important characteristic parameters are shown in the table.



- ① NC = closed with current "off" NO = open with current "off"
- EM = electromotive ET = electrothermal
- ② Operating behaviour: additionally 4-20 mA / 2-10 V
- ③ Valve adapter "Hycoco" (item no. 1012992) required.
- ④ K_v -value can be reduced
- ⑤ Piston stroke \geq effective valve lift
- ⑥ Valve adapter 1012462 required.

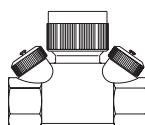
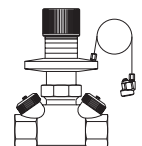
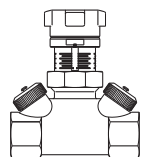
Illustration (examples)	Ratings actuators		Characteristic parameters for CBC										Valve characteristic line	Actuator characteristic line			
	Item no.	Model	Operating current	Operating behaviour	Interface	Upper lift position [mm]	Lower lift position [mm]	Piston stroke [mm]	Operating power [mm]	Medium floating	Protection	Max. fluid temperature [°C]			Permissible install. position		
A "Aktor T 2P L NC" / "Aktor T 2P H NC"	10124..	ET NC	24 V / 230 V	2 point	digital	11.2	15.8	-	> 90	~5 min	IP54	+100	any	●	●	●	●
B "Aktor T 2P L NO" / "Aktor T 2P H NO"	10124..	ET NO	24 V / 230 V	2 point	digital	11.2	15.8	-	> 90	> 5 min	IP54	+100	any	●	●	●	●
C "Aktor T ST L NC"	1012953	ET NC	24 V	steady (0-10V)	analogue	11.2	15.8	4.0	> 90	~40 s/mm	IP54	+100	In vertical to horizontal position, not suspended	●	●	●	●
D "Aktor M ST L"	1012705/95	EM	24 V	steady (0-10V)	analogue	11.2	15.8	0.5-4.0	> 90	~15 s/mm	IP40	+100	In vertical to horizontal position, not suspended	●	●	●	● (1012705)
E "Aktor M ST L"	1012706/96	EM	24 V	steady (0-10V)	analogue	11.2	15.8	0.5-4.0	> 90	~15 s/mm	IP40	+100	In vertical to horizontal position, not suspended	●	●	●	● (1012706)
F "Aktor M 3P L"	1012708	EM	24 V	3 point	digital	11.2	15.8	-	> 90	~15 s/mm	IP40	+100	In vertical to horizontal position, not suspended	●	●	●	●
G "Aktor M 3P H"	1012709	EM	230 V	3 point	digital	11.2	15.8	-	> 90	~15 s/mm	IP40	+100	In vertical to horizontal position, not suspended	●	●	●	●
H "Aktor M 2P H" / "Aktor M 2P L"	1012710/11	EM NO	230 V/24 V	2 point	digital	11.2	17.0	-	> 90	~3 s	IP54	+100	In vertical to horizontal position, not suspended	●	●	●	●
I "Aktor M ST EIB"	11560..	EM	24 V	steady	EIB / KNX	11.2	15.2	2.6-4.0	> 90	~30 s/mm	IP44	+100	In vertical to horizontal position, not suspended	●	●	●	●
J "Aktor M ST LON"	1157065	EM	nom. 48 V	steady	LON	11.2	15.2	2.6-4.0	> 90	~30 s/mm	IP44	+100	In vertical to horizontal position, not suspended	●	●	●	●
K "Aktor MH CON B"	1150665	EM	Mignon (2x)	steady	EIB / KNX	11.0	15.4	2	> 90	~3 s/mm	IP20	+90	In vertical to horizontal position, not suspended	●	●	●	●
L "Aktor MH CON B" (ENOCEAN)	1150765	EM	Mignon (2x)	steady (control integrated)	ENOCEAN (EEP AS-20-01)	11.0	15.4	2	> 90	~3 s/mm	IP20	+90	In vertical to horizontal position, not suspended	●	●	●	●

All values are standard values without tolerances.

5	6	7	8	9	10	11
						
"Cocon QTZ"	"Tri-M plus TR"	"Tri-D plus TB"	"Tri-DTR/Tri-MTR"	"Tri CTR"	Two-way straight pattern valve	"KTB"
11431-11494..	11427..	11426..	11302/11307..	11312..	11307..	11417 - 11419..
10/15/20/25/32	15	15	20/25/40	15-50	20/25/40	15/20/25
M 30 x 1.5	M 30 x 1.5	M 30 x 1.5	M 30 x 1.5	M 30 x 1.5	M 30 x 1.5	M 30 x 1.5
11.8	11.8	11.8	11.8	11.8	11.8	12.8
6	1	1	0.75/0.5/0.2		0.75/0.5/0.2	0.5
30-210 l/h: 2.8/4	2.5	2.5	2.8	2.8	3	2.5
25	10	16	16	16	16	10
14.6/15.8 or higher	14.3 or higher	14.3 or higher	14.6 or higher	14.6 or higher	14.8 or higher	13.3 or higher
11.3 or lower	11.3 or lower	11.3 or lower	11.3 or lower	11.3 or lower	11.3 or lower	10.8 or lower
90 / 150	90 / 150	90 / 150	90 / 150	90 / 150	90 / 150	90 / 150
						
•	•	•	•	•	•	
•	•	•	•	•	•	• ^④
• ^⑤	• ^⑤	• ^⑤	• ^⑤	• ^⑤	• ^⑤	
• (1012735)	•	•	•	•	•	
• (1012736)	•	•	•	•	•	
•	•	•	•	•	•	
•	•	•	•	•	•	
•	•	•	•	•	•	• ^④
•	•	•	•	•	•	
•	•	•	•	•	•	

Ratings valves		1	2	3	4	5	6
Illustration (examples)							
Item no.		11461../11431	11461/6649-50	1146151-56/1146651-56	1143154-55	1676251-53	11308../16708..
DN		40-50/50	40-50	65.80.100/125/150/200	125/150. 200	65. 80. 100	15 - 150
Connection		Squeeze connection	Squeeze connection	Squeeze connection	Squeeze connection	Squeeze connection	Squeeze connection
Closing dimension x [mm]							
Δp max. [bar]		4	4	4	4	4	0.7-12.1
Valve lift h [mm]		10	10	20 / 36 / 40	36 / 40	20	10 / 30 / 40
PN		16/25	16/25	16/25	16	16	16
Demands on actuators							
Upper lift position [mm]							
Lower lift position [mm]							
Closing press. [N] min/max.		500/800/1000	500/800/1000	800/1000/2000	2000	800/1000	500/2000
Ratings actuators		Valve characteristic line					
Illustration (examples)	Item no.	Actuator characteristic line					
		Flow rate vs. Effective piston stroke					
A	1158010	Adjustable at the actuator					
B	1158011	Adjustable at the actuator					DN 15-50
C	1158030	Adjustable at the actuator			DN 125-200	DN 125-150	DN 65-150
D	1158031	Adjustable at the actuator			DN 125-200	DN 125-150	DN 65-150
E	1158032	Adjustable at the actuator			DN 125-200	DN 125-150	DN 65-150
F	1158022				DN 65-100		
G	1158021				DN 65-100		
H	1158020				DN 65-100		

All values are standard values without tolerances



3.b "Hycococon" Control, regulating and isolating valves

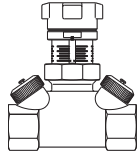
Content

"Hycococon VTZ" Double regulating and commissioning valves PN 16	3.12
"Hycococon VPZ" Double regulating and commissioning valves PN 16	3.12
"Hycococon ATZ" Isolating and orifice valves PN 16	3.13
"Hycococon APZ" Isolating and orifice valves PN 16	3.13
"Hycococon ETZ" Regulating valves PN 16	3.14
"Hycococon HTZ" Regulating valves PN 16	3.14
"Hycococon DTZ" Differential pressure regulators PN 16	3.15
Insulation shells	3.16
Accessories	3.17
Valve inserts suitable for "Hycococon" valves	3.19
Measuring and draining unit	3.20
"Hycococon" Combination summary connection thread M 30 x 1.5	3.22
"Hycococon" System illustration of examples / Conversion possibilities	3.23
"Demo-Bloc"	3.21

Article	kvs	Packing unit	Article-No.	Hint
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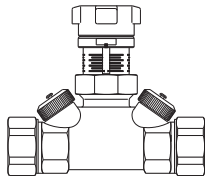
"Hycococon VTZ" Double regulating and commissioning valves PN 16 (presettable, threaded connection, dezincification resistant brass) with infinitely adjustable presetting "eco" measuring technique

both ports with integrated pressure test points and drain valves as well as insulation shells



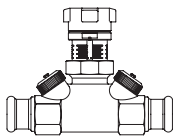
both ports female thread according to EN 10226

DN 15	1.70	(10)	1061704
DN 20	2.70	(10)	1061706
DN 25	3.60	(10)	1061708
DN 32	6.80	(5)	1061710
DN 40	10.00	(5)	1061712
DN 50	18.00	(5)	1061716



both ports male thread with collar nut

DN 15	1.70	(10)	1061804
DN 20	2.70	(10)	1061806
DN 25	3.60	(10)	1061808
DN 32	6.80	(5)	1061810
DN 40	10.00	(5)	1061812
DN 50	18.00	(5)	1061816



"Hycococon VPZ" Double regulating and commissioning valves PN 16 (presettable, press connection, dezincification resistant brass) with infinitely adjustable presetting "eco" measuring technique

both ports with integrated pressure test points and drain valves as well as insulation shells

both ports press connection

DN 15 Ø 15 mm	1.70	(10)	1061751
DN 15 Ø 18 mm	1.70	(10)	1061752
DN 20 Ø 22 mm	2.70	(10)	1061754
DN 25 Ø 28 mm	3.60	(10)	1061756
DN 32 Ø 35 mm	6.80	(5)	1061758
DN 40 Ø 42 mm	10.00	(5)	1061760

Application:
 Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:
 Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.

Measuring gauges: page 3.90 to 3.92

Connection thread M 30 x 1.5.

All functioning components are located in one plane which is especially advantageous where space is limited. Different possibilities of conversion of "Hycococon" valves see summary: page 3.22.

Function: "Hycococon" double regulating and commissioning valves serve to achieve a hydronic balance between the various risers or different sections of the system. Installation is possible in either the supply or the return pipe.

Description "Hycococon VTZ/VPZ":

Max. operating pressure p_g : 16 bar (PN 16)

Operating temperature t_s : -10 °C up to +120 °C

Body and bonnet made of brass resistant to dezincification.

Oventrop double regulating and commissioning valves with reproducible, infinitely adjustable presetting controllable at any time. Lockable and lead sealable presetting (accessories set). Under working conditions and without draining the system (only DN 15 - DN 40):

- conversion to differential pressure regulator "Hycococon DTZ" (diaphragm actuator for the conversion: page 3.17)

- conversion to thermostatic operation (thermostats "Uni XH/LH": e.g. page 1.08, temperature controllers: page 3.77)

- can be used with electromotive and electrothermal actuators as well as electromotive actuators "EIB" or "LON" (actuators: page 1.26)

- bonnet may be replaced with the help of the "Demo-Bloc" for subsequent conversion of sizes DN 15 - DN 25

The "Hycococon" valves are supplied with insulation shells (max. temperature 110 °C/not diffusion tight).

The valves DN 15 and DN 20 (female thread) are suitable for use with compression fittings, item no. 10271..., page 3.45.

Press connection:

For the direct connection of copper pipes according to DIN EN 1057/DVGW GW 392, stainless steel pipes according to DIN EN 10088/DVGW GW 541 and thin-walled C-steel pipe (material no. E195/1.0034) according to DIN EN 10305-3. Pressing must be carried out to tighten the connection. Only use press jaws with the original contours SANHA (SA), Geberit-Mapress (MM) or Viega (Profipress) in corresponding size. Processing must be carried out according to the installation instructions.

Awards "Hycococon":

ISH ISH Frankfurt "Design plus"

Preis des Jahres Design Award Switzerland

if International Design Forum Hanover

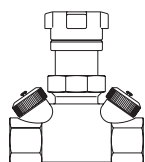
"Award iF"

Logo Nominated for the Design Award of the Federal Republic of Germany

Article	kvs	Packing unit	Article-No.	Hint
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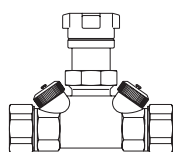
"Hycococon ATZ" Isolating and orifice valves PN 16 (with isolating facility, threaded connection, dezincification resistant brass) "eco" measuring technique

both ports with integrated pressure test points and drain valves as well as insulation shells



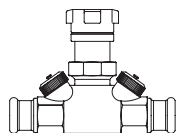
both ports female thread according to EN 10226

DN 15	1.70	(10)	1067304
DN 20	2.70	(10)	1067306
DN 25	3.60	(10)	1067308
DN 32	6.80	(5)	1067310
DN 40	10.00	(5)	1067312
DN 50	18.00	(5)	1067316



both ports male thread with collar nut

DN 15	1.70	(10)	1067404
DN 20	2.70	(10)	1067406
DN 25	3.60	(10)	1067408
DN 32	6.80	(5)	1067410
DN 40	10.00	(5)	1067412
DN 50	18.00	(5)	1067416



"Hycococon APZ" Isolating and orifice valves PN 16 (with isolating facility, press connection, dezincification resistant brass) "eco" measuring technique

both ports with integrated pressure test points and drain valves as well as insulation shells

both ports press connection

DN 15 Ø 15 mm	1.70	(10)	1067351
DN 15 Ø 18 mm	1.70	(10)	1067352
DN 20 Ø 22 mm	2.70	(10)	1067354
DN 25 Ø 28 mm	3.60	(10)	1067356
DN 32 Ø 35 mm	6.80	(5)	1067358
DN 40 Ø 42 mm	10.00	(5)	1067360

Application:
 Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Connection thread M 30 x 1.5.

All functioning components are located in one plane which is especially advantageous where space is limited.

Description "Hycococon ATZ/APZ":
 Max. operating pressure p_s : 16 bar (PN 16)
 Operating temperature t_s : -10 °C up to +120 °C
 Body and bonnet made of brass resistant to dezincification.

Under working conditions and without draining the system:

- conversion to double regulating and commissioning valve (handwheel for conversion: page 3.17)

The "Hycococon" valves are supplied with insulation shells (max. temperature 110 °C/not diffusion tight).

The valves DN 15 - DN 20 (female thread) are suitable for use with compression fittings, item no. 10271..., page 3.45.

For further information see "Technical information":

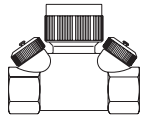


Article	kv at 1K P-dev.	kv at 2K P-dev.	kvs	Packing unit	Article-No.
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Hint

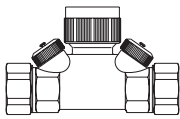
**"Hycococon ETZ" Regulating valves PN 16
(can be motorised, threaded connection,
dezincification resistant brass)
with infinitely adjustable presetting (AV 9 technique)
"eco" measuring technique**

both ports with integrated pressure test points and drain valves



both ports female thread according to EN 10226

DN 15	0.36	0.67	1.00	(10)	1068364
DN 20	0.36	0.67	1.20	(10)	1068366
DN 25	0.36	0.67	1.20	(10)	1068368

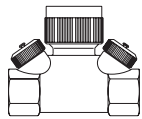


both ports male thread with collar nut

DN 15	0.36	0.67	1.00	(10)	1068464
DN 20	0.36	0.67	1.20	(10)	1068466
DN 25	0.36	0.67	1.20	(10)	1068468

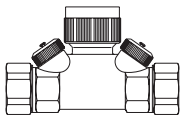
**"Hycococon HTZ" Regulating valves PN 16
(high kv-value, threaded connection,
dezincification resistant brass)
with infinitely adjustable presetting
"eco" measuring technique**

both ports with integrated pressure test points and drain valves



both ports female thread according to EN 10226

DN 15	0.52	0.95	1.70	(10)	1068564
DN 20	0.52	1.04	2.70	(10)	1068566
DN 25	0.52	1.08	3.60	(10)	1068568
DN 32	0.70	1.39	6.80	(5)	1068570
DN 40	0.84	1.58	10.00	(5)	1068572



both ports male thread with collar nut

DN 15	0.52	0.95	1.70	(10)	1068664
DN 20	0.52	1.04	2.70	(10)	1068666
DN 20	0.63	1.30	5.00	(10)	1068667
DN 25	0.52	1.08	3.60	(10)	1068668
DN 32	0.70	1.39	6.80	(5)	1068670
DN 40	0.84	1.58	10.00	(5)	1068672

Application:

Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:

Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.

Measuring gauges: page 3.90 to 3.92
Connection thread M 30 x 1.5.

All functioning components are located in one plane which is especially advantageous where space is limited.

Different possibilities of conversion of "Hycococon" valves see summary: page 3.22.

Function:

"Hycococon" regulating valves allow the regulation of sections of the system or an individual room temperature control when combined with actuators or thermostats. Installation is possible in either the supply or the return pipe.

Description "Hycococon ETZ":

Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -10 °C up to +120 °C
Body and bonnet made of brass resistant to dezincification.

With infinitely presettable valve insert "AV 9". Under working conditions and without draining the system:

- conversion to thermostatic operation (thermostats "Uni XH/LH": e. g. page 1.08, temperature controllers: page 3.77)
 - can be used with electromotive and electrothermal actuators as well as electrothermal actuators "EIB" or "LON" (actuators: page 3.85)
 - bonnet may be replaced with the help of the "Demo-Bloc" for subsequent conversion
- With white protection cap with 3 frontal lugs.
Presetting key: page 1.108

Description "Hycococon HTZ":

Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -10 °C up to +120 °C
Body and bonnet made of brass resistant to dezincification.

With infinitely presettable valve insert for high flow rates.

Under working conditions and without draining the system:

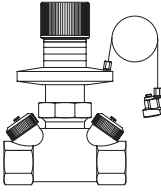

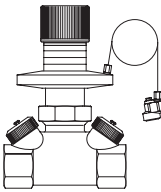
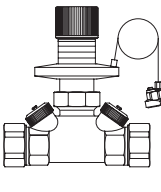
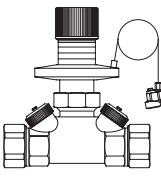
- conversion to differential pressure regulator "Hycococon DTZ" (diaphragm actuator for the conversion: page 3.17)
- conversion to thermostatic operation (thermostats "Uni XH/LH": e. g. page 1.08, temperature controllers: page 3.77)
- can be used with electromotive and electrothermal actuators as well as electrothermal actuators "EIB" or "LON" (actuators: page 3.86)
- conversion to double regulating and commissioning valve "Hycococon VTZ"

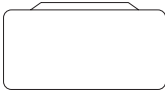
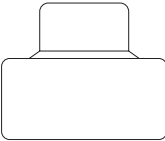
With green protection cap.





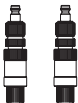
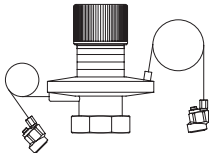



Set for presetting: page 3.18

Tailpipe sets: Pages 1.52, 1.93, 3.45

Combination possibilities of valves and actuators: Page 3.08

Article	kvs	Packing unit	Article-No.	Hint																								
<p>"Hycococon DTZ" Differential pressure regulators PN 16 (differential pressure control, threaded connection, dezincification resistant brass) "eco" measuring technique</p> <p>both ports with integrated pressure test points and drain valves as well as insulation shells</p> <p>both ports female thread according to EN 10226 Nominal value: 50 to 300 mbar, infinitely adjustable</p>  <table border="1"> <tr><td>DN 15</td><td>1.70</td><td>(10)</td><td>1062004</td></tr> <tr><td>DN 20</td><td>2.70</td><td>(10)</td><td>1062006</td></tr> <tr><td>DN 25</td><td>3.60</td><td>(10)</td><td>1062008</td></tr> <tr><td>DN 32</td><td>6.80</td><td>(5)</td><td>1062010</td></tr> <tr><td>DN 40</td><td>10.00</td><td>(5)</td><td>1062012</td></tr> <tr><td>DN 50</td><td>23.00</td><td></td><td>1062016</td></tr> </table>				DN 15	1.70	(10)	1062004	DN 20	2.70	(10)	1062006	DN 25	3.60	(10)	1062008	DN 32	6.80	(5)	1062010	DN 40	10.00	(5)	1062012	DN 50	23.00		1062016	<p>Application: Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).</p> <p>Connection thread M 30 x 1.5.</p> <p>All functioning components are located in one plane which is especially advantageous where space is limited.</p> <p>Different possibilities of conversion of "Hycococon" valves see summary: page 3.22.</p> <p>Description: "Hycococon DTZ" differential pressure regulators can be used for a local or central regulation of the differential pressure. They are proportional regulators working without auxiliary energy and are equipped with a pressure balanced valve disc. The "Hycococon DTZ" differential pressure regulators are installed in the return pipe.</p> <p>Max. operating pressure p_s: 16 bar (PN 16) Operating temperature t_s: -10 °C up to +120 °C Body and bonnet made of brass resistant to dezincification.</p> <p>The "Hycococon DTZ" differential pressure regulators are supplied complete with the connection set and the drain valve as well as insulation shells (max. temperature 110 °C / not diffusion tight).</p> <p>Capillary length 1 m.</p> <p>For further information see "Technical information":</p> 
DN 15	1.70	(10)	1062004																									
DN 20	2.70	(10)	1062006																									
DN 25	3.60	(10)	1062008																									
DN 32	6.80	(5)	1062010																									
DN 40	10.00	(5)	1062012																									
DN 50	23.00		1062016																									
<p>both ports female thread according to EN 10226 Nominal value: 250 to 600 mbar, infinitely adjustable</p>  <table border="1"> <tr><td>DN 15</td><td>1.70</td><td>(10)</td><td>1062204</td></tr> <tr><td>DN 20</td><td>2.70</td><td>(10)</td><td>1062206</td></tr> <tr><td>DN 25</td><td>3.60</td><td>(10)</td><td>1062208</td></tr> <tr><td>DN 32</td><td>6.80</td><td>(5)</td><td>1062210</td></tr> <tr><td>DN 40</td><td>10.00</td><td>(5)</td><td>1062212</td></tr> <tr><td>DN 50</td><td>23.00</td><td></td><td>1062216</td></tr> </table>				DN 15	1.70	(10)	1062204	DN 20	2.70	(10)	1062206	DN 25	3.60	(10)	1062208	DN 32	6.80	(5)	1062210	DN 40	10.00	(5)	1062212	DN 50	23.00		1062216	
DN 15	1.70	(10)	1062204																									
DN 20	2.70	(10)	1062206																									
DN 25	3.60	(10)	1062208																									
DN 32	6.80	(5)	1062210																									
DN 40	10.00	(5)	1062212																									
DN 50	23.00		1062216																									
<p>both ports male thread with collar nut Nominal value: 50 to 300 mbar, infinitely adjustable</p>  <table border="1"> <tr><td>DN 15</td><td>1.70</td><td>(10)</td><td>1062104</td></tr> <tr><td>DN 20</td><td>2.70</td><td>(10)</td><td>1062106</td></tr> <tr><td>DN 25</td><td>3.60</td><td>(10)</td><td>1062108</td></tr> <tr><td>DN 32</td><td>6.80</td><td>(5)</td><td>1062110</td></tr> <tr><td>DN 40</td><td>10.00</td><td>(5)</td><td>1062112</td></tr> <tr><td>DN 50</td><td>23.00</td><td></td><td>1062116</td></tr> </table>				DN 15	1.70	(10)	1062104	DN 20	2.70	(10)	1062106	DN 25	3.60	(10)	1062108	DN 32	6.80	(5)	1062110	DN 40	10.00	(5)	1062112	DN 50	23.00		1062116	
DN 15	1.70	(10)	1062104																									
DN 20	2.70	(10)	1062106																									
DN 25	3.60	(10)	1062108																									
DN 32	6.80	(5)	1062110																									
DN 40	10.00	(5)	1062112																									
DN 50	23.00		1062116																									
<p>both ports male thread with collar nut Nominal value: 250 to 600 mbar, infinitely adjustable</p>  <table border="1"> <tr><td>DN 15</td><td>1.70</td><td>(10)</td><td>1062304</td></tr> <tr><td>DN 20</td><td>2.70</td><td>(10)</td><td>1062306</td></tr> <tr><td>DN 25</td><td>3.60</td><td>(10)</td><td>1062308</td></tr> <tr><td>DN 32</td><td>6.80</td><td>(5)</td><td>1062310</td></tr> <tr><td>DN 40</td><td>10.00</td><td>(5)</td><td>1062312</td></tr> <tr><td>DN 50</td><td>23.00</td><td></td><td>1062316</td></tr> </table>				DN 15	1.70	(10)	1062304	DN 20	2.70	(10)	1062306	DN 25	3.60	(10)	1062308	DN 32	6.80	(5)	1062310	DN 40	10.00	(5)	1062312	DN 50	23.00		1062316	
DN 15	1.70	(10)	1062304																									
DN 20	2.70	(10)	1062306																									
DN 25	3.60	(10)	1062308																									
DN 32	6.80	(5)	1062310																									
DN 40	10.00	(5)	1062312																									
DN 50	23.00		1062316																									

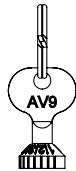
Article	Article-No.	Hint
Insulation shells for higher temperatures		
	DN 15	1061771
	DN 20	1061772
	DN 25	1061773
	DN 32	1061774
	DN 40	1061775
Insulation, consisting of two shells. Comply with the specifications of the German Energy Saving Directive (EnEV), appendix 5, table 1, line 5. Not suitable for item no. 1068667 and "Hycococon DTZ". Building material class B2 according to DIN 4102. Max. operating temperature t_s : +120 °C		
additionally required for cooling systems		
	DN 15	1061781
	DN 20	1061782
	DN 25	1061783
	DN 32	1061784
	DN 40	1061785
Not suitable for item no. 1068667 and "Hycococon DTZ". For "Hycococon ETZ/HTZ" only suitable in combination with item no. 1061771-75. Building material class B1 according to DIN 4102. Operating temperature t_s : -10 °C up to +120 °C Cold insulation: Min. fluid temperature: +6 °C The insulation shells have to be bonded hermetically (restricted diffusion tightness at low fluid temperature and at high ambient temperature and/or humidity).		

Article	Packing unit	Article-No.	Hint
Accessories			For the conversion of isolating and orifice valves "Hycococon ATZ/APZ" to double regulating and commissioning valves "Hycococon VTZ/VPZ".
	Handwheel for double regulating commissioning valves "Hycococon VTZ/VPZ"		
	DN 15	(10) 1061793	
	DN 20	(10) 1061794	
	DN 25	(10) 1061795	
	DN 32	(10) 1061796	
	DN 40	(10) 1061797	
	Locking pin with locking wire for double regulating and commissioning valves "Hycococon VTZ/VPZ" as well as for "Aquaström T plus" for differential pressure regulator "Hycococon DTZ"	(50) 1061792 (25) 1062092	For locking the set nominal values. For double regulating and commissioning valves "Hycococon VTZ/VPZ" as well as item no. 42055/56/65/66..
	Fill and drain tool for valves with "eco" measuring technique	1061791	"eco" measuring technique: For draining, venting and filling the installation.
	Measuring adapter	(50) 1060297	Measuring adapter with quick-coupling technic to be screwed onto the fill and drain tool.
	Set = 2 measuring needles for valves with "eco" measuring technique	(25) 1061799	For measurement with measuring systems "OV-DMC 3", "OV-DMC 2" and "OV-DMPC".
	Diaphragm actuators Nominal value: 50 to 300 mbar, infinitely adjustable	DN 15 - DN 25 (10) 1062082 DN 32 / DN 40 (10) 1062085	Used for the conversion of "Hycococon VTZ/VPZ" or "Hycococon HTZ" valves to differential pressure regulators "Hycococon DTZ".
	Nominal value: 250 to 600 mbar, infinitely adjustable	DN 15 - DN 25 (10) 1062282 DN 32 / DN 40 (10) 1062285	The valve insert required for the conversion of "Hycococon VTZ/VPZ" DN 15 - DN 25 is supplied with the diaphragm actuators.
	Adapter G 1/4 male thread	(50) 1609302	Adapter for the connection of the "Hycococon DTZ" capillary to the "classic" measuring technique connection G 1/4 female thread.
	Adapter G 3/4 female thread	(50) 1062090	Adapter for the connection of the "Hycococon DTZ" capillary to a G 3/4 male thread (flat sealing).
	Capillary 2 m long for "Hycococon DTZ" and "Hydromat DTR"	(10) 1062095	The capillary can also be used for "Hydromat DTR" manufactured since 2012.
	Capillary 5 m long for "Hycococon DTZ" and "Hydromat DTR"	(10) 1062097	

Article	Packing unit	Article-No.	Hint
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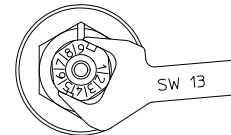
Set for presetting for series "Hycocon HTZ"	(10)	1068585	
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Presetting key for thermostatic valves "AV 9, ADV 9, RFV 9, CV 9, E" and fittings "Multiblock T/TU/TFU/T-RTL" (manufactured since 2016)	(10)	1183962	
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The presetting value can be adjusted with the help of the marking on the hexagon of the valve insert.

The presetting key fits only in one position.



Alternatively, presetting can also be carried out with a spanner sized 13 mm.

Article	kv at 2K P-dev.	Packing unit	Article-No.	Hint
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Valve inserts suitable for "Hycoco" valves sizes DN 15 - DN 25
(except for 1068667)

All valve inserts DN 15 - DN 25 (except for item no. 1026981 and 1187071) are replaceable by using the special tool "Demo-Bloc" without draining the system.



"AV 9, CV 9, RFV 9, E" and "Multiblock T-RTL" (manufactured since 2016)
0.67 (100) **1187047#**

Also for "Hycoco ETZ" (manufactured since 2016).



for return flow valves connection thread M 30 x 1.5 (100) **1026981**

Valve insert with double disc. Prevents inadvertent overheating, with frost protection.



"AV 6, RFV 6, E" and "Multiblock T-RTL" (manufactured up to 2015)
0.65 (100) **1187057#**

Also for "Hycoco ETZ" (manufactured up to 2015 inclusive).



"A" (DN 10 - DN 15) and "RF"
0.95 (100) **1187069^o#**

These valve inserts are suitable for all valve bodies with connection thread M 30 x 1.5 of all sizes of the thermostatic valves "A, AV 9, AQ, AV 6, ADV 9, ADV 6, CV 9, E, EQ, AF, RF, RFV 9, RFQ and RFV 6".



"A" (DN 20 - DN 32) and "AZ"
1.10 (100) **1187060^o#**



"AF"
0.32 (100) **1187352#**

Distinctive features of the valves:

Series	Protection cap	Gland nut (since end of 1993)
A	black	unplated brass
ADV 6	grey-green	grey-green
ADV 9	grey-green (3 frontal lugs)	grey-green
AF	red	red
AQ/ EQ/ RFQ	light grey	
AV 9/ CV 9/ E	white (3 frontal lugs)	
AZ H	orange	
AZ V	green	
RF	blue	unplated brass
RFV 9	light green (3 frontal lugs)	



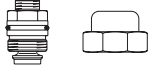






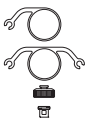



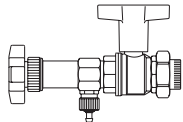
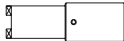
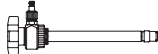
for thermostatic valves "AQ, RFQ, EQ", fittings "Multiblock TQ, TQ-RTL", and "Unibox TQ, Q plus"
"QA" (25) **1187065#**

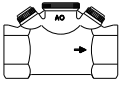

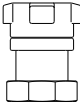
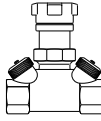
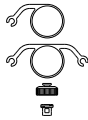


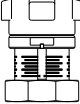
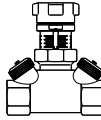

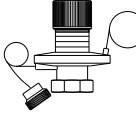
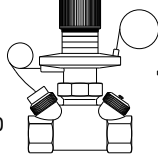


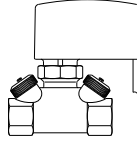

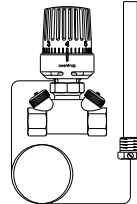





"ADV 6"
0.65 (100) **1186001#**

The double function of the "ADV 6" and "ADV 9" inserts provokes an automatic closing of the valve to 5 % of the nominal flow (frost protection) should the thermostat be removed or destroyed. Presetting as "AV 6" and "AV 9".

Article	kv at 2K P-dev.	Packing unit	Article-No.	Hint
 <p>"PTB" and "Cocon 2TZ"</p> <p>kvs = 0.45 P1 kvs = 1.0 P2 kvs = 1.8 P3</p>		(100)	1186052#	#These valve inserts are suitable for all valve bodies with connection thread M 30 x 1.5 of all sizes of the thermostatic valves "A, AV 6, ADV 6, AZ, E, F, RF and RFV 6".
		(100)	1186053#	
		(100)	1186054	
 <p>with stainless steel seat (especially for steam installations)</p>		(100)	1186200#	
 <p>"Combi LR" with cap</p>		(100)	1187071	
 <p>Special valve insert for reversed supply and return pipe for thermostatic valves "A, AV 9, AV 6, ADV 6, ADV 9, CV 9, E, AF, RF, RFV 9, RFV 6" without presetting</p>				
	0.45	(100)	1187070#	
 <p>Thermostatic valves "KTB" Valve inserts</p>		(100)	1147169	
 <p>for "Hycococon HTZ/DTZ"</p> <p>DN 15 - DN 25</p>	0.95 - 1.08	(10)	1067085	
 <p>for "Hycococon HTZ", "Hycococon DTZ", "Hycococon VTZ/VPZ"</p> <p>DN 32 DN 40</p>	1.39 1.58	(10)	1067066 1067067	The valve insert 1067066 is also suitable for item no. 1068867 ("Hycococon HTZ", DN 20 with kvs value 5.0).
 <p>for "Hycococon VTZ/VPZ" and "Hycococon ATZ/APZ"</p> <p>DN 15 - DN 25</p>		(10)	1067065	
 <p>for "Hycococon ATZ/APZ"</p> <p>DN 32 DN 40</p>		(10)	1067068 1067069	
<p>Measuring and draining unit for valves with "eco" measuring technique</p>				"eco" measuring technique: Information: page 3.94
 <p>DN 15 - DN 40</p>		(10)	1061790	
 <p>Plug for valves with "eco" measuring technique</p> <p>DN 15 - DN 40</p>		(10)	1061798	

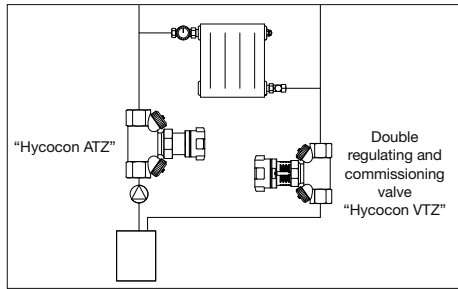
Article	Packing unit	Article-No.	Hint
<p>"Demo-Bloc" special tool for replacing the valve inserts, suitable for "Hycococon" DN 15, 20 and 25 (except for "Hycococon DTZ" and item no. 1068667) <u>without draining the system</u> Basic tool also suitable for all Oventrop thermostatic radiator valves</p>			The "Demo-Bloc" is supplied in a handy bag.
	connection thread M 30 x 1.5	1188051	Including coupling set for valve insert "QA".
	Cleaning head for all valves	(100) 1188400	The valve seat can be cleaned by use of the "Demo-Bloc" and the cleaning head.
	Differential pressure measuring stem	1188093	The differential pressure above the valve seat can be measured with the "Demo-Bloc" and the differential pressure measuring stem.

Body	Inserts	Control unit	Valves (examples)	Accessories	
 <p>DN 15–DN 40</p>	 <p>Valve insert item no. 1067065 for "Hycococon VTZ/VPZ/ATZ/APZ", DN 15–DN 25</p> <p>Valve insert item no. 1067068 for "Hycococon ATZ/APZ", DN 32</p> <p>Valve insert item no. 1067069 for "Hycococon ATZ/APZ", DN 40</p> <p>Valve insert item no. 1067066 for "Hycococon VTZ/VPZ/HTZ/DTZ", DN 32</p> <p>Valve insert item no. 1067067 for "Hycococon VTZ/VPZ/HTZ/DTZ", DN 40</p>	 <p>Handwheel for isolation DN 15–DN 25 DN 32–DN 40</p>	 <p>"Hycococon ATZ" DN 15–DN 25</p>	 <p>Measuring and draining unit Item no. 1061790</p>  <p>Plug Item no. 1061798</p>	
	 <p>Valve insert item no. 1067085 for "Hycococon HTZ", DN 15–DN 25</p> <p>Valve insert item no. 1067066 for "Hycococon VTZ/VPZ/HTZ/DTZ", DN 32</p> <p>Valve insert item no. 1067067 for "Hycococon VTZ/VPZ/HTZ/DTZ", DN 40</p>	 <p>Handwheel for control DN 15–DN 25 Item no. 1061793–95 DN 32–DN 40 Item no. 106196–97</p>	 <p>"Hycococon VTZ" DN 15–DN 40</p>		
	 <p>Valve insert item no. 1067085 for "Hycococon HTZ", DN 15–DN 25</p> <p>Valve insert item no. 1067066 for "Hycococon VTZ/VPZ/HTZ/DTZ", DN 32</p> <p>Valve insert item no. 1067067 for "Hycococon VTZ/VPZ/HTZ/DTZ", DN 40</p>	 <p>Diaphragm actuator DN 15–DN 25 Item no. 1062082/ 1062282 (including valve insert) Item no. 1067085) DN 32–DN 40 Item no. 1062085/ 1062285</p>	 <p>"Hycococon DTZ" DN 15–DN 40</p>		
	<p>other valve inserts DN 15–DN 25</p> <p>"A" Item no. 1187069</p> <p>"AZ" Item no. 1187066</p> <p>P1 kvs 0.45 Item no. 1186052</p> <p>P2 kvs 1.0 Item no. 1186053</p> <p>Reversed supply/return Item no. 1187070</p> <p>"AF" Item no. 1187352</p> <p>"KTB" Item no. 1147169</p> <p>"ADV 9" Item no. 1186002</p> <p>"Hycococon ETZ" and "AV 9" Item no. 1187047</p> <p>Steam insert Item no. 1186200</p> <p>Valve insert "QA" Item no. 1187065</p>	 <p>Thermostats and actuators DN 15–DN 40 e.g. item no. 1011365</p>	 <p>"Hycococon ETZ/HTZ" thermostatic operation DN 15–DN 40</p>		
		<p>Electrothermal actuators</p> <p>Electromotive actuators</p> <p>Two point Item no. 10124..</p> <p>24 V/0–10 V Item no. 1012952</p> <p>230 V/two point Item no. 1012710</p> <p>24 V/0–10 V Item no. 1012705</p> <p>24 V/three point Item no. 1012708</p> <p>230 V/three point Item no. 1012709</p>	<p>Manual heads</p> <p>Electromotive actuators</p> <p>System EIB Item no. 1156065</p> <p>Item no. 1156066</p> <p>System LON Item no. 1157065</p>		 <p>"Hycococon ETZ/HTZ" with actuator DN 15–DN 40</p>
		<p>Further thermostats: page 1.08 and onwards</p> <p>Further actuators: page 1.26 and onwards</p>	 <p>"Uni RTLH" DN 15–DN 25 Item no. 1027165</p>		 <p>"Hycococon ETZ/HTZ" with temperature controller DN 15–DN 40</p>
		 <p>Valve insert for return temperature limitation DN 15–DN 25 Item no. 1026981</p>			
		 <p>"Combi LR" DN 15–DN 25 Item no. 1187071</p>	 <p>Spanner Control unit inside the insert</p>		

The combination summary is not valid for item no. 1068667 (DN 20 – "Hycococon HTZ" with kvs value 5.0)

Further examples can be found in the product range "Flow, pressure and temperature balancing".

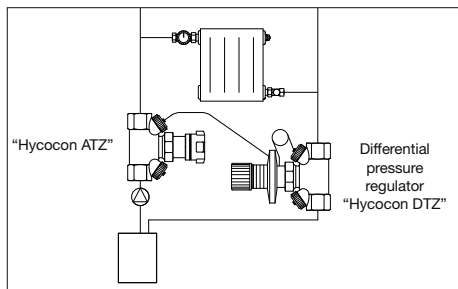
Note: The connection thread of all "Hycococon" valves sized DN 15 to DN 40 is M 30 x 1.5.



Hydronic balancing

Standard installation:

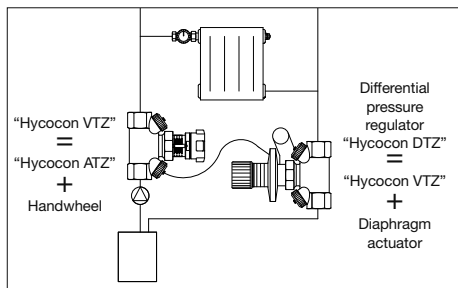
The valves "Hycococon VTZ/VPZ" and "Hycococon ATZ/APZ" allow a subsequent conversion as illustrated below.



Differential pressure regulation:

for instance consisting of the differential pressure regulators "Hycococon DTZ" and the isolating and orifice valve "Hycococon ATZ" for installations with presettable thermostatic valves.

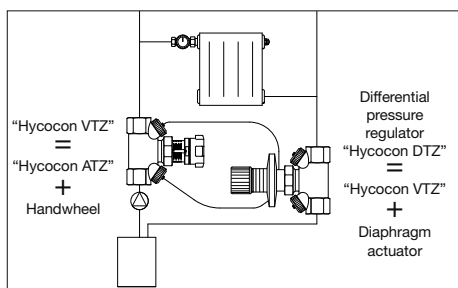
A subsequent conversion of the "Hycococon VTZ" (DN 15 – DN 40) with diaphragm actuator to differential pressure regulator "Hycococon DTZ" is possible.



Differential pressure regulation with flow limitation:

for instance consisting of the differential pressure regulator "Hycococon DTZ" and the double regulating and commissioning valve "Hycococon VTZ" for installations without presettable thermostatic valves or radiator lockshield valves in which the flow rate shall additionally be limited to the calculated value (capillary connection at the inlet nipple of the "Hycococon VTZ").

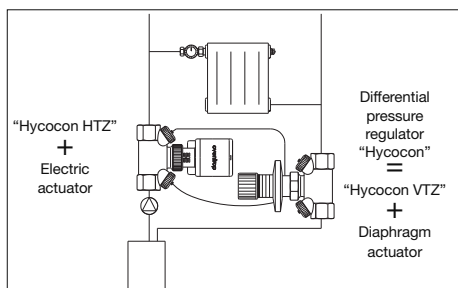
A subsequent conversion of the "Hycococon VTZ" (DN 15 – DN 40) with diaphragm actuator and use of the dismantled handwheel of the "Hycococon ATZ" is possible.



Flow regulation (DN 15 – DN 40):

for instance consisting of the differential pressure regulator "Hycococon DTZ" and the double regulating and commissioning valve "Hycococon VTZ" for installations without presettable thermostatic valves and radiator lockshield valves or for one pipe systems (capillary connection at the inlet and outlet nipple of the "Hycococon VTZ").

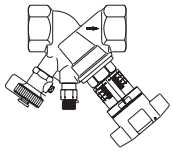
A subsequent conversion of the "Hycococon VTZ" with diaphragm actuator and use of the dismantled handwheel of the "Hycococon ATZ" is possible.



Flow regulation (DN 15 – DN 40):

for instance consisting of the regulating valve "Hycococon HTZ" and the differential pressure regulator "Hycococon DTZ" for electronically controlled installations (capillary connection at inlet and outlet nipple of the "Hycococon HTZ").

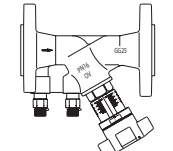
A subsequent conversion of the "Hycococon VTZ" with diaphragm actuator is required.



3.c "Hydrocontrol" Regulating and isolating valves

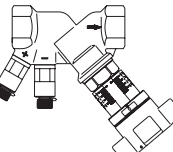
Content

"Hydrocontrol VTR" Double regulating and commissioning valves PN 25 / PN 16 3.26



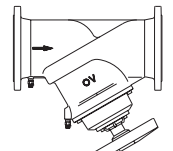
"Hydrocontrol VPR" Double regulating and commissioning valves PN 16 3.28

"Hydrocontrol VFC" Double regulating and commissioning valves PN 16 3.29



"Hydrocontrol VFC" Double regulating and commissioning valves PN 6 3.30

"Hydrocontrol VFR" Double regulating and commissioning valves PN 16 3.30



"Hydrocontrol VFN" Double regulating and commissioning valves PN 25 3.31

"Hydrocontrol VGC" Double regulating and commissioning valves PN 25 3.31

"Hydrocontrol STR" Double regulating and commissioning valves PN 25 3.32

"Hydrocontrol MTR" Double regulating and commissioning valves PN 25 3.32

"Hydrocontrol MPR" Double regulating and commissioning valves PN 16 3.32

"Hydrocontrol MFC" Double regulating and commissioning valves PN 16 3.33

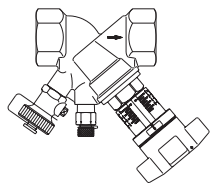
"Hydrocontrol ATR" Isolating and orifice valves PN 25 / PN 16 3.34

"Hydrocontrol APR" Isolating and orifice valves PN 16 3.34

"Hydrocontrol AFC" Isolating and orifice valves PN 16 3.34

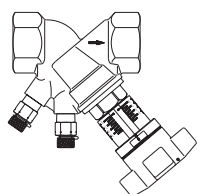
Article	kvs	Packing unit	Article-No.	Hint
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"Hydrocontrol VTR" Double regulating and commissioning valves PN 25 / PN 16 (presettable, threaded connection, bronze) "classic" measuring technique



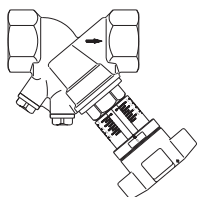
PN 25 with mounted accessories set no. 3 = 1 pressure test point G ¼ and 1 fill and drain ball valve G ¼
both ports female thread according to EN 10226

DN 10	2.88	(10)	1060303
DN 15	3.88	(10)	1060304
DN 20	5.71	(10)	1060306
DN 25	8.89	(10)	1060308
DN 32	19.45	(5)	1060310
DN 40	27.51	(5)	1060312
DN 50	38.78	(5)	1060316



PN 25 with mounted accessories set no.2=2 pressure test points G ¼
both ports female thread according to EN 10226

DN 10	2.88	(10)	1060203
DN 15	3.88	(10)	1060204
DN 20	5.71	(10)	1060206
DN 25	8.89	(10)	1060208
DN 32	19.45	(5)	1060210
DN 40	27.51	(5)	1060212
DN 50	38.78	(5)	1060216

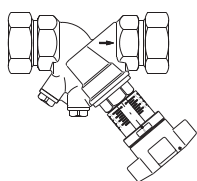


PN 25 both ports with connection for "classic" measuring technique (closed with blind plugs)
both ports female thread according to EN 10226

DN 10	2.88	(10)	1060103
DN 15	3.88	(10)	1060104
DN 20	5.71	(10)	1060106
DN 25	8.89	(10)	1060108
DN 32	19.45	(5)	1060110
DN 40	27.51	(5)	1060112
DN 50	38.78	(5)	1060116

PN 16
both ports female thread according to EN 10226

DN 65	50.00		1060120
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PN 16 both ports with connection for "classic" measuring technique (closed with blind plugs)
both ports male thread with collar nut

DN 10	2.88	(10)	1060503
DN 15	3.88	(10)	1060504
DN 20	5.71	(10)	1060506
DN 25	8.89	(10)	1060508
DN 32	19.45	(5)	1060510
DN 40	27.51	(5)	1060512
DN 50	38.78	(5)	1060516

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids, (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:
Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.

Measuring gauges: page 3.92 to 3.90

Function:

Oventrop double regulating and commissioning valves are installed in the pipework of central heating and cooling systems and serve to achieve the hydronic balance between the various circuits of the system. The double regulating and commissioning valves may be installed in either the supply or the return pipe. The valves DN 10 - DN 20 are suitable for use with compression fittings, item no. 10271..., page 3.45.

Body and bonnet made of bronze, stem and disc made of brass resistant to dezincification (DZR), disc with PTFE seal, fill and drain ball valve, blind plug and pressure test point made of brass resistant to dezincification (DZR). Colour rings to mark the supply (red) and return pipe (blue) are supplied with each valve (except for item no. 1060120).

Description "Hydrocontrol VTR":
Max. operating pressure p_s : 25 bar (PN 25), 362,5 psi
or 16 bar (PN 16), 232 psi for DN 65
Operating temperature t_s : -20 °C up to +150 °C

10601:
The sizes DN 40 and DN 50 are ACS (France) certified for installation in potable water systems.

Male thread:

DN 10 - G 5/8
DN 15 - G 3/4
DN 20 - G 1
DN 25 - G 1¼
DN 32 - G 1½
DN 40 - G 1¾
DN 50 - G 2¾

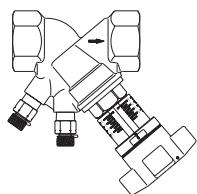
Awards:



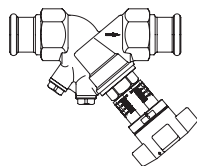
For further information see "Technical information":



Accessories: Page 3.42
Bonnet: Page 3.43
Insulation shells: Page 3.44
Tailpipe sets: Pages 1.52, 1.93, 3.45



Article	kvs	Packing unit	Article-No.	Hint
PN 25 with mounted accessories set no.2=2 pressure test points G ¼ <u>both ports female thread according to EN 10226</u>				16887...: Type approval for shipbuilding (DNV-GL).
DN 10	2.88	(10)	1688703*	
DN 15	3.88	(10)	1688704*	
DN 20	5.71	(10)	1688706*	
DN 25	8.89	(10)	1688708*	
DN 32	19.45	(5)	1688710*	
DN 40	27.51	(5)	1688712*	
DN 50	38.78	(5)	1688716*	



Article	kvs	Packing unit	Article-No.	Hint
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"Hydrocontrol VPR" Double regulating and commissioning valves PN 16 (presettable, press connection, bronze) "classic" measuring technique

PN 16 both ports with connections for "classic" measuring technique (closed with blind plugs)
both ports press connection

DN 15 Ø 15 mm	3.88	(10)	1060151
DN 15 Ø 18 mm	3.88	(10)	1060152
DN 20 Ø 22 mm	5.71	(10)	1060154
DN 25 Ø 28 mm	8.89	(10)	1060156
DN 32 Ø 35 mm	19.45	(5)	1060158
DN 40 Ø 42 mm	27.51	(5)	1060160
DN 50 Ø 54 mm	38.78	(5)	1060162

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:
Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.

Measuring gauges: page 3.92 to 3.90




Function:
Oventrop double regulating and commissioning valves are installed in the risers of central heating and cooling systems and serve to achieve the hydronic balance between the various circuits of the system. Installation is possible in either the supply or the return pipe.

Body and bonnet made of bronze, stem and disc made of brass resistant to dezincification (DZR), disc with PTFE seal, blind plug made of brass resistant to dezincification (DZR). Colour rings to mark the supply (red) and return pipe (blue) are supplied with each valve.

Description "Hydrocontrol VPR":
Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -20 °C up to +120 °C
Press connection:

For the direct connection of copper pipes according to DIN EN 1057 / DVGW GW 392, stainless steel pipes according to DIN EN 10088 / DVGW GW 541 and thin-walled C-steel pipe (material no. E195/1.0034) according to DIN EN 10305-3. Pressing must be carried out to tighten the connection. Only use press jaws with the original contours SANHA (SA), Geberit-Mapress (MM) or Viega (Profipress) in corresponding size. Processing must be carried out according to the installation instructions.

Awards:

-  International Design Award Baden-Württemberg
-  Good Design Award Japan
-  Industrial Design Forum Hanover Award iF

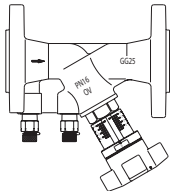
For further information see "Technical information":



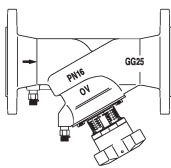
Article	kvs	Article-No.	Hint
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"Hydrocontrol VFC" Double regulating and commissioning valves PN 16 (presettable, flanged connection, cast iron) "classic" measuring technique

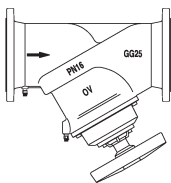
both ports flanged according to **DIN EN 1092-2**
with mounted accessories set no. 2 = 2 pressure test points G 1/4



DN 20	4.80	1062646
DN 25	8.40	1062647
DN 32	17.10	1062648
DN 40	26.90	1062649
DN 50	36.00	1062650

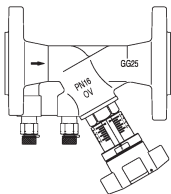


DN 65	98.00	1062651
DN 80	122.20	1062652
DN 100	201.00	1062653
DN 125	293.00	1062654
DN 150	404.30	1062655



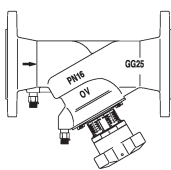
DN 200	814.50	1062656
DN 250	1,200.00	1062657
DN 300	1,600.00	1062658
DN 350	2,250.00	1062659
DN 400	3,750.00	1062660

Larger sizes on demand.

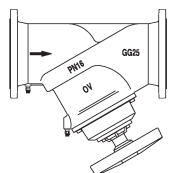


both ports flanged with hole circle according to **ANSI***
with mounted accessories set no. 2 = 2 pressure test points G 1/4

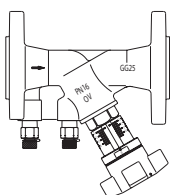
DN 20	4.80	1062946
DN 25	8.40	1062947
DN 32	17.10	1062948
DN 40	26.90	1062949
DN 50	36.00	1062950



DN 65	98.00	1062951
DN 80	122.20	1062952
DN 100	201.00	1062953
DN 125	293.00	1062954
DN 150	404.30	1062955



DN 200	814.50	1062956
DN 250	1,200.00	1062957
DN 300	1,600.00	1062958
DN 350	2,250.00	1062959
DN 400	3,750.00	1062960*



both ports flanged according to **DIN EN 1092-2**
with mounted accessories set no. 2 = 2 pressure test points G 1/4

DN 20	4.80	1688746*
DN 25	8.40	1688747*
DN 32	17.10	1688748*
DN 40	26.90	1688749*
DN 50	36.00	1688750*

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

For cooling systems: Please provide frost protection and diffusion tight insulation!

Measuring method:
Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.

Measuring gauges: page 3.92 to 3.90

Oventrop double regulating and commissioning valves with secured infinitely adjustable presetting controllable at any time by use of the flow limiting device.

Lengths according to DIN EN 558-1, basic series 1.

All functioning components in one plane.

The double regulating and commissioning valves may be installed in either the supply or the return pipe.

Function:
Oventrop double and regulating commissioning valves are installed in the pipework of central heating and cooling systems and serve to achieve the hydronic balance between the various circuits of the system.

Further additional functions:

Regulation, isolation.

Infinitely adjustable presetting.

The pressure loss can be controlled exactly by using the pressure test points.

Description "Hydrocontrol VFC":

Max. operating pressure p_s : 16 bar (PN 16)

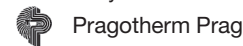
Operating temperature t_s : -10 °C up to +150 °C

Body (DN 20 - DN 300) made of cast iron (EN-GJL - 250 DIN EN 1561), DN 350 and DN 400 made of nodular cast iron (EN-GJS-500 DIN EN 1563).

Disc with PTFE or EPDM seal.

Maintenance-free stem seal due to double O-ring made of EPDM.

Award "Hydrocontrol VFC":



*US standard, class 150

For further information see "Technical information":



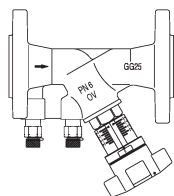
16887...

Type approval for shipbuilding (DNV-GL).

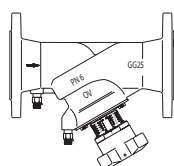
Accessories: Page 3.42
Insulation shells: Page 3.44

Article	kvs	Article-No.	Hint
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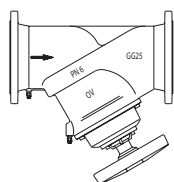
"Hydrocontrol VFC" Double regulating and commissioning valves PN 6
 both ports flanged according to **DIN EN 1092-2**
 with mounted accessories set no. 2 = 2 pressure test points G ¼



DN 20	4.80	1062676
DN 25	8.40	1062677
DN 32	17.10	1062678
DN 40	26.90	1062679
DN 50	36.00	1062680

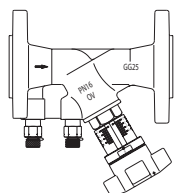


DN 65	98.00	1062681
DN 80	122.20	1062682
DN 100	201.00	1062683
DN 125	293.00	1062684
DN 150	404.30	1062685

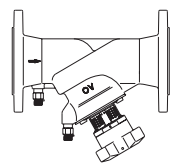


DN 200	814.50	1062686
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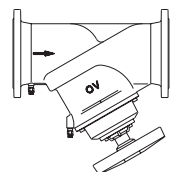
"Hydrocontrol VFR" Double regulating and commissioning valves PN 16
 (presettable, flanged connection, bronze)
 "classic" measuring technique
 both ports flanged according to **DIN EN 1092-2**
 with mounted accessories set no. 2 = 2 pressure test points G ¼



DN 50	36.00	1062350
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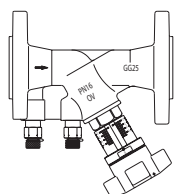


DN 65	98.00	1062351
DN 80	122.20	1062352
DN 100	201.00	1062353
DN 125	293.00	1062354
DN 150	404.30	1062355



DN 200	814.50	1062356
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both ports flanged according to **DIN EN 1092-2**
 with mounted accessories set no. 2 = 2 pressure test points G ¼



DN 50	36.00	1688350*
DN 200	814.50	1688356*

Application:
 Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).
 Measuring method:
 Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.

Measuring gauges: page 3.90 to 3.92
 Oventrop double regulating and commissioning valves with secured infinitely adjustable presetting controllable at any time by use of the flow limiting device.
 Lengths according to DIN EN 558-1, basic series 1.
 All functioning components in one plane.

Function:
 Oventrop double regulating and commissioning valves are installed in the pipework of central heating and cooling systems and serve to achieve the hydronic balance between the various circuits of the system.
 Further additional functions:
 Regulation, isolation.
 Infinitely adjustable presetting.
 The pressure loss can be controlled exactly by using the pressure test points.
 Lead lockable presetting.
 The double regulating and commissioning valves may be installed in either the supply or the return pipe.

Description "Hydrocontrol VFC":
 Max. operating pressure p_s : 16 bar (PN 6)
 Operating temperature t_s : -10 °C up to +150 °C

Body (DN 20 - DN 200) made of cast iron (EN-GJL - 250 DIN EN 1561).
 Disc with PTFE seal.
 Maintenance-free stem seal due to double O-ring made of EPDM.

Description "Hydrocontrol VFR":
 Max. operating pressure p_s : 16 bar (PN 16)
 Operating temperature t_s : -20 °C up to +150 °C
 Body, bonnet and disc made of bronze, stainless steel stem, disc with PTFE seal.
 Maintenance-free stem seal due to double O-ring made of EPDM.

The bronze double regulating and commissioning valves "Hydrocontrol VFR" may also be used for cold salt water (max. 38 °C) and domestic water.

For further information see "Technical information":



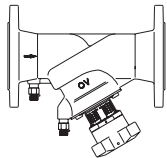
16883..:
 Type approval for shipbuilding (DNV-GL).

Accessories: Page 3.42
 Insulation shells: Pages 8.20, 3.44

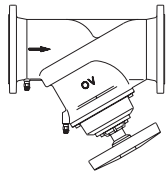
Article kvs Article-No. Hint

"Hydrocontrol VFN" Double regulating and commissioning valves PN 25 (presettable, flanged connection, nodular cast iron) "classic" measuring technique

both ports flanged according to DIN EN 1092-2
 with mounted accessories set no. 2 = 2 pressure test points G ¼



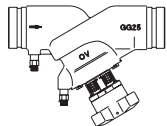
DN 65	98.00	1062451
DN 80	122.20	1062452
DN 100	201.00	1062453
DN 125	293.00	1062454
DN 150	404.30	1062455



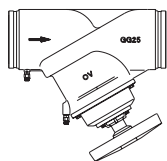
DN 200	814.50	1062456
DN 250	1,200.00	1062457
DN 300	1,600.00	1062458

"Hydrocontrol VGC" Double regulating and commissioning valves PN 25 (presettable, groove connection, cast iron) "classic" measuring technique

both ports groove connection for couplings
 with mounted accessories set no. 2 = 2 pressure test points G ¼



DN 65	98.00	1063051
DN 65	98.00	1064051
DN 80	122.20	1063052
DN 100	201.00	1063053
DN 125	293.00	1063054
DN 125	293.00	1064054
DN 150	404.30	1063055
DN 150	404.30	1064055



DN 200	814.50	1063056
DN 250	1,200.00	1063057
DN 300	1,600.00	1063058

Suitable for couplings of the systems Victaulic and Grinell and similar.

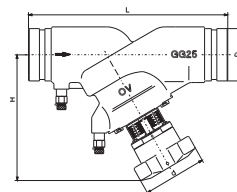
Application:
 Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:
 Determination of the flow rate by measuring the differential pressure and taking the presetting values into consideration.
 Measuring gauges: page 3.90 to 3.92

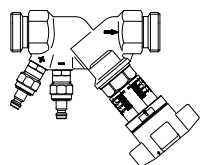
Function:
 Oventrop double regulating and commissioning valves are installed in the pipework of central heating and cooling systems and serve to achieve the hydronic balance between the various circuits of the system.
 Further additional functions:
 Regulation, isolation.
 Infinitely adjustable presetting.
 The pressure loss can be controlled exactly by using the pressure test points.
 Lead lockable presetting.
 The double regulating and commissioning valves may be installed in either the supply or the return pipe.

Description "Hydrocontrol VFN":
 Max. operating pressure p_s : 25 bar (PN 25)
 Operating temperature t_s : -20 °C up to +150 °C
 Body made of nodular cast iron (EN-GJS - 500 DIN EN 1563), stem made of brass resistant to dezincification. Disc with PTFE seal.
 Maintenance-free stem seal due to double O-ring made of EPDM.

Description "Hydrocontrol VGC":
 Max. operating pressure p_s : 25 bar (PN 25)
 Operating temperature t_s : -10 °C up to +150 °C
 Body made of cast iron (EN-GJL - 250 DIN EN 1561), stem made of brass resistant to dezincification.
 Disc with PTFE seal. Maintenance-free stem seal due to double O-ring made of EPDM.



Item no.	DN	L	D	H	d
1063051	65	290	73.0	200	160
1064051	65	290	76.1	200	160
1063052	80	310	88.9	215	160
1063053	100	350	114.3	244	160
1064054	125	400	139.7	289	160
1063054	125	400	141.3	289	160
1064055	150	480	165.1	293	160
1063055	150	480	168.3	293	160
1063056	200	600	219.1	467	300
1063057	250	730	273.0	480	300
1063058	300	850	323.9	515	300



"Hydrocontrol STR" Double regulating and commissioning valves PN 25

(solar, threaded connection, bronze)
 with integrated metering station, quick-coupling measuring technique, both ports compression connection for compression fittings "Regusol"

Article	kvs	Packing unit	Article-No.
DN 20 LF	1.04	(10)	1369050
DN 20 MF	2.60	(10)	1369055

both ports female thread according to EN 10226

DN 20 LF	1.04	(10)	1369062
DN 20 MF	2.60	(10)	1369065

"Hydrocontrol MTR" Double regulating and commissioning valves PN 25

(metering station, threaded connection, bronze)
 with integrated metering station, "classic" measuring technique

both ports female thread according to EN 10226

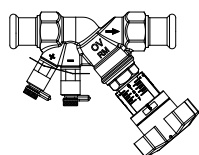
DN 15 LF	0.55	(10)	1060464
DN 15 MF	1.15	(10)	1060434
DN 15 HF	2.10	(10)	1060404
DN 20	3.70	(10)	1060406
DN 25	6.10	(10)	1060408
DN 32	12.50	(5)	1060410
DN 40	18.10	(5)	1060412
DN 50	30.50	(5)	1060416

"Hydrocontrol MPR" Double regulating and commissioning valves PN 16

(metering station, press connection, bronze)
 with integrated metering station, "classic" measuring technique

both ports press connection

DN 15 LF	Ø 15 mm	0.55	(10)	1060651
DN 15 MF	Ø 15 mm	1.15	(10)	1061651
DN 15 HF	Ø 15 mm	2.10	(10)	1060451
DN 15 HF	Ø 18 mm	2.10	(10)	1060452
DN 20	Ø 22 mm	3.70	(10)	1060454
DN 25	Ø 28 mm	6.10	(10)	1060456
DN 32	Ø 35 mm	12.50	(5)	1060458
DN 40	Ø 42 mm	18.10	(5)	1060460
DN 50	Ø 54 mm	30.50	(5)	1060462



Application "Hydrocontrol STR":
 Solar plants with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).
 Measuring method:
 Determination of the flow rate by measuring the differential pressure via the metering station.

Description "Hydrocontrol STR":
 Max. operating pressure p_s : 25 bar (PN 25)
 Operating temperature t_s : -20 °C up to +200 °C
 Especially for solar plants. As the valve has no isolation function, a minimum flow rate is guaranteed. It is used for the hydronic balancing of collector fields.

Accessories:
 Compression fittings "Regusol": page: 9.31

Application "Hydrocontrol MTR/MPR":
 Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:
 Determination of the flow rate by measuring the differential pressure via the metering station.
 Modification of the flow rates irrespective of the presetting values can be read off directly with the help of the measuring gauges "OV-DMC 3"/"OV-DMC 2"/"OV-DMPC".

Description "Hydrocontrol MTR":
 Max. operating pressure p_s : 25 bar (PN 25), 362,5 psi
 Operating temperature t_s : -20 °C up to +150 °C
 Colour rings to mark the supply (red) and the return pipe (blue) are supplied with each valve.

Description "Hydrocontrol MPR":
 Max. operating pressure p_s : 16 bar (PN 16), 232 psi
 Operating temperature t_s : -20 °C up to +120 °C

Colour rings to mark the supply (red) and the return pipe (blue) are supplied with each valve.

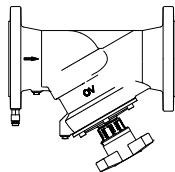
Press connection:
 For the direct connection of copper pipes according to DIN EN 1057 / DVGW GW 392, stainless steel pipes according to DIN EN 10088 / DVGW GW 541 and thin-walled C-steel pipe (material no. E195/1.0034) according to DIN EN 10305-3. Pressing must be carried out to tighten the connection. Only use press jaws with the original contours SANHA (SA), Geberit-Mapress (MM) or Viega (Profipress) in corresponding size. Processing must be carried out according to the installation instructions.

kvs values of the metering-stations
 "Hydrocontrol MTR/MPR":

DN 15 LF:	0.55
DN 15 MF:	1.2
DN 15 HF:	2.2
DN 20:	4.25
DN 25:	8.6
DN 32:	15.9
DN 40:	23.4
DN 50:	47

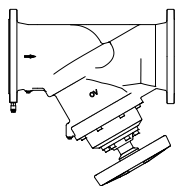
Article	kvs	Article-No.	Hint
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"Hydrocontrol MFC" Double regulating and commissioning valves PN 16 (metering station, flanged connection, cast iron) "classic" measuring technique



both ports flanged according to **DIN EN 1092-2**
with mounted accessories set no. 2 = 2 pressure test points G 1/4

DN 65	86.70	1065851
DN 80	102.00	1065852
DN 100	198.00	1065853
DN 125	271.00	1065854
DN 150	400.00	1065855



DN 200	750.00	1065856
DN 250	1,090.00	1065857
DN 300	1,500.00	1065858

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

For cooling systems: Please provide frost protection and diffusion tight insulation!

Measuring method:
Determination of the flow rate by measuring the differential pressure via the metering station.
Measuring gauges: page 3.92 to 3.90

Oventrop double regulating and commissioning valves, with secured infinitely adjustable presetting controllable at any time by use of the flow limiting device.
Lengths according to DIN EN 558-1, basic series 1.

All functioning components in one plane.

The double regulating and commissioning valves may be installed in either the supply or the return pipe.

Function:
Oventrop double regulating and commissioning valves are installed in the pipework of central heating and cooling systems and serve to achieve a hydronic balance between the various circuits of the system.

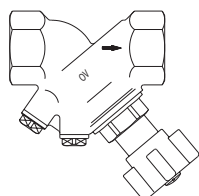
Further additional functions:
Regulation, isolation.
Infinitely adjustable presetting.

Description "Hydrocontrol MFC":
Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -10 °C up to +150 °C

Body made of cast iron (EN-GJL - 250 DIN EN 1561).
Disc with PTFE or EPDM seal.
Maintenance-free stem seal due to double EPDM O-ring.

Article	kvs	Packing unit	Article-No.	Hint
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"Hydrocontrol ATR" Isolating and orifice valves PN 25 / PN 16 (with isolating facility, threaded connection, bronze)
with two threaded ports for "classic" measuring technique (closed with blind plugs)
without presetting

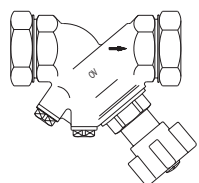


PN 25 both ports female thread according to EN 10226

DN 10	2.88	(10)	1067503
DN 15	3.88	(10)	1067504
DN 20	5.71	(10)	1067506
DN 25	8.89	(10)	1067508
DN 32	19.45	(5)	1067510
DN 40	27.51	(5)	1067512
DN 50	38.78	(5)	1067516

PN 16 both ports female thread according to EN 10226

DN 65	50.00		1067520
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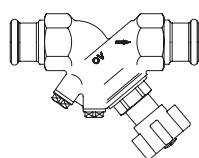


PN 16 both ports male thread with collar nut

DN 10	2.88	(10)	1067603
DN 15	3.88	(10)	1067604
DN 20	5.71	(10)	1067606
DN 25	8.89	(10)	1067608
DN 32	19.45	(5)	1067610
DN 40	27.51	(5)	1067612
DN 50	38.78	(5)	1067616

"Hydrocontrol APR" Isolating and orifice valves PN 16 (with isolating facility, press connection, bronze)

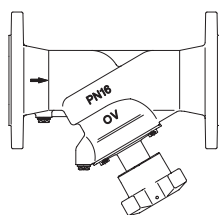
with two threaded ports for "classic" measuring technique (closed with blind plugs)
without presetting
PN 16 both ports press connection



DN 15 Ø 15 mm	3.88	(10)	1067551
DN 15 Ø 18 mm	3.88	(10)	1067552
DN 20 Ø 22 mm	5.71	(10)	1067554
DN 25 Ø 28 mm	8.89	(10)	1067556
DN 32 Ø 35 mm	19.45	(5)	1067558
DN 40 Ø 42 mm	27.51	(5)	1067560
DN 50 Ø 54 mm	38.78	(5)	1067562

"Hydrocontrol AFC" Isolating and orifice valves PN 16 (with isolating facility, flanged connection, cast iron)

with two threaded ports for "classic" measuring technique (closed with blind plugs)
without presetting
both ports flanged according to DIN EN 1092-2



DN 65	98.00		1062051
DN 80	122.00		1062052
DN 100	201.00		1062053
DN 125	293.00		1062054
DN 150	404.30		1062055

Application:

Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Description "Hydrocontrol ATR":

Max. operating pressure p_s : 25 bar (PN 25) or 16 bar (PN 16)
Operating temperature t_s : -20 °C up to +150 °C

Body and bonnet made of bronze, stem and disc made of brass resistant to dezincification (DZR), disc with PTFE seal, blind plugs made of brass resistant to dezincification (DZR).

Colour rings to mark the supply (red) and the return pipe (blue) are supplied with each valve.

Male thread

DN 10 - G $\frac{5}{8}$
DN 15 - G $\frac{3}{4}$
DN 20 - G 1
DN 25 - G 1 $\frac{1}{4}$
DN 32 - G 1 $\frac{1}{2}$
DN 40 - G 1 $\frac{3}{4}$
DN 50 - G 2 $\frac{3}{8}$

Description "Hydrocontrol APR":

Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -20 °C up to +120 °C

Press connection:

For the direct connection of copper pipes according to DIN EN 1057 / DVGW GW 392, stainless steel pipes according to DIN EN 10088 / DVGW GW 541 and thin-walled C-steel pipe (material no. E195/1.0034) according to DIN EN 10305-3. Pressing must be carried out to tighten the connection. Only use press jaws with the original contours SANHA (SA), Geberit-Mapress (MM) or Viega (Profipress) in corresponding size. Processing must be carried out according to the installation instructions.

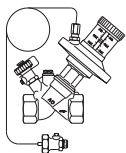
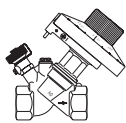
For further information see "Technical information":



Description "Hydrocontrol AFC":

Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -10 °C up to +150 °C

Body made of cast iron.



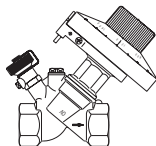
3.d "Hydromat" Differential pressure and flow regulators

Content

"Hydromat QTR" Flow regulators PN 16	3.36
"Hydromat DTR" Differential pressure regulators PN 16	3.37
"Hydrocontrol"/ "Hydromat" System examples	3.39
"Hydromat DFC" Differential pressure regulators PN 16	3.38

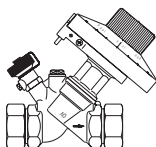
Article	Flow range	Article-No.	Hint
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"Hydromat QTR" Flow regulators PN 16 (flow control, threaded connection, bronze) with draining facility



both ports female thread according to EN 10226

DN 15	100 - 800 kg /h	1061504
DN 20	100 - 1,200 kg /h	1061506
DN 25	200 - 1,900 kg /h	1061508
DN 32	300 - 3,000 kg /h	1061510
DN 40	400 - 4,000 kg /h	1061512



both ports male thread with collar nuts

DN 15	100 - 800 kg /h	1061604
DN 20	100 - 1,200 kg /h	1061606
DN 25	200 - 1,900 kg /h	1061608
DN 32	300 - 3,000 kg /h	1061610
DN 40	400 - 4,000 kg /h	1061612

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Function:
Oventrop flow regulators for a local or central regulation of the flow in existing or new buildings. Installation is possible in either the supply or the return pipe. The flow rate is set to the required nominal value. Oventrop flow regulators are proportional regulators working without auxiliary energy. With the flow in the installation increasing, the valve disc closes down to maintain a constant flow within a necessary proportional band.

Description "Hydromat QTR":
Max. operating pressure p_s : 10 bar (PN 16)
Operating temperature t_s : -10 °C up to +120 °C
Body and bonnet made of bronze.
The regulators DN 15 and DN 20 with female thread are suitable for use with the compression fittings, item no. 10271..., page 3.45.

Male thread:
DN 15 - G 3/4
DN 20 - G 1
DN 25 - G 1 1/4
DN 32 - G 1 1/2
DN 40 - G 1 3/4

For further information see "Technical information":



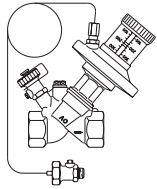
Awards:

-  Industrial Design Forum Hanover Award iF
-  Interclima Paris Trophée du Design
-  Aqua-Therm Prague Design Award Switzerland

Accessories: Page 3.42
Bonnets: Page 3.43
Tailpipe sets: Pages 1.52, 1.93, 3.45
Measuring gauges: Page 3.92

Article	kvs	Article-No.	Hint
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"Hydromat DTR" Differential pressure regulators PN 16 (differential pressure control, threaded connection, bronze) with connection set and draining facility

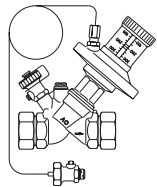


both ports female thread according to EN 10226
Nominal value: 50 to 300 mbar, infinitely adjustable

DN 15	2.50	1064504
DN 20	5.00	1064506
DN 25	7.50	1064508
DN 32	10.00	1064510
DN 40	15.00	1064512
DN 50	34.00	1064516

both ports female thread according to EN 10226
Nominal value: 250 to 700 mbar, infinitely adjustable

DN 15	2.50	1064704
DN 20	5.00	1064706
DN 25	7.50	1064708
DN 32	10.00	1064710
DN 40	15.00	1064712
DN 50	34.00	1064716



both ports male thread with collar nut
Nominal value: 50 to 300 mbar, infinitely adjustable

DN 15	2.50	1064604
DN 20	5.00	1064606
DN 25	7.50	1064608
DN 32	10.00	1064610
DN 40	15.00	1064612
DN 50	34.00	1064616

both ports male thread with collar nut
Nominal value: 250 to 700 mbar, infinitely adjustable

DN 15	2.50	1064804
DN 20	5.00	1064806
DN 25	7.50	1064808
DN 32	10.00	1064810
DN 40	15.00	1064812
DN 50	34.00	1064816

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

All functioning components in one plane.

Function:

Oventrop differential pressure regulators are proportional regulators working without auxiliary energy. They are used in existing or new buildings for a local or central regulation of the differential pressure.

With the differential pressure in the installation increasing, the valve disc closes down to maintain a constant differential pressure within a necessary proportional band.

The differential pressure is set to the desired nominal value. The nominal value is infinitely adjustable and lockable.

The differential pressure regulators are designed for installation in the return pipe.

Further additional functions: Isolating, filling and draining.

The regulators are supplied complete with connection set (capillary length 1 m).

Male thread:

DN 15 - G 3/4

DN 20 - G 1

DN 25 - G 1 1/4

DN 32 - G 1 1/2

DN 40 - G 1 3/4

DN 50 - G 2 3/8

Description "Hydromat DTR":

Max. operating pressure p_s : 10 bar (PN 16), 232 psi

Operating temperature t_s : -10 °C up to +120 °C

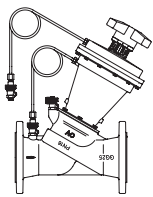
Body and bonnet made of bronze. Disc and stem made of brass resistant to dezincification (DZR), disc with EPDM seal.


Maintenance-free stem seal due to double O-ring made of EPDM.

The regulators DN 15 and DN 20 are suitable for use with the compression fittings, item no. 10271..., page 3.45.

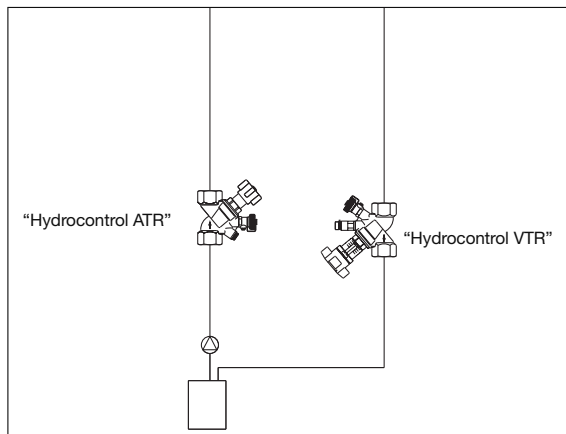
For further information see "Technical information":





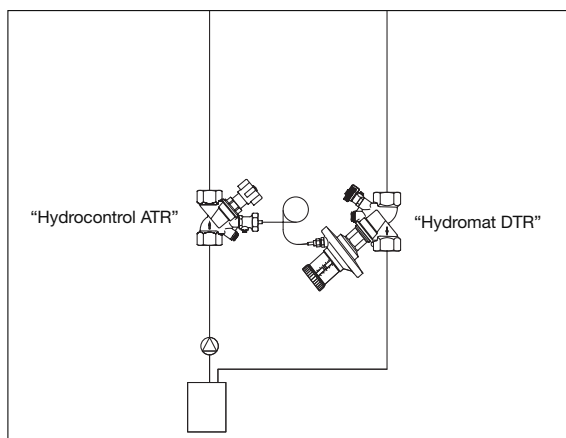
Article	kvs	Article-No.	Hint
"Hydromat DFC" Differential pressure regulators PN 16 (differential pressure control, flanged connection, cast iron) with connection set and draining facility			<p>Application: Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195). All functioning components in one plane. Function: Oventrop differential pressure regulators are proportional regulators working without auxiliary energy. They are used in existing or new buildings for a local or central regulation of the differential pressure. With the differential pressure in the installation increasing, the valve disc closes down to maintain a constant differential pressure within a necessary proportional band. The differential pressure is set to the required nominal value. The nominal value is infinitely adjustable and lockable. The differential pressure regulators are designed for installation in the return pipe. Further additional functions: Isolation, filling and draining</p> <p>The regulators are supplied complete with connection set (capillary length 1 m).</p> <p>Description "Hydromat DFC": Max. operating pressure p_s: 16 bar (PN 16) Operating temperature t_s: -10 °C up to +120 °C Body made of cast iron (EN-GJL-250 DIN EN 1561). Lengths according to DIN EN 558-1, basic series 1. Bonnet made of bronze, stem made of brass resistant to dezincification (DZR), disc made of stainless steel with EPDM seal. Maintenance-free stem seal due to double O-ring made of EPDM.</p> <p>For further information see "Technical information":</p> 
<u>both ports flanged according to EN 1092-2</u> Nominal value: 200 to 1000 mbar, infinitely adjustable			
DN 65	52.00	1064651	
DN 80	75.00	1064652	
DN 100	110.00	1064653	
DN 125	145.00	1064654	
DN 150	170.00	1064655	
<u>both ports flanged according to EN 1092-2</u> Nominal value: 400 to 1800 mbar, infinitely adjustable			
DN 65	52.00	1064751	
DN 80	75.00	1064752	
DN 100	110.00	1064753	
DN 125	145.00	1064754	
DN 150	170.00	1064755	
DN 200	420.00	1064756	
<u>both ports flanged with hole circle according to ANSI</u> Nominal value: 400 to 1800 mbar, infinitely adjustable			
DN 65	52.00	1064951	
DN 80	75.00	1064952	
DN 100	110.00	1064953	
DN 125	145.00	1064954	
DN 150	170.00	1064955	

Further examples can be found in the product range "Flow, pressure and temperature balancing".



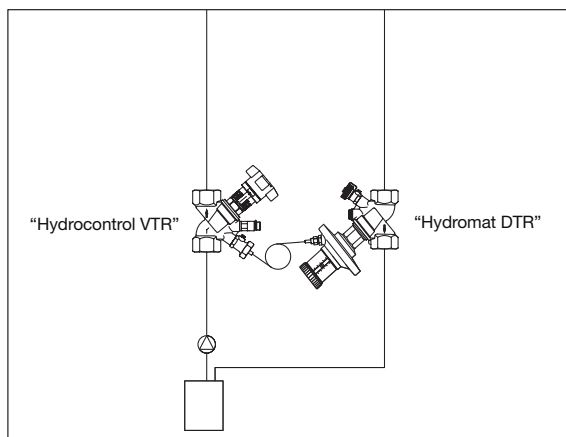
Standard installation:

for instance consisting of the double regulating and commissioning valve "Hydrocontrol VTR" and the isolating and orifice valve "Hydrocontrol ATR" for installations in which a hydronic balancing between the individual supply risers is required.



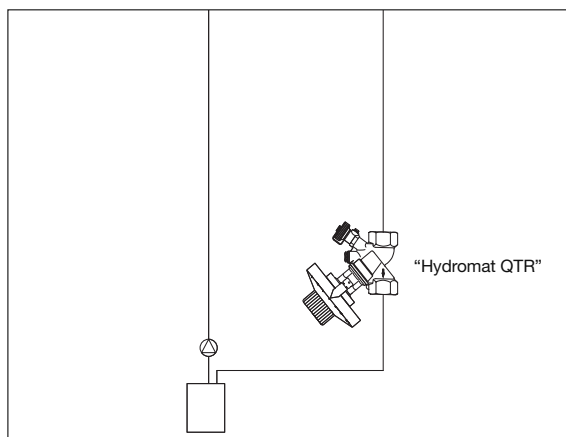
Differential pressure regulation:

for instance consisting of the differential pressure regulator "Hydromat DTR" and the isolating and orifice valve "Hydrocontrol ATR" for installations with presettable thermostatic valves.



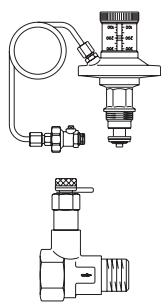
Differential pressure regulation with flow limitation:

for instance consisting of the differential pressure regulator "Hydromat DTR" and the double regulating and commissioning valve "Hydrocontrol VTR" for installations without presettable thermostatic valves or radiator lockshield valves in which the flow rate shall additionally be limited to the calculated value.



Flow regulation:



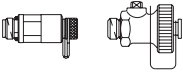

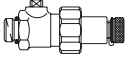
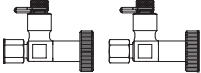
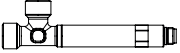
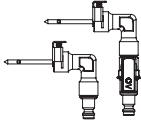

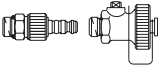
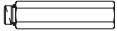
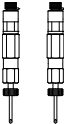

for instance consisting of the flow regulator "Hydromat QTR" for installations in which the rate in the individual supply risers shall be constantly maintained.



3.e Accessories for "Hydrocontrol", "Hydromat", "Hycocoon"

Content

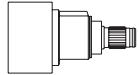
Connection sets	3.42
Stem extensions	3.43
Bonnets	3.43
Diaphragm actuators	3.43
Insulation shells	3.44
Accessories	3.44
Tailpipe sets	3.45
"Ofix" Compression fittings	3.45
Metering stations	3.46

Article	Packing unit	Article-No.	Hint
Connection sets for subsequent conversion of double regulating and commissioning valves "Hydrocontrol" and for valves with "classic" measuring technique			
	(50)	1060191	
	(50)	1060281	Pressure test points made of brass resistant to dezincification (DZR).
	(50)	1060381	
	(50)	1060298	
	(50)	1060296	Extended measuring adapter.
	(10)	1060299	For differential pressure measurement at the differential pressure regulators "Hydromat DTR/DFC".
	(50)	1688290	For differential pressure measurement, for instance at the double regulating and commissioning valve, and simultaneous connection of the capillary of the differential pressure regulator.
	(50)	1069199	
	(50)	1060291	Quick-coupling technic.
	(50)	1060391	Quick-coupling technic.
	(50)	1060295 1688295	Pressure test point extension, can only be mounted after having drained the system.
	(50)	1060282	The pressure test point extensions can be mounted without draining the system.
	(50)	4209090	Set = 2 pressure test points G 1/4

Article	Packing unit	Article-No.	Hint
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Stem extensions

For double regulating and commissioning valves "Hydrocontrol VTR/ VPR/ MTR/ VFR/ VFC/ VFN/ VGC/ AFC".



DN 10 - DN 50		1688296
DN 65 - DN 150		1688297

L = 35 mm.
For valve insulation with standard insulation material. Not suitable for use with Oventrop insulation shells.

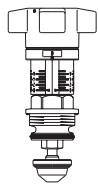


Capillary 2 m long for "Hycococon DTZ" and "Hydromat DTR"	(10)	1062095
Capillary 5 m long for "Hycococon DTZ" and "Hydromat DTR"	(10)	1062097

The capillary can also be used for "Hydromat DTR" manufactured since 2012.

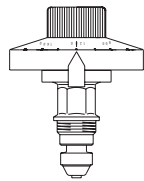
Bonnets

for bronze double regulating and commissioning valves "Hydrocontrol VTR/VPR", "Hydrocontrol MTR/MPR" and cast iron double regulating and commissioning valves "Hydrocontrol VFC"



DN 10		1069003
DN 15		1069004
DN 20		1069006
DN 25		1069008
DN 32		1069010
DN 40		1069012
DN 50		1069016

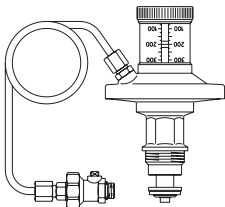
The bonnets are required for replacement purposes or for the conversion of e. g. orifice and isolating valves to double regulating and commissioning valves.
Bonnets item no. 4208192 (page 8.32) only for "Hydrocontrol MTR/MPR" DN 15 LF.



for flow regulator "Hydromat QTR"		
DN 15		1061592
DN 20		1061593
DN 25		1061594
DN 32		1061595
DN 40		1061596

Diaphragm actuators

for differential pressure regulator "Hydromat DTR", complete with connection set



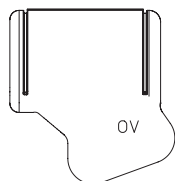
Nominal value: 50 to 300 mbar, infinitely adjustable		
DN 15		1064592
DN 20		1064593
DN 25		1064594
DN 32		1064595
DN 40		1064596
DN 50		1064597

Nominal value: 250 to 700 mbar, infinitely adjustable

DN 15		1064792
DN 20		1064793
DN 25		1064794
DN 32		1064795
DN 40		1064796
DN 50		1064797

Article	Packing unit	Article-No.	Hint
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Insulation shells



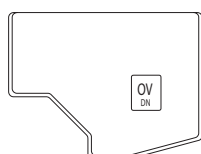
Insulation shells made of polyethylene flexible foam for "Hydrocontrol VTR/VPR", "Hydrocontrol ATR/APR", "Hydromat QTR" and "Hydromat DTR"
Operating temperature t_s : +100 °C

DN 10 - DN 15	(100)	1060481
DN 20	(100)	1060482
DN 25	(125)	1060483
DN 32	(100)	1060484
DN 40	(100)	1060485
DN 50	(100)	1060486

Meet the requirements of the German Energy Saving Directive (EnEV) according to appendix 5, table 1, line 5.

Only for heating systems.

Building material class B1 according to DIN 4102.

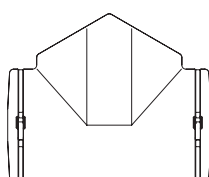


Insulation shells made of polyurethane rigid foam for "Hydrocontrol VTR/VPR", "Hydrocontrol ATR/APR", "Hydromat QTR", "Hydromat DTR", as well as for free-flow valves "Aquaström F" and "Aquaström KFR" valves
Operating temperature t_s : +130°C (for short periods up to +150°C)

DN 10 - DN 15		1060081
DN 20		1060082
DN 25		1060083
DN 32		1060084
DN 40		1060085
DN 50		1060086

Insulation shells (two-part) made of polyurethane with tongue-and-groove fitting. Meet the requirements of the German Energy Saving Directive (EnEV), appendix 5, table 1, line 5.

Building material class B2 according to DIN 4102.



Insulation shells made of polyurethane rigid foam with polystyrene shell for double regulating and commissioning valves "Hydrocontrol VFC", "Hydrocontrol VFR", "Hydrocontrol VFN", "Hydrocontrol VGC" and "Hydrocontrol AFC"
Operating temperature t_s : -10 °C up to +130 °C

For heating and cooling systems.

Building material class B2 according to DIN 4102.

Meet the requirements of the German Energy Saving Directive (EnEV) according to appendix 5, table 1, line 5.

Cold insulation:

Min. fluid temperature: +6 °C

The insulation shells have to be bonded hermetically (restricted diffusion tightness at low fluid temperature and at high ambient temperature and/or humidity).

DN 20		1062581
DN 25		1062582
DN 32		1062583
DN 40		1062584
DN 50		1062585
DN 65		1062586
DN 80		1062587
DN 100		1062588
DN 125		1062589
DN 150		1062590

Accessories

for the double regulating and commissioning valves "Hydrocontrol VTR/VPR" (up to DN 50), "Hydrocontrol VFC" (up to DN 50) and "Hydrocontrol MTR/MPR"



Lead sealing set (10 fold) (10) **1089091**

Consisting of lead seal and locking wire.

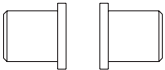
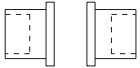
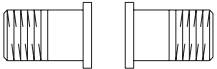


Locking set (1 fold) (25) **1060180**

Consisting of locking cap, lead seal and locking wire.

Marking ring

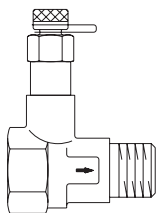
blue	(50)	1069650
red	(50)	1069651
violet	(50)	1069652
green	(50)	1069653

Colour rings for marking the risers to be clipped onto the handwheel.

Article	Packing unit	Article-No.	Hint
Tailpipe sets			Application: Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).
for "Hycococon", "Hydrocontrol" and "Hydromat"			
	Set 5 = 2 weldable tailpipes		Max. operating pressure p _s : 16 bar (PN 16) Operating temperature t _s : -20 °C up to +150 °C
	for valve DN 10 (10) 1060591		
	for valve DN 15 (10) 1060592		
	for valve DN 20 (10) 1060593		
	for valve DN 25 (10) 1060594		
	for valve DN 32 (5) 1060595		
	for valve DN 40 (5) 1060596		
	for valve DN 50 (5) 1060597		
	Set 6 = 2 solder tailpipes		
	18 mm for valve DN 15 (10) 1061091		
	15 mm for valve DN 15 (10) 1061092		
	18 mm for valve DN 20 (10) 1061093		
	22 mm for valve DN 20 (10) 1061094		
	28 mm for valve DN 25 (10) 1061095		
	35 mm for valve DN 32 (5) 1061096		
	42 mm for valve DN 40 (5) 1061097		
	54 mm for valve DN 50 (5) 1061098		
	Set 7 = 2 male threaded tailpipes		
	R 3/8 for valve DN 10 (10) 1061491		
	R 1/2 for valve DN 15 (10) 1061492		
	R 3/4 for valve DN 20 (10) 1061493		
	R 1 for valve DN 25 (10) 1061494		
	R 1 1/4 for valve DN 32 (5) 1061495		
	R 1 1/2 for valve DN 40 (5) 1061496		
	R 2 for valve DN 50 (5) 1061497		
	Set 8 = 2 female threaded tailpipes		
	Rp 1/2 for valve DN 15 (10) 1061392		
	Rp 3/4 for valve DN 20 (10) 1061393		
	Rp 1 for valve DN 25 (10) 1061394		
	Rp 1 1/4 for valve DN 32 (5) 1061395		
"Ofix" Compression fittings			Application: Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).
brass			
for female thread			Max. operating pressure p _s : 25 bar (PN 25) Operating temperature t _s : -20 °C up to +150 °C
"Ofix CEP" for copper pipes according to DIN EN 1057 compression nut nickel plated, metal to metal sealing			
	G 3/8 x 10 mm (10) 1027151		The "Ofix" compression fittings for female thread are not supplied as a set of 2 pieces.
	G 3/8 x 12 mm (10) 1027152		
	G 1/2 x 10 mm (10) 1027150		
	G 1/2 x 12 mm (10) 1027153		
	G 1/2 x 14 mm (10) 1027154		
	G 1/2 x 15 mm (10) 1027155		
	G 1/2 x 16 mm (10) 1027156		
	G 3/4 x 18 mm (10) 1027157		
	G 3/4 x 22 mm (10) 1027158		

Article	kvs	Packing unit	Article-No.	Hint
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Metering stations

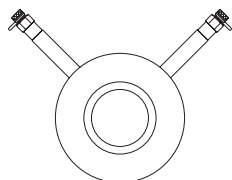


**PN 25 with 2 pressure test points
"classic" measuring technique**

made of brass resistant to dezincification (DZR)

inlet port female thread, outlet port male thread

DN 15 LF	0.55	(10)	1060644
DN 15 MF	1.20	(10)	1060634
DN 15	2.20	(10)	1060604
DN 20	4.25	(10)	1060606
DN 25	8.60	(10)	1060608
DN 32	15.90	(10)	1060610
DN 40	23.70	(10)	1060612
DN 50	48.00	(10)	1060616



**Wafer type to fit between two flanges
"classic" measuring technique**

made of stainless steel PN 16
with 2 extended pressure test points

DN 65	102.00		1060751°
DN 80	120.00		1060752°
DN 100	234.00		1060753
DN 125	335.00		1060754
DN 150	522.00		1060755
DN 200	780.00		1060756
DN 250	1,197.00		1060757
DN 300	1,810.00		1060758
DN 350	2,050.00		1060759
DN 400	2,650.00		1060760
DN 450	3,400.00		1060761
DN 500	4,200.00		1060762
DN 600	6,250.00		1060763
DN 700	10,690.00		1060764
DN 800	14,000.00		1060765
DN 900	17,577.00		1060766
DN 1,000	22,540.00		1060767

made of stainless steel PN 25
with 2 extended pressure test points

DN 100	234.00		1060853
DN 125	335.00		1060854
DN 150	522.00		1060855
DN 200	780.00		1060856
DN 250	1,197.00		1060857
DN 300	1,810.00		1060858
DN 350	2,050.00		1060859
DN 400	2,650.00		1060860
DN 450	3,400.00		1060861
DN 500	4,200.00		1060862
DN 600	6,250.00		1060863

made of cast iron (EN-GJL-250 DIN EN 1561) PN 16
with 2 extended pressure test points (L = 32 mm)

DN 65 °	93.00		1060771
DN 80 °	126.00		1060772
DN 100	244.00		1060773
DN 125	415.00		1060774
DN 150	540.00		1060775
DN 200	1,010.00		1060776
DN 250	1,450.00		1060777
DN 300	2,400.00		1060778

Application:

Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

The metering stations DN 15 and DN 20 are suitable for use with "Ofix" compression fittings, item no. 10271..., page 3.45 and 1028155, page 1.136.

Measuring method:

Determination of the flow rate by measuring the differential pressure via the metering station. Modification of the flow rates irrespective of the presetting values can be read off directly with the help of the measuring gauges "OV-DMC 3"/"OV-DMC 2"/"OV-DMPC".

Measuring gauges: page 3.90 to 3.92

Description:

Metering stations made of brass resistant to dezincification.
Max. operating pressure: p_s 25 bar (PN 25)
Operating temperature t_s : -20 °C up to +150 °C

The metering stations made of brass resistant to dezincification (DZR) can be combined with any valves with female thread according to EN 10226, e. g.

"Hydrocontrol ATR"

item no.. 10675..

"Hycococon ATR"

item no. 10673..

Gate valves

item no.. 10400/30..

Oblique pattern globe valves

item no.. 10502/03.. and 10520/21..

"Aquastrom" valves

item no. 420....

Double regulating and commissioning valves "Hydrocontrol MTR/MPR/MFC" with integrated metering station: pages 3.32 and 3.33

Description:

Metering stations for installation between flanges.

Max. operating pressure p_s : 16 bar/ 25 bar (PN 16/ PN 25)

Operating temperature t_s : -10 °C up to +150 °C (1060771 - 78: t_s : -10 °C up to +120 °C)

The metering stations for installation between flanges can be combined with any flanged valves according to DIN EN 1092, e. g.

"Hydrocontrol VFR" (PN 16)

item no. 10626..

"Hydrocontrol VFC" (PN 16)

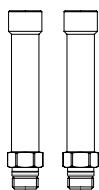
item no. 10623..

"Hydrocontrol VFN" (PN 25)

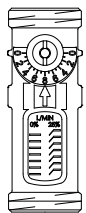
item no.: 10624..

Larger sizes on demand.

°Metering stations DN 65 and DN 80 are also suitable for flanges PN 25.



Article	Packing unit	Article-No.	Hint
Pressure test point extension			For wafer type metering stations made of cast iron item no. 1060771-78.
L = 80 mm (2 extensions)	(50)	1688291*	



3.f "Hycoflow" Double regulating and commissioning valves with flow display

Content

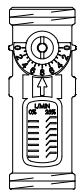
"Hycoflow VTB"	3.50
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Article	Control-range	kvs	Packing unit	Article-No.	Hint
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"Hycoflow VTB"

Double regulating and commissioning valve with flow display PN 10

both ports male thread, flat sealing



DN 20	4 - 17 l/min	3.00	(10)	1060906
DN 25	10 - 40 l/min	8.30	(10)	1060908
DN 32	20 - 70 l/min	13.70	(5)	1060910

Inlet port: collar nut, outlet port: male thread



DN 25	5 - 40 l/min	5.50		1060925
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Application:

Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Measuring method:

Direct reading of the set volume flow.

Function:

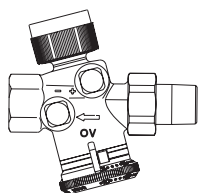
Double regulating and commissioning valves with isolating facility and flow display. They facilitate the hydronic balancing of circuits or parts of the system and can be installed in the supply as well as in the return pipe either horizontally or vertically.

Description:

Max. operating pressure p_s : 10 bar (PN10)
Operating temperature t_s : up to 100 °C

Thread:

DN 20: G ¾
DN 25: G 1
DN 32: G 1¼



3.g "Cocon" Regulating valves

Content

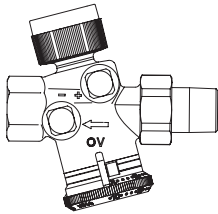
"Cocon QTZ" Pressure independent control valves PN 16	3.52
"Cocon QTR" Pressure independent control valves PN 25 / PN 16	3.54
"Cocon QFC" Pressure independent control valves PN 16	3.54
"Cocon QFC" Pressure independent control valves PN 25	3.55
"Cocon QGC" Pressure independent control valves PN 16	3.55
Accessories for "Cocon QTZ" PN 25 and "Cocon 2TZ"	3.56
Accessories for "Cocon QTZ" PN 16 and "Cocon QTR"	3.56
Accessories for "Cocon QTR" and "Cocon QFC"	3.57
Tailpipe sets	3.58
"Cocon 2TZ" Regulating valves PN 10	3.59
Measuring devices for "Cocon 2TZ" regulating valves	3.59
„OV-Flex HC“ Flexible hoses	3.60
Accessories	3.60

Article	Control range	Packing unit	Article-No.	Hint
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"Cocon QTZ" Pressure independent control valves PN 16 (flow control, threaded connection, brass resistant to dezincification)

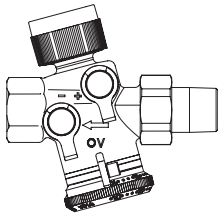
connection thread M 30 x 1.5
both ports with connections for "classic" measuring technique (closed with blind plugs)

Inlet port: coupling, outlet port: female thread



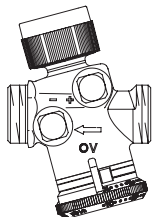
DN 15	30 - 210 l/h	(10)	1145504 ^o
DN 15	90 - 450 l/h	(10)	1145604 ^o
DN 15	150 - 1050 l/h	(10)	1145704 ^o
DN 20	150 - 1050 l/h	(10)	1145506 ^o
DN 20	180 - 1300 l/h	(10)	1145606 ^o
DN 25	300 - 2000 l/h	(5)	1145608 ^o
DN 32	600 - 3600 l/h	(5)	1145610 ^o

with pressure test points "classic" measuring technique
Inlet port: coupling, outlet port: female thread



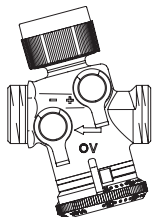
DN 15	30 - 210 l/h	(10)	1146004 ^o
DN 15	150 - 1050 l/h	(10)	1146204 ^o
DN 15	90 - 450 l/h	(10)	1146104 ^o
DN 20	150 - 1050 l/h	(10)	1146006 ^o
DN 20	180 - 1300 l/h	(10)	1146106 ^o
DN 25	300 - 2000 l/h	(5)	1146108 ^o
DN 32	600 - 3600 l/h	(5)	1146110 ^o

both ports with connections for "classic" measuring technique (closed with blind plugs)
both ports male thread



DN 10	30 - 210 l/h	(10)	1145563 ^o
DN 10	90 - 450 l/h	(10)	1145663 ^o
DN 15	30 - 210 l/h	(10)	1145564 ^o
DN 15	90 - 450 l/h	(10)	1145664 ^o
DN 15	150 - 1050 l/h	(10)	1145764 ^o
DN 20	150 - 1050 l/h	(10)	1145566 ^o
DN 20	180 - 1300 l/h	(10)	1145666 ^o
DN 25	300 - 2000 l/h	(5)	1145668 ^o
DN 32	600 - 3600 l/h	(5)	1145670 ^o

with pressure test points "classic" measuring technique
both ports male thread



DN 10	30 - 210 l/h	(10)	1146063 ^o
DN 10	90 - 450 l/h	(10)	1146163 ^o
DN 15	30 - 210 l/h	(10)	1146064 ^o
DN 15	90 - 450 l/h	(10)	1146164 ^o
DN 15	150 - 1050 l/h	(10)	1146264 ^o
DN 20	150 - 1050 l/h	(10)	1146066 ^o
DN 20	180 - 1300 l/h	(10)	1146166 ^o
DN 25	300 - 2000 l/h	(5)	1146168 ^o
DN 32	600 - 3600 l/h	(5)	1146170 ^o

Application:

Central heating and cooling systems (like fan convectors (fan coil units), chilled ceiling modules, induction air systems, cooling and heating zones) with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Max. operating pressure p_s : 16 bar (PN 16), 232 psi
Operating temperature t_s : -10 °C up to +120 °C

Function:

Oventrop pressure independent control valves "Cocon QTZ" control the room temperature with the help of actuators and thermostats. The maximum flow is set to the required nominal value and is constantly maintained within the necessary proportional band.

All valves DN 15 and DN 20 are suitable for the installation with copper pipes.

Model one port coupling, one port female thread:

Compression fittings page 1.136, reinforcing sleeves page 1.139.

Model both ports male threaded:

DN 10: G 1/2 male threaded connection, flat sealing

DN 15: G 3/4 male threaded connection for compression fittings "Ofix", pages 1.136, 1.137 and 1.139.

With insert item no. 1661100 (page 1.121) suitable for flat sealing tailpipes.

DN 20: G 1 male threaded connection for compression fittings, page 9.31.

With insert item no. 1650793 (page 3.57) suitable for flat sealing tailpipes.

DN 25: G 1 1/4 male threaded connection, flat sealing

DN 32: G 1 3/4 male threaded connection, flat sealing

Award:



The Chicago Athenaeum:
Museum of Architecture and Design
GOOD DESIGN Award



Nominated for Design Award
of the Federal Republic
of Germany

For further information see "Technical information":



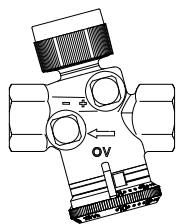
Tailpipe sets: Page 3.56

Flexible hoses: Page 3.60

"Unofix" Refurbishment of one pipe heating systems Page 1.96

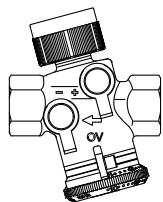
Combination possibilities of valves and actuators: Page 3.08

Article	Control range	Packing unit	Article-No.	Hint
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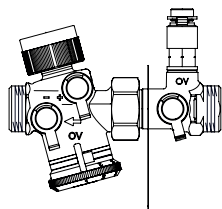
both ports with connections for "classic" measuring technique
(closed with blind plugs)
both ports female thread

DN 15	30 - 210 l/h	(10)	1147504°
DN 15	90 - 450 l/h	(10)	1147604°
DN 20	150 - 1050 l/h	(10)	1147506°
DN 15	150 - 1050 l/h	(10)	1147704°
DN 20	180 - 1300 l/h	(10)	1147606°
DN 25	300 - 2000 l/h	(5)	1147608°
DN 32	600 - 3600 l/h	(5)	1147610°




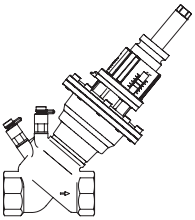
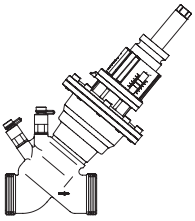
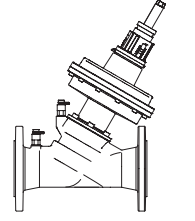
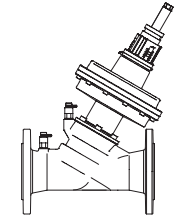
with pressure test points "classic" measuring technique
both ports female thread

DN 15	30 - 210 l/h	(10)	1148504°
DN 15	90 - 450 l/h	(10)	1148604°
DN 15	150 - 1050 l/h	(10)	1148704°
DN 20	150 - 1050 l/h	(10)	1148506°
DN 20	180 - 1300 l/h	(10)	1148606°
DN 25	300 - 2000 l/h	(5)	1148608°
DN 32	600 - 3600 l/h	(5)	1148610°

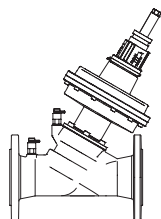


with mounted metering station
and pressure test points "classic" measuring technique
both ports male thread

DN 15	30 - 210 l/h	(10)	1144564°
DN 15	90 - 450 l/h	(10)	1144664°
DN 15	150 - 1050 l/h	(10)	1144764°
DN 20	150 - 1050 l/h	(10)	1144566°
DN 20	180 - 1300 l/h	(10)	1144666°

Article	Control range	Article-No.	Hint
<p>"Cocon QTR" Pressure independent control valves PN 25 / PN 16 (flow control, threaded connection, bronze) "classic" measuring technique</p>			
<p>both ports female thread according to EN 10226, PN 25</p>			
DN 40	1.5 - 7.5 m³/h	1146112	<p>Application: Central heating and cooling systems (like fan convectors (fan coil units), chilled ceiling modules, induction air systems, cooling and heating zones) with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).</p> <p>Max operating pressure p_s : 16 bar (PN 16), 232 psi or 25 bar (PN 25), 362.5 psi Operating temperature t_s: -10 °C up to +120 °C Male thread: DN 40: Connection G 1¼, flat sealing DN 50: Connection G 2¾, flat sealing</p> <p>Function: Oventrop pressure independent control valves "Cocon QTR/QFC" control the flow rate with the help of actuators. The maximum flow is set to the required nominal value and is constantly maintained within the necessary proportional band.</p> <p>Description "Cocon QTR": Body made of bronze.</p> <p>Description "Cocon QFC" (11461.., 16761..): Body made of cast iron (EN-GJL-250 DIN EN 1561)</p> <p>Description "Cocon QFC (11466..): Body made of nodular cast iron (EN-GJS-500 DIN EN 1563), DN 40 and DN 50 made of cast iron (EN-GJL-250 DIN EN 1561)</p> <p>Actuators: page 3.87</p> <p>For further information see "Technical information":</p> 
DN 50	2.5 - 10.0 m³/h	1146116°	
			
<p>both ports male thread, PN 16</p>			
DN 40	1.5 - 7.5 m³/h	1146172	
DN 50	2.5 - 10.0 m³/h	1146174	
			
<p>"Cocon QFC" Pressure independent control valves PN 16 (flow control, flanged connection, cast iron) "classic" measuring technique</p>			
<p>both ports flanged according to EN 1092-2</p>			
DN 40	1.5 - 7.5 m³/h	1146149	
DN 50	2.0 - 8.0 m³/h	1146150	
DN 65	5.0 - 20.0 m³/h	1146151	
DN 80	7.5 - 30.0 m³/h	1146152	
DN 100	12.5 - 50.0 m³/h	1146153	
DN 125	27.0 - 108.0 m³/h	1146154	
DN 150	36.0 - 150.0 m³/h	1146155	
DN 200	55.0 - 190.0 m³/h	1146156	
			
<p>both ports flanged with hole circle according to ANSI</p>			
DN 40	1.5 - 7.5 m³/h	1676149*	
DN 50	2.0 - 8.0 m³/h	1676150*	
DN 65	5.0 - 20.0 m³/h	1676151*	
DN 80	7.5 - 30.0 m³/h	1676152*	
DN 100	12.5 - 50.0 m³/h	1676153*	
DN 125	27.0 - 108.0 m³/h	1676154*	
DN 150	36.0 - 150.0 m³/h	1676155*	
DN 200	55.0 - 190.0 m³/h	1676156*	
			

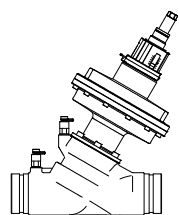
Article	Control range	Article-No.	Hint
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"Cocon QFC" Pressure independent control valves PN 25
 (flow control, flanged connection, cast iron)
 "classic" measuring technique

both ports flanged according to DIN EN 1092-2

DN 40	1.5 - 7.5 m ³ /h	1146649
DN 50	2.0 - 8.0 m ³ /h	1146650
DN 65	5.0 - 20.0 m ³ /h	1146651
DN 80	7.5 - 30.0 m ³ /h	1146652
DN 100	12.5 - 50.0 m ³ /h	1146653
DN 125	27.0 - 108.0 m ³ /h	1146654
DN 150	36.0 - 150.0 m ³ /h	1146655
DN 200	55.0 - 190.0 m ³ /h	1146656



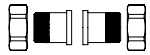
"Cocon QGC" Pressure independent control valves PN 16
 (flow control, flanged connection, cast iron)
 "classic" measuring technique

both ports groove connection for couplings

DN 65	5.0 - 20.0 m ³ /h	1676251*
DN 80	7.5 - 30.0 m ³ /h	1676252*
DN 100	12.5 - 50.0 m ³ /h	1676253*

Article	Packing unit	Article-No.	Hint
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Accessories for "Cocon QTZ" PN 25 and "Cocon 2TZ"
Tailpipe sets, flat sealing/tapered sealing,
with collar nut and O-ring

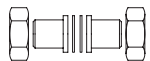


Set = 2 male threaded tailpipes

DN 15 and DN 20 with tapered sealing.

R ½ for valve DN 15	(10)	1140282*
R ¾ for valve DN 20	(10)	1140284

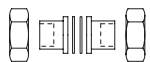
Accessories for "Cocon QTZ" PN 16 and "Cocon QTR"
Tailpipe sets, flat sealing
with collar nut and ring gasket



Set = 2 weldable tailpipes

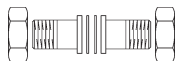
DN 15 and DN 20:
 Supplied with insert (change-over from tapered to flat sealing).

for valve DN 10	(10)	1140591
for valve DN 15	(10)	1140592
for valve DN 20	(10)	1140593
for valve DN 25	(10)	1140594
for valve DN 32	(5)	1140595
for valve DN 40	(5)	1140596
for valve DN 50	(5)	1140597



Set = 2 solder tailpipes

18 mm for valve DN 15	(10)	1140691
15 mm for valve DN 15	(10)	1140692
18 mm for valve DN 20	(10)	1140693
22 mm for valve DN 20	(10)	1140694
28 mm for valve DN 25	(10)	1140695
35 mm for valve DN 32	(5)	1140696
42 mm for valve DN 40	(5)	1140697
54 mm for valve DN 50	(5)	1140698



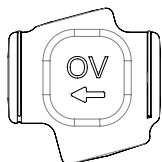
Set = 2 male threaded tailpipes

R ¾ for valve DN 10	(10)	1140791
R ½ for valve DN 15	(10)	1140792
R ¾ for valve DN 20	(10)	1140793
R 1 for valve DN 25	(10)	1140794
R 1¼ for valve DN 32	(5)	1140795
R 1½ for valve DN 40	(5)	1140796
R 2 for valve DN 50	(5)	1140797



Set = 2 female threaded tailpipes

Rp ½ for valve DN 15	(10)	1140892
Rp ¾ for valve DN 20	(10)	1140893
Rp 1 for valve DN 25	(10)	1140894
Rp 1¼ for valve DN 32	(5)	1140895




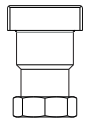
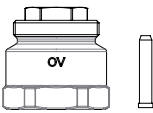
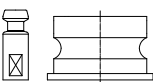
Insulation shells for "Cocon QTZ" PN 16

DN 15 - DN 20	1149104
DN 20	1149106
(model: 180 - 1300 l/h)	
DN 25 - DN 32	1149108

Insulation, consisting of two shells.
 For heating and cooling systems.
 Meet the requirements of the German Energy Saving Directive (EnEV) according to appendix 5, table 1, line 5.
 Operating temperature ts: -10 °C up to +120 °C

Cold insulation:
 Min. fluid temperature: +6 °C
 The insulation shells have to be bonded hermetically (restricted diffusion tightness at low fluid temperature and at high ambient temperature and/or humidity).

Tailpipe sets: Pages 3.58, 3.62
 Flexible hoses: Page 3.60

	Article	Packing unit	Article-No.	Hint
	Insert	(100)	1650793	For "Cocon QTZ" DN 20 with male threaded connection G 1. Suitable for flat sealing tailpipes.
	Adapter for "Cocon QTZ" For the conversion of the rotary movement of the actuator (90°) into a stroke lift required for the valve	(25)	1149095	
	Adapter with stem for "Cocon QTZ", thermostatic valves Extension = 25 mm	(10)	1149190	Is required if the "Cocon QTZ" valves shall be equipped with insulation shells and actuators.
	Accessories for "Cocon QTR" and "Cocon QFC" Adapter set for the adaptation of actuators of other manufacturers to Oventrop "Cocon QTR/QFC" valves Adapter (Siemens) Adapter (Honeywell) Adapter (Johnson Controls) Adapter (Belimo)	(10)	1149011 1149021 1149031 1149041	Actuator types: 1149011: DN 40 - 100 SAX 61.03 DN 65 - 200 SKC 60 1149021: DN 65 - 100 ML 7421 A3004 DN 65 - 100 ML 7420 A6009 DN 125 - 200 ML 7421 B3003 (restricted flow in combination with DN 150/ 200) 1149031: DN 65 - 100 VA 7810-GGA-12 DN 125 - 200 VA 1125-GGA-1 1149041: DN 40 - 200 AV24-MFT

Article	Packing unit	Article-No.	Hint
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Tailpipe sets
with tapered sealing, with O-ring,
for "Cocon 2TZ" and "Cocon QTZ"



Solder tailpipe, 2-fold

12 mm DN 15	(10)	1140181	
15 mm DN 15	(10)	1140182	
18 mm DN 20	(10)	1140183	
22 mm DN 20	(10)	1140184	



Plug-in tailpipe, 2-fold

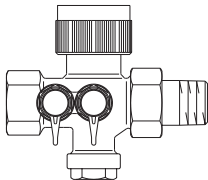
10 mm DN 15	(10)	1140380	
12 mm DN 15	(10)	1140381	
15 mm DN 15	(10)	1140382	
18 mm DN 20	(10)	1140383	
22 mm DN 20	(10)	1140384	

Article	kvs	Packing unit	Article-No.	Hint
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"Cocon 2TZ" Regulating valves PN 10 (two-way valve, threaded connection, brass resistant to dezincification)

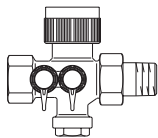
"eco" measuring technique

Components in contact with water are made of brass resistant to dezincification (DZR), both ports with mounted pressure test points and drain valves, with linear flow characteristic line at kvs values 0.45 and 1.0
 connection thread M 30 x 1.5



Inlet port: coupling, outlet port: female thread

DN 15	0.45	(10)	1145004
DN 15	1.00	(10)	1145104
DN 15	1.80	(10)	1145204

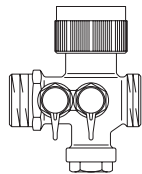


"classic" measuring technique

both ports with mounted pressure test points, with linear flow characteristic line at kvs values 0.45 and 1.0
 connection thread M 30 x 1.5

Inlet port: coupling, outlet port: female thread

DN 15	0.45	(10)	1145074
DN 15	1.00	(10)	1145174
DN 15	1.80	(10)	1145274

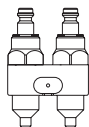


both ports male thread

DN 15	0.45	(10)	1145371
DN 15	1.00	(10)	1145372
DN 15	1.80	(10)	1145373
DN 20	4.50	(10)	1145475

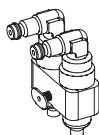
Tailpipe sets: page 3.58

Measuring devices for "Cocon 2TZ" regulating valves with "eco" measuring technique
 for measurement with measuring gauge "OV-DMC 2"



Measuring devices

Straight pattern	(10)	1145099
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Angle pattern	(10)	1145085
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Application:

Central heating and cooling systems (like fan convectors (fan coil units), chilled ceiling modules, induction air systems, cooling and heating zones) with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Max. operating pressure p_s : 10 bar (PN 10)
 Operating temperature t_s : -10 °C up to +120 °C

General information:

DN 15: G 3/4 male threaded connection for compression fittings "Ofix", page 3.45. With insert item no. 1661100 (page 3.62) suitable for flat sealing tailpipes.

DN 20: G 1 male threaded connection for compression fittings, page 9.31.

"Cocon 2TZ":

Oventrop regulating valves "Cocon 2TZ" control the room temperature with the help of actuators and thermostats. Regarding the measuring procedure, the technical information "Cocon 2TZ" has to be observed.

The valves are installed in the return pipe. Presettable, determination of the flow rate by measuring the differential pressure via the integrated metering station.

Modification of the flow rates irrespective of the presetting values can be read off directly with the help of the measuring gauges "OV-DMC 3"/"OV-DMC 2".

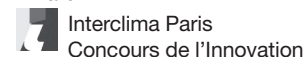
Measuring gauges: page 3.90 to 3.92

Advantages:

- presetting
- with draining, filling and isolating facility
- measuring
- regulating
- exact control of the flow rate/differential pressure via the pressure test points

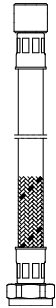


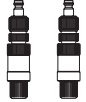

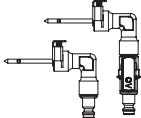

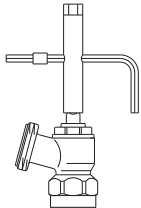
Valve inserts: page 3.19

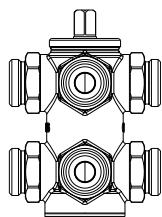
Award:



For further information see "Technical information":



Article	Packing unit	Article-No.	Hint	
	„OV-Flex HC“ Flexible hoses for heating and cooling systems		<p>Diffusion impeding, flexible hose made of EPDM with outer sleeve made of stainless steel wire mesh.</p> <p>Application: Heating and cooling systems (e. g. for the connection of radiant and chilled ceilings) with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or water and glycol mixtures according to VDI 2035/ÖNORM 5195).</p> <p>Max. operating pressure p_s: 10 bar (PN 10) Operating temperature t_s: 0 °C up to 70 °C</p> <p>Tapered sealing connection: Suitable for "Cocon QTZ/2TZ" with G 3/4 male thread.</p> <p>"eco" measuring technique: For draining, venting and filling the installation.</p> <p>For measurement with measuring systems "OV-DMC 3", "OV-DMC 2" and "OV-DMPC".</p>	
	one port G 3/4 collar nut with tapered sealing, one port plug-in fitting for copper pipe according to EN 1057			
	for 12 mm copper pipe	(100)		1140351
	for 15 mm copper pipe	(100)		1140352
	one port G 3/4 collar nut, flat sealing, one port plug-in fitting for copper pipe according to EN 1057			
	for 12 mm copper pipe	(100)	1140551	
	for 15 mm copper pipe	(100)	1140552	
	Accessories			
	Fill and drain tool for valves with "eco" measuring technique		1061791	
	Set = 2 measuring needles for valves with "eco" measuring technique		(25) 1061799	
	Measuring adapter, "classic" measuring technique		(50) 1060298	
	Set 9 = 2 measuring needles for		(50) 1069199	
	"FSA" Filling and isolation device for chilled ceilings		Max. operating pressure p_s : 16 bar (PN 16) Operating temperature t_s : -10 °C up to +120 °C	
DN 15	(10)	1149004		
	Service tool		1090551	








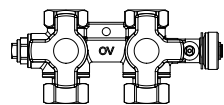
3.h "Optibal W6" Six-way ball valve

Content

Tailpipe sets

3.62

Article	Packing unit	Article-No.	Hint
Tailpipe sets with tapered sealing with O-ring			
		Solder tailpipe, 2-fold	
		12 mm DN 15	(10) 1140181
		15 mm DN 15	(10) 1140182
		18 mm DN 20	(10) 1140183
		22 mm DN 20	(10) 1140184
		Plug-in tailpipe, 2-fold	
		10 mm DN 15	(10) 1140380
		12 mm DN 15	(10) 1140381
		15 mm DN 15	(10) 1140382
		18 mm DN 20	(10) 1140383
		22 mm DN 20	(10) 1140384
Inserts			
		Insert	(100) 1650793
			For "Cocon QTZ" DN 20 with male threaded connection G 1. Suitable for flat sealing tailpipes.
		Insert as set = 2 pieces	
		for cone according to DIN EN 16313 (cone "Euro")	(50) 1661100
			For "Multiflex F", "Multiblock T/TU/TFU/TQ/T-RTL/TQ-RTL" and "Cocon QTZ" DN 15.

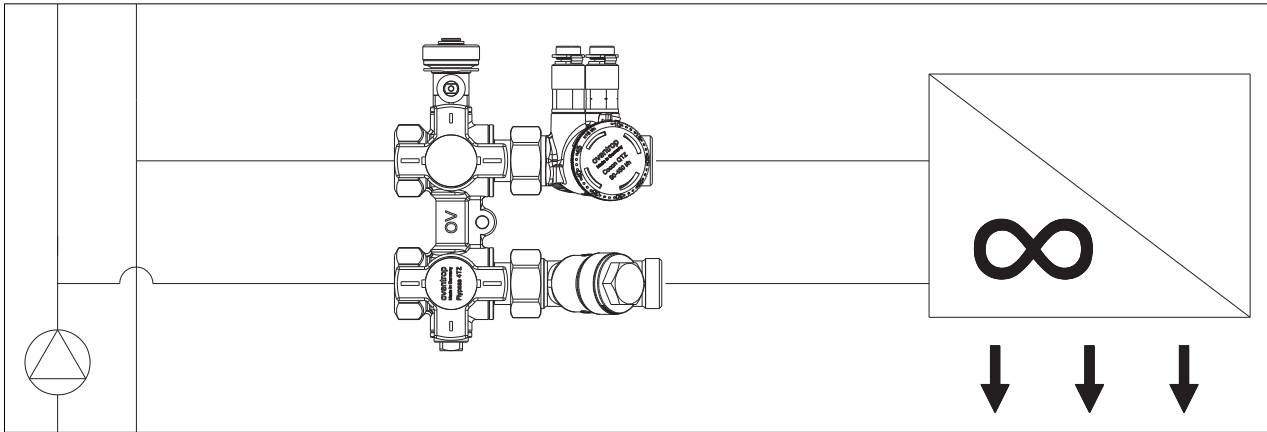


3.i "Flypass" Connection systems, valves and fittings

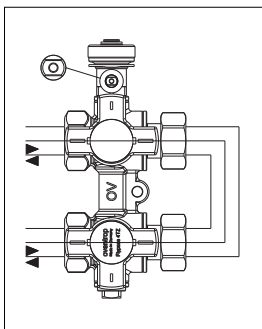
Content

"Flypass" System illustration	3.64
"Flypass" Connection sets	3.65
"Flypass 4TZ" Connection fitting	3.68
Valves for combination with the "Flypass 4TZ"	3.68
Accessories	3.70

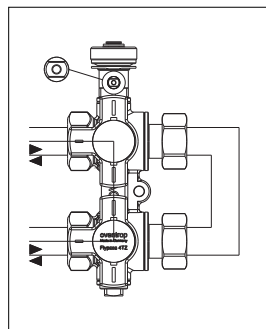
System example with "Flypass set 1":



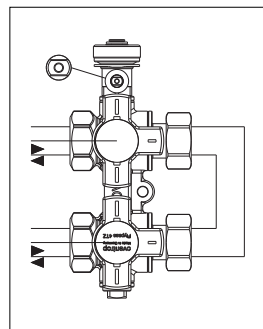
Functions "Flypass 4TZ", connection fitting/installation example:



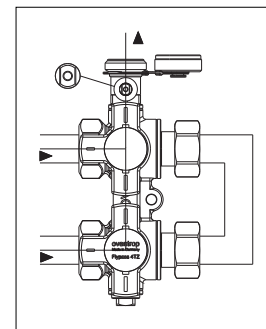
Normal operation



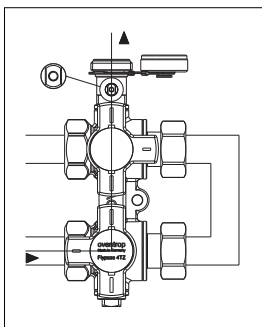
Bypass operation



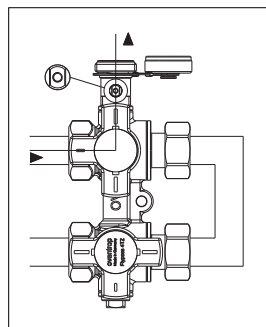
Isolation



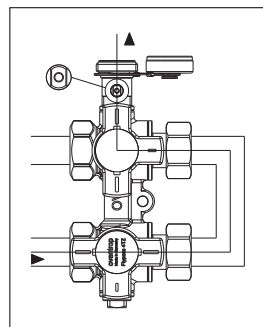
Filling and bleeding the system side



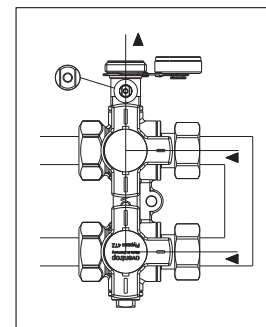
Draining of the system and appliance side and bleeding and flushing the system side



Draining, bleeding and flushing the system side

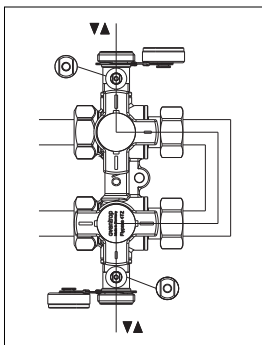


Filling, bleeding and flushing the appliance side (1)

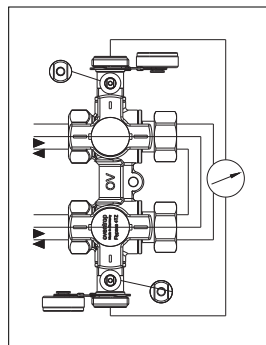


Isolating and draining the appliance side

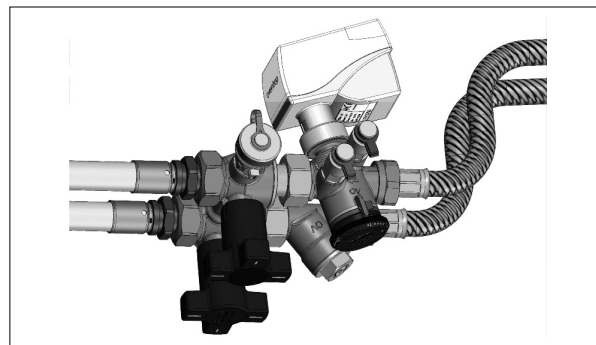
Functions "Flypass 4TZ" with accessories (fill and drain ball valve 1060191)



Re-filling, bleeding and flushing appliance side (1) (2)



Differential pressure measurement (3)

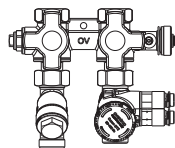


Installation example "Flypass" connection system consisting of: "Flypass 4TZ" and accessories (to be ordered separately)

- (1) If required, open all components on the appliance side completely.
- (2) Accessory fill and drain valve required
- (3) Accessory fill and drain valve as well as measuring system "OV-DMC2" or "OV-DMPC" required

Article Article-No. Hint

"Flypass" Connection sets



"Flypass set 1"

DN 15 **1149450***

consisting of:
1x "Flypass 4TZ" 1149504
1x Strainer 1141004
1x "Cocon QTZ" (30 - 210 l/h) 1146064
1x Insert 1661100 (2 pcs.)

DN 15 **1149550**

consisting of
1x "Flypass 4TZ" 1149504
1x Strainer 1141004
1x "Cocon QTZ" (90 - 450 l/h) 1146164
1x Insert 1661100 (2 pcs.)

DN 15 **1149650***

consisting of:
1x "Flypass 4TZ" 1149504
1x Strainer 1141004
1x "Cocon QTZ" (150 - 1050 l/h) 1146264
1x Insert 1661100 (2 pcs.)

DN 15 **1149553***

consisting of:
1x "Flypass 4 TZ" 1149504
1x Strainer 1141004
1x "Cocon QTZ" (30 - 210 l/h)
with mounted metering station 1144564
1x Female threaded tailpipe set 1140892 (2 pcs.)

DN 20 **1149551**

consisting of:
1x "Flypass 4TZ" 1149506
1x Strainer 1141006
1x "Cocon QTZ" (150 - 1050 l/h) 1146066
2x Insert 1650793 (1 pce.)

DN 20 **1149651***

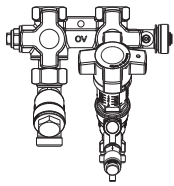
consisting of:
1x "Flypass 4TZ" 1149506
1x Strainer 1141006
1x "Cocon QTZ" (180 - 1300 l/h) 1146166
1x Insert 1650793 (2 pcs.)

DN 20 **1149554***

consisting of:
1x "Flypass 4TZ" 1149506
1x Strainer 1141006
1x "Cocon QTZ" (180 - 1300 l/h)
with mounted metering station 1144666
1x Female threaded tailpipe set 1140893 (2 pcs.)

DN 25 **1149552***

consisting of:
1x "Flypass 4TZ" 1149506
1x Strainer 1141006
1x "Cocon QTZ" (300 - 2000 l/h) 1146168

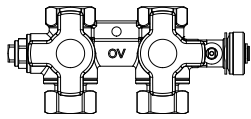


Article	Article-No.	Hint
"Flypass set 2"		
DN 15	1149560	
consisting of:		
1x "Flypass 4TZ"	1149504	
1x Strainer	1141004	
1x "Hydrocontrol VTR"	1060564	
DN 15	1149562*	
consisting of:		
1x "Flypass 4TZ"	1149504	
1x Strainer	1141004	
1x "Hydrocontrol MTR"	1061964	
1x Female threaded tailpipe set	1140892 (2 pcs.)	
DN 15	1149563*	
consisting of:		
1x "Flypass 4TZ"	1149504	
1x Strainer	1141004	
1x "Hydrocontrol MTR"	1061904	
1x Female threaded tailpipe set	1140892 (2 pcs.)	
DN 20	1149561	
consisting of:		
1x "Flypass 4TZ"	1149506	
1x Strainer	1141006	
1x "Hydrocontrol VTR"	1060566	
DN 20	1149564*	
consisting of:		
1x "Flypass 4TZ"	1149506	
1x Strainer	1141006	
1x "Hydrocontrol MTR"	1061906	
1x Female threaded tailpipe set	1140893 (2 pcs.)	

Further connection sets

	Exemplary valve sets:	Components:	Item no.	
			DN 15	DN 20
	<p>"Flypass set 3" consisting of "Flypass" fitting with strainer and double regulating and commissioning valve with flow display "Hycoflow VTB"</p>	<p>1x "Flypass 4TZ" 1x Strainer 1x "Hycoflow VTB" Double regulating and commissioning valve with flow display</p>	<p>1149504 1141004 1060906</p>	<p>1149506 1141006 1060908</p>
	<p>"Flypass set 4" consisting of "Flypass" fitting with strainer and regulating valve "Hycococon ETZ"</p>	<p>1x "Flypass 4TZ" 1x Strainer 1x "Hycococon ETZ" Regulating valve</p>	<p>1149504 1141004 1063964</p>	<p>1149506 1141006 1063966</p>
	<p>"Flypass set 5" consisting of fitting "Flypass" with strainer and double regulating and commissioning valve "Hycococon VTZ"</p>	<p>1x "Flypass 4TZ" 1x Strainer 1x "Hycococon VTZ" Double regulating and commissioning valve</p>	<p>1149504 1141004 1061854</p>	<p>1149506 1141006 1061855</p>
	<p>"Flypass Set 6" consisting of "Flypass" fitting with strainer and double regulating and commissioning valve "Hydrocontrol MTR"</p>	<p>1x "Flypass 4TZ" 1x Strainer 1x "Hydrocontrol MTR" Double regulating and commissioning valve</p>	<p>1149504 1141004 10619..</p>	<p>1149506 1141006 1061906</p>
	<p>"Flypass Set 7" consisting of "Flypass" fitting with double nipple and double regulating and commissioning valve "Hydrocontrol MTR"</p>	<p>1x "Flypass 4TZ" 1x Double nipple 1x "Hydrocontrol MTR" Double regulating and commissioning valve</p>	<p>1149504 1149070 10619..</p>	<p>1149506 1149071 1061906</p>

Article	Control range	kvs	Packing unit	Article-No.	Hint
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"Flypass 4TZ" Connection fitting
PN 16

one port female thread,
one port collar nut
(flat sealing with enclosed ring gasket)

DN 15		22.00		1149504
DN 20		34.00		1149506

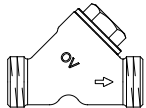
Application:

Central heating and cooling systems (like fan convectors (fan coil units), chilled ceiling modules, induction air systems, cooling and heating zones) with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : -10 °C up to 120 °C
Function:

The Oventrop connection fitting "Flypass 4TZ" is used for the isolation, flushing, draining and bleeding of the supply and return pipe installed in the flow direction in front of the fitting or the succeeding sections of the system. The connection fitting can be converted to bypass operation. The ball positions and thus the flow directions are displayed by the shape of the handle.

Valves for combination with the "Flypass 4TZ"



Strainer PN 25

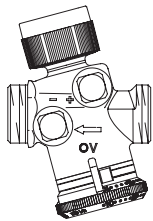
both ports male thread, flat sealing
with double wire basket 250 µm

DN 15	2.70	(10)	1141004
DN 20	4.80	(10)	1141006

On principle, all flat sealing Oventrop valves in corresponding size with male thread $\frac{3}{4}$ (DN 15) or male thread 1 (DN 20) can be combined with the connection fitting "Flypass 4TZ".

The adapter 1149075/76 is required when using female threaded valves.

"Cocon QTZ" Pressure independent control valve PN 16



both ports with connections for "classic" measuring technique
(closed with blind plugs)
both ports male thread

DN 15	30 - 210 l/h	(10)	1145564°
DN 15	90 - 450 l/h	(10)	1145664°
DN 15	150 - 1050 l/h	(10)	1145764°
DN 20	150 - 1050 l/h	(10)	1145566°
DN 20	180 - 1300 l/h	(10)	1145666°

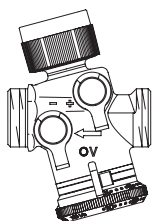
"Cocon QTZ"

DN 15: G $\frac{3}{4}$ male threaded connection for compression fittings "Ofix", pages 1.136, 1.137 and 1.139.

With insert item no. 1661100 (page 3.70) suitable for flat sealing tailpipes.

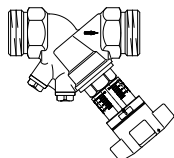
DN 20: G 1 male threaded connection for compression fittings, page 9.31.

With insert item no. 1650793 (page 3.70) suitable for flat sealing tailpipes.



with pressure test points "classic" measuring technique
both ports male thread

DN 15	30 - 210 l/h	(10)	1146064°
DN 15	90 - 450 l/h	(10)	1146164°
DN 15	150 - 1050 l/h	(10)	1146264°
DN 20	150 - 1050 l/h	(10)	1146066°
DN 20	180 - 1300 l/h	(10)	1146166°



"Hydrocontrol VTR"

Bronze double regulating and commissioning valves PN 16
both ports male thread, flat sealing

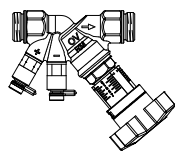
DN 15	3.88	(10)	1060564
DN 20	5.71	(10)	1060566

Spare parts for strainers: Page 5.34

"Unofix" Refurbishment of one pipe heating systems Page 1.96

Accessories: Page 3.42

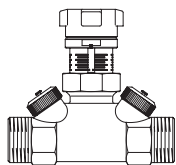
Tailpipe sets:



Article	Control range	kvs	Packing unit	Article-No.	Hint
"Hydrocontrol MTR" with integrated metering station					
"classic" measuring technique					
both ports male thread, flat sealing					
DN 15 LF		0.55	(10)	1061964	
DN 15 MF		1.15	(10)	1061934	
DN 15 HF		2.10	(10)	1061904	
DN 20		3.70	(10)	1061906	

Article	Control-range	kvs	Packing unit	Article-No.	Hint
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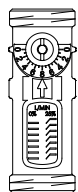
"Hycoccon VTZ"
Double regulating and commissioning valves PN 16



both ports male thread, flat sealing

DN 15		1.70	(10)	1061854
DN 20		2.70	(10)	1061856

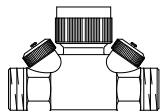
"Hycoflow VTB"
Double regulating and commissioning valves with flow display PN 10



both ports male thread, flat sealing

DN 20	4 - 17 l/min	3.00	(10)	1060906
DN 25	10 - 40 l/min	8.30	(10)	1060908

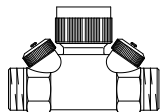
"Hycoccon ETZ" Regulating valves PN 16



both ports male thread, flat sealing

DN 15		0.90	(10)	1063964
DN 20		0.90	(10)	1063966

"Hycoccon HTZ" Regulating valves PN 16



both ports male thread, flat sealing

DN 15		1.70	(10)	1064264
DN 20		2.70	(10)	1064266
DN 20		5.00	(10)	1064267

Accessories



Adapter
one port male thread (valve connection),
one port male thread, flat sealing

DN 15		(10)	1149075
DN 20		(10)	1149076

For the connection of female threaded valves to the connection fitting "Flypass 4TZ". The adapter has to be screwed into the female threaded connection of the valve.



Double nipple
both ports male thread, flat sealing

DN 15		(10)	1149070
DN 20		(10)	1149071

For the direct connection of flat sealing pipes or valves with collar nut to the connection fitting "Flypass 4TZ". Both ports male thread.



Insert (100) **1650793**

For "Cocon QTZ" DN 20 with male threaded connection G 1. Suitable for flat sealing tailpipes.

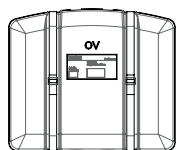


Insert as set = 2 pieces
for cone according to DIN EN 16313 (cone "Euro") (50) **1661100**

For "Multiflex F", "Multiblock T/TU/TFU/TQ/T-RTL/TQ-RTL" and "Cocon QTZ" DN 15.

Accessories: Page 3.42
Tailpipe sets:
Flexible hoses: Page 3.60

Article	Packing unit	Article-No.	Hint
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Insulation shell made of polyurethane rigid foam with polystyrene shell for connection sets "Flypass"

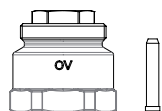
DN 15 - DN 20 (LF)

1149581

Insulation, consisting of two shells. For heating and cooling systems. Meet the requirements of the German Energy Saving Directive (EnEV) according to appendix 5, table 1, line 5. Building material class B2 according to DIN 4102. Operating temperature t_s : -10 °C up to +120 °C

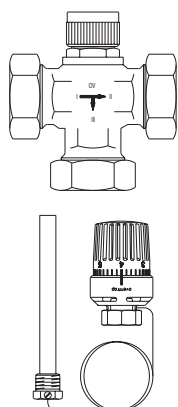
Cold insulation:
Min. fluid temperature: +6 °C
The insulation shells have to be bonded hermetically (restricted diffusion tightness at low fluid temperature and at high ambient temperature and/or humidity).

Suitable for "Flypass set 1" (except for item no. 1149651, 1149552, 1149553, 1149554 and 1149564) and "Flypass sets 3 - 7".



Adapter with stem (10) **1149190**
for "Cocon QTZ", thermostatic valves
Extension = 25 mm

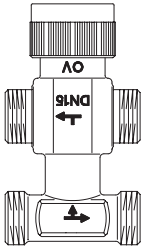
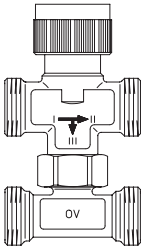
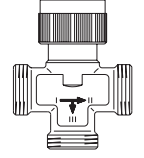
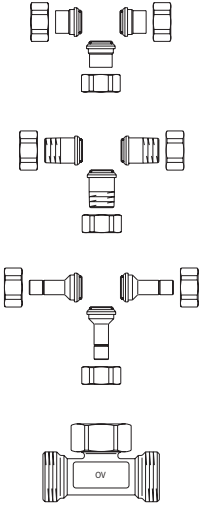
Is required if the "Cocon QTZ" valves shall be equipped with insulation shells and actuators.



3.j "Tri-M", "Tri-D", "Tri-CTR"
Two-way valves, three-way valves, temperature controllers

Content

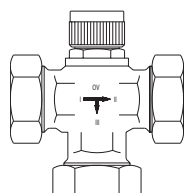
"Tri-M plus TR" Four-port mixing valves PN 10	3.74
"Tri-D plus TB" Three-way diverting valve PN 16	3.74
"Tri-D TB" Three-way diverting valve PN 16	3.74
"Tri-D TR" Three-way diverting valves PN 16	3.75
"Tri-M TR" Three-way mixing valves PN 16	3.75
"Tri-CTR" Three-way diverting and mixing valves PN 16	3.75
Accessories sets for three-way valves "Tri-D TR", "Tri-M TR" and "Tri-CTR"	3.76
Temperature controllers	3.77
"Combi LR" Radiator lockshield valves	3.77
Two-way valve PN 16	3.77
Two-way valve PN 16	3.78

Article	kvs	Packing unit	Article-No.	Hint	
 <p>"Tri-M plus TR" Four-port mixing valves PN 10 with integrated T-piece (mixing valve, threaded connection, bronze)</p> <p>connection thread M 30 x 1.5 G 1/2 male thread, flat sealing</p> <p>DN 15 0.45 (10) 1142751 DN 15 1.00 (10) 1142752 DN 15 1.80 (10) 1142753</p>				<p>Application:</p> <p>Central heating and cooling systems (like fan convectors (fan coil units), chilled ceiling modules, induction air systems, cooling and heating zones) with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).</p> <p>Max. operating pressure p_s: 10 bar (PN 10) Operating temperature t_s: -10 °C up to +120 °C</p>	
	 <p>"Tri-D plus TB" Three-way diverting valve PN 16 with screwed T-piece (diverting valve, threaded connection, brass)</p> <p>tapered sealing connection thread M 30 x 1.5 G 3/4 male thread, tapered connection</p> <p>DN 15 2.50 (10) 1142604°</p>				<p>"Tri-M plus TR":</p> <p>Function: The Oventrop four-port mixing valves "Tri-M plus TR" control the room temperature by changing the volume flow to the terminal unit by use of actuators whilst maintaining an almost constant volume flow within the distribution circuit.</p>
		 <p>"Tri-D TB" Three-way diverting valve PN 16 (diverting valve, threaded connection, brass)</p> <p>tapered sealing connection thread M 30 x 1.5 G 3/4 male thread, tapered connection</p> <p>DN 15 2.50 (10) 1142504</p>			
	 <p>Tailpipe sets (for item no.1142504) with tapered sealing, with O-ring Solder tailpipe 3-fold</p> <p>12 mm (10) 1140191 15 mm (10) 1140192</p> <p>Threaded tailpipe, 3-fold</p> <p>DN 15 (10) 1140292</p> <p>Plug-in tailpipe, 3-fold</p> <p>10 mm (10) 1140390 12 mm (10) 1140391 15 mm (10) 1140392</p> <p>T-piece (10) 1142561</p>				

Article	kvs	Packing unit	Article-No.	Hint
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"Tri-D TR" Three-way diverting valves PN 16 (diverting valve, threaded connection, bronze)

connection thread M 30 x 1.5
with collar nuts, flat sealing



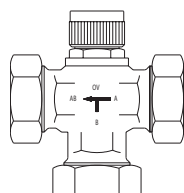
DN 20	4.50		1130206
DN 25	6.50		1130208
DN 40	9.50		1130212

Application:
Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).
Max. operating pressure p_s : 16 bar (PN 16)
Operating temperature t_s : 0 °C up to 120 °C
Diverting or changing-over ("Tri-D TR") or mixing ("Tri-M TR") of volume flows in heating and cooling systems in combination with thermostatic or electric actuators.

Application, for instance for storage cylinder loading function or heating installations with two heat generators, for instance in solar plants or heat pump systems (bivalent heating systems).

"Tri-M TR" Three-way mixing valves PN 16 (mixing valve, threaded connection, bronze)

connection thread M 30 x 1.5
with collar nuts, flat sealing



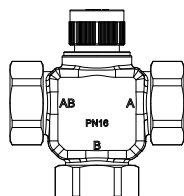
DN 20	4.50		1131706°
DN 25	6.50		1131708°
DN 40	9.50		1131712°

Male thread:
DN 20: G 1
DN 25: G 1¼
DN 40: G 2

The valves can be used in combination with Oventrop temperature controllers or actuators. For further information see "Technical information":

"Tri-CTR" Three-way diverting and mixing valves PN 16 (three-way valve, threaded connection, bronze)

connection thread M 30 x 1.5
with collar nuts, flat sealing



DN 15	(10)	1131204
DN 20	(10)	1131206
DN 25	(10)	1131208
DN 32	(5)	1131210
DN 40	(5)	1131212
DN 50	(5)	1131216

"Tri-D TR":



"Tri-M TR":



Item no.	kvs	Δp max.
11302/07/1706	4.5	0.75 bar
11302/07/1708	6.5	0.5 bar
11302/07/1712	9.5	0.2 bar

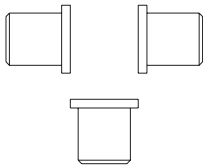
"Tri-CTR":

Function:
For use as diverting valve, the three-way valve has one inlet port (AB) and two outlet ports (A and B). Depending on the position of the valve disc, the direction of flow is diverted from one to the other outlet port.
For use as mixing valve, the three-way valve has two inlet ports (A and B) and one outlet port (AB). Depending on the position of the valve disc, the cold and hot water is mixed.
Operating temperature t_s : -10 °C up to +120 °C

The three-way valves "Tri-CTR" can be used for high differential pressures.

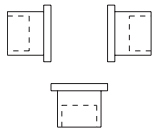
Article	Packing unit	Article-No.	Hint
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Accessories sets for three-way valves "Tri-D TR", "Tri-M TR" and "Tri-CTR"



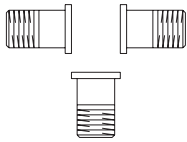
Weldables tailpipe 3-fold

for valve DN 15	(10)	1130091	
for valve DN 20	(10)	1130093	
for valve DN 25	(10)	1130094	
for valve DN 32	(5)	1130095	
for valve DN 40	(5)	1130096	
for valve DN 50	(5)	1130098	



Solder tailpipes 3-fold

15 mm for valve DN 15	(10)	1130191	
15 mm for valve DN 20	(10)	1130192	
18 mm for valve DN 20	(10)	1130193	
22 mm for valve DN 20	(10)	1130194	
28 mm for valve DN 25	(10)	1130195	
35 mm for valve DN 32	(5)	1130199	
35 mm for valve DN 40	(5)	1130196	
42 mm for valve DN 40	(5)	1130197	
54 mm for valve DN 50	(5)	1130198	



Threaded tailpipes 3-fold

R ½ for valve DN 15	(10)	1130291	
R ½ for valve DN 20	(10)	1130292	
R ¾ for valve DN 20	(10)	1130293	
R 1 for valve DN 25	(10)	1130294	
R 1¼ for valve DN 32	(5)	1130299	
R 1¼ for valve DN 40	(5)	1130295	
R 1½ for valve DN 40	(5)	1130296	
R 2 for valve DN 50	(5)	1130298	

Article	kv s	Packing unit	Article-No.	Hint
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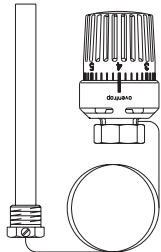
Temperature controllers

connection thread M 30 x 1.5

Temperature controller with immersion sensor

Immersion pocket G 1/2 connection

Control range Capillary length



20 - 50 °C	2 m	1140561
40 - 70 °C	2 m	1140562
50 - 80 °C	2 m	1140563
70 - 100 °C	2 m	1140564
20 - 50 °C	5 m	1140571
40 - 70 °C	5 m	1140572
70 - 100 °C	5 m	1140574
Immersion pocket only		1141091

Application:

Water, max. sensor temperature 30 K above the set value.

For industrial installations, water heaters, air heaters, hot cabinets, dish-washers, surface heating systems or similar.

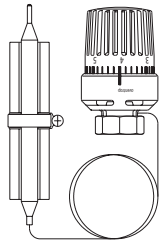
The control range can be limited or locked.

For further information see

"Technical information":



Temperature controller with contact sensor and heat transfer unit



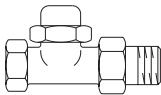
Control range Capillary length

20 - 50 °C	2 m	1142861
30 - 60 °C	2 m	1142862
40 - 70 °C	2 m	1142863
50 - 80 °C	2 m	1142864

"Combi LR" Radiator lockshield valves

Presetting, isolating

brass, nickel plated

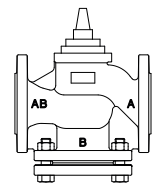


Straight pattern

10 DN	1.80	(25)	1027662
15 DN	1.80	(25)	1027664
20 DN	2.40	(10)	1027666
25 DN	3.20	(10)	1027668

Acts as throttling valve in combination with the temperature controller to limit the flow temperature of surface heating installations.

Selection of valves:

up to 85 m² DN 15 straight DN 20 "Combi LR"up to 120 m² DN 20 straight DN 25 "Combi LR"**Two-way valve PN 16****(can also be used as three-way valve)**

Flanged connections AB, A and B according to DIN EN 1092-2

DN 15	1.00	1130875
DN 15	1.60	1130865
DN 15	2.50	1130845
DN 20	4.00	1130866
DN 20	6.30	1130846
DN 25	10.00	1130847
DN 32	16.00	1130848
DN 40	25.00	1130849
DN 50	35.00	1130850
DN 65	63.00	1130851
DN 80	100.00	1130852
DN 100	160.00	1130853
DN 125	220.00	1130854
DN 150	320.00	1130855

Application:

Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Description:

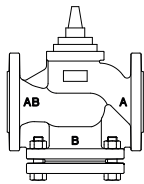
Max. operating pressure p_s: 16 bar (PN 16)Operating temperature t_s: 0 °C up to 130 °C

Body made of cast iron, disc made of brass and stem made of stainless steel.

DN 15 up to DN 50 metal to metal seal between disc and seat.

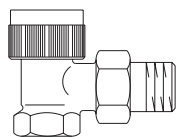
DN 65 up to DN 150 soft sealing with EPDM seal between disc and seat.

The central nipple is closed with a cap. The valve can be used as three-way valve after removal of the cap.



Article	kvs	Article-No.	Hint
Two-way valve PN 16			Application:
Flanged connections AB and A with hole circle according to ANSI*			Central heating and cooling systems with closed circuits, for operation with non-aggressive, harmless fluids (e.g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).
DN 65	63.00	1670851	Description: Max. operating pressure ps: 16 bar (PN 16) Operating temperature ts: 0 °C up to 130 °C Body made of cast iron, disc made of brass and stem made of stainless steel. DN 15 up to DN 50 metal to metal seal between disc and seat. DN 65 up to DN 150 soft sealing with EPDM seal between disc and seat. The central nipple is closed with a blind flange (flanged connection according to DIN).
DN 80	100.00	1670852	
DN 100	160.00	1670853	
DN 125	220.00	1670854	
DN 150	320.00	1670855	

*US-American standard.



3.k "KTB" Thermostatic valves for cooling systems

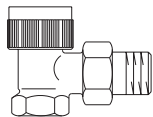
Content

Thermostatic valves "KTB"	3.80
Thermostats for thermostatic valves "KTB"	3.80

Article	kv at 1K P-dev.	kv at 2K P-dev.	kvs	Packing unit	Article-No.	Hint
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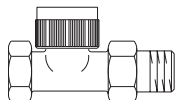
Thermostatic valves "KTB"
(cooling, threaded connection, brass)
with reversed closing function

Angle pattern valve



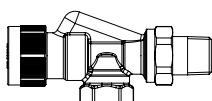
DN 15	0.25	0.50	1.00	(25)	1141704
DN 20	0.25	0.50	1.00	(25)	1141706
DN 25	0.25	0.50	1.00	(10)	1141708

Straight pattern valve



DN 15	0.25	0.50	1.00	(25)	1141804
DN 20	0.25	0.50	1.00	(25)	1141806
DN 25	0.25	0.50	1.00	(10)	1141808

Reversed angle pattern valve



DN 15	0.25	0.50	1.00	(25)	1141904
DN 20	0.25	0.50	1.00	(25)	1141906

Thermostatic valves "KTB"
Valve inserts (100) **1147169**



Valves for thermostats
brass, nickel plated
connection thread M 30 x 1.5

Application:
Cooling systems (like fan convectors (fan coil units), chilled ceiling modules, induction air systems, cooling zones) with closed circuits, for operation with non-aggressive, harmless fluids (e. g. water or suitable water and glycol mixtures according to VDI 2035/ÖNORM 5195).

Max. operating pressure p_g : 10 bar PN 10
Max. differential pressure: 0.5 bar
Operating temperature t_s : -20 °C up to +120 °C

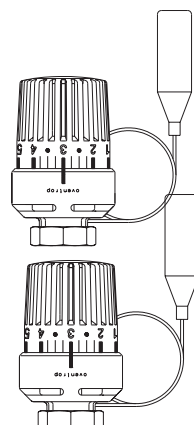
Valve opens with the temperature at the sensor rising.

Marking of the glands of the valve inserts: "K".
The valves can be used in combination with the thermostats "Uni XH", "Uni LH", "vindo TH" and "Uni SH", page 1.08.

For further information see "Technical information":



Thermostats for thermostatic valves "KTB"
Temperature range 7 - 28 °C
Thermostat "Uni LH"
connection thread M 30 x 1.5
Thermostat with remote sensor
white



white,
with remote sensor

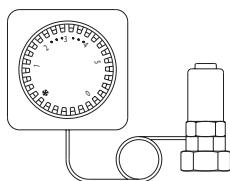
capillary 2 m long	1011665
capillary 5 m long	(75) 1011666
capillary 10 m long	(75) 1011667

with '0' setting

capillary 2 m long	(75) 1011682
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without '0' setting

Thermostat with remote control "Uni FH"
white



capillary 2 m long	1012295
capillary 5 m long	1012296
capillary 10 m long	1012297

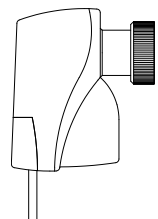
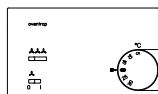
with '0' setting

white,
with additional remote sensor

capillary 2 m long	1012395
capillary 5 m long	1012396

with '0' setting
For further information see "Technical information":

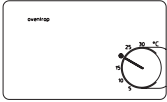

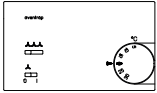
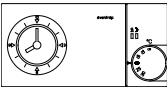
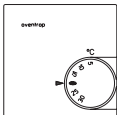





3.I Room thermostats, actuators

Content

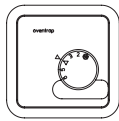
Room thermostats	3.82
"Sensor GA FD" Dew point control	3.84
"Aktor T" Electrothermal actuators	3.85
"Aktor M" Electromotive actuators	3.86
"Aktor M ST EIB" Electromotive actuators	3.88
"Aktor M ST LON®" Electromotive actuators	3.88
"Aktor MH CON B" (ENOCEAN)	3.88

Article	Packing unit	Article-No.	Hint
Room thermostats			
Room thermostat - surface mounting (heating and cooling)			
Heating 0 - 10 V control Cooling 0 - 10 V control			
	24 V	(25) 1152151	The room thermostat is used for individual room temperature control in combination with the electrothermal actuator (0- 10 V) "Aktor T ST L NC", item no. 1012953, page 1.27, or the electromotive actuator "Aktor M ST L", item no. 1012705/06, page 1.28 (may also be used in three- or four-pipe systems). With one analogue output 0–10 V each for heating and cooling as well as adjustable neutral zone (0.5–7.5 K). Temperature range: 5 °C up to 30 °C For further information see "Technical information":
			
Room thermostat - surface mounting (heating and cooling)			
Heating 0 - 10 V control Cooling 0 - 10 V control with fan drive			
	24 V	(25) 1152153	The room thermostat does not only feature analogue outlets 0-10 V for heating and cooling, but also a 3-stage ventilator switch (24 V - 240 V) for the activation of fan convectors (fan coil units). The room thermostat is used for individual room temperature control in combination with the electrothermal actuator (0-10 V) "Aktor T ST L NC", item no. 1012953, page 1.27 or the electromotive actuator "Aktor M ST L", item no. 1012705/06, page 1.28(may also be used in three- or four-pipe systems). Temperature range: 5 °C up to 30 °C
Room thermostat-clock - surface mounting (heating)			
Heating two point control			
with daily setting			
	230 V	(78) 1152551	The electric room thermostat-clock is required for individual room temperature control of heating systems in combination with the electrothermal actuators (two point) "Aktor T 2P". Output signal pulse-width modulation. Temperature range: 5 °C up to 30 °C
with weekly setting			
	230 V	1152552	Heating: Use electrothermal actuators (two point) "closed with current off". Central temperature setback is carried out according to a timed programme. Limitation of the control range by using the concealed limiting elements.
	24 V	1152554	
Room thermostat - surface mounting (heating)			
Heating two point control			
	230 V	(25) 1152051	The electric thermostat is used for individual room temperature control in combination with the electrothermal actuators (two point) "Aktor T 2P". Temperature range: 5 °C up to 30 °C
	24 V	(25) 1152052	Heating: Use electrothermal actuators (two point) "closed with current off". As for item no. 1152051/52/55/71/72, temperature may be set back by use of an external time switch (item no. 1152551/52 for 230 V, item no. 1152554 for 24 V). Cooling: Use electrothermal actuators (two point) "open with current off".
	230 V	(25) 1152055*	Limitation of the control range of item no. 1152051/52/71/72 by using the concealed limiting elements.

Article	Packing unit	Article-No.	Hint
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Room thermostat - flush mounting (heating)

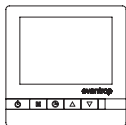
Heating two point control



230 V	(128)	1152071	
24 V	(128)	1152072	

Room thermostat - flush mounting (heating)

with display
Heating two point control



230 V	(40)	1152561	
24 V	(40)	1152562	

With LCD display and adjustable timed programme.

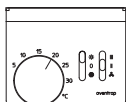
Temperature range: 5 °C up to 35 °C

Operating current range (item no. 1152561): 100 up to 230 V AC

Heating:
Use electrothermal actuators (two point) "closed with current off" (terminal "NC") or "open with current off" (terminal "NO").

Room thermostat - surface mounting (heating or cooling)

Heating two point control
Cooling two point control
with fan drive



230 V		1152351	
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The room thermostat is used for heating or cooling in combination with electrothermal actuators (two point) "Aktor T 2P" and fan convectors (fan coil units).

The room temperature is maintained at the chosen level. With switch for "Heating-Off-Cooling" and fan switch.

Temperature range: 5 °C up to 30 °C

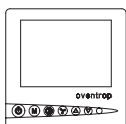
Heating/cooling:
Use electrothermal actuators (two point) "closed with current off".

For further information see "Technical information":



Room thermostat - surface mounting (heating or cooling)

with display
Heating two point control
Cooling two point control
with fan drive



230 V		1152451	
24 V		1152452°	

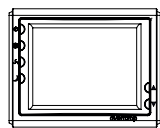
With LCD display and adjustable timed programme.

Temperature range: 5 °C up to 35 °C

Heating or cooling:
Use electrothermal actuators (two point) closed with current "off".

For further information see "Technical information":





Article	Article-No.	Hint
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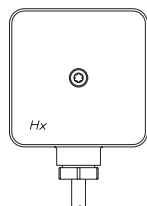
Room thermostat - surface mounting (heating and cooling)
 with display
 Heating two point control
 Cooling 0 - 10 V control
 with fan drive

Electronic room thermostat with digital display for ventilation systems with heating and cooling function.

24 V 1152065

Room thermostat - surface mounting (heating or cooling)
 with display
 Heating or cooling 0 - 10 V control
 with fan drive

24 V 1152064



"Sensor GA FD" Dew point control

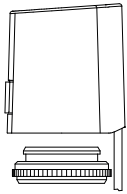
"Sensor GA FD" Dew point control 24 V
 with alternating contact

1141951

Is required in combination with room thermostats to protect chilled ceilings against condensation.
 An actuator interrupting the cooling water flow is for instance activated in combination with the "Regufloor HC".
 Connection to the cooling water supply.
 Connecting cable 1 m.

Article	Packing unit	Article-No.	Hint
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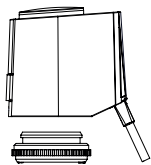
"Aktor T" Electrothermal actuators



"Aktor T 2P" Electrothermal actuators (two point connection thread M 30 x 1.5

"H NC", closed with current "off", 230 V	1012415
"H NO", open with current "off", 230 V	1012425
"L NC", closed with current "off", 24 V	1012416
"L NO", open with current "off", 24 V	1012426
"H NC", closed with current "off", 230 V with mounted auxiliary switch	1012435
"L NC", closed with current "off", 24 V cable 2 m long	1012442
"H NC", closed with current "off", 230 V cable 2 m long	1012452
"H NC", closed with current "off", 230 V cable 5 m long	1012455
"H NC", closed with current "off", 230 V cable 10 long	1012459
"M NC", closed with current "off", 120 V only in approved countries outside the EU	1012420#

Oventrop electrothermal actuators are used for heating, ventilation and air conditioning. The actuators serve to control the room temperature and can be used e. g. with conventional radiators, radiators with integrated distributor, radiant ceiling panels, chilled ceiling systems and induction air systems in combination with two point room thermostats.
Further applications in bivalent heating installations.
Connecting cable 1 m.
With "First-Open" function and stroke index.
Simple plug-in connection with valve adapter.
Actuators can be installed in any position.
Due to their construction, the electrothermal actuators are secured against overvoltage which could occur when switching on neon tubes. A varistor is thus not necessary.



"Aktor T ST" Electrothermal actuator (0-10 V)

Proportional actuator
connection thread M 30 x 1.5

"L NC", closed with current "off", 24 V with automatic recognition of neutral point and valve travel	1012953
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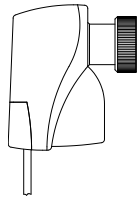
The actuator (0-10 V) can be used in centralised building control systems in combination with the electronic room thermostat, item no. 1152151/1152153, or with a central controller.
Plug-in connecting cable 1 m.
With "First-Open" function and stroke index.
Easy plug-in connection with valve adapter.
Due to their construction, the electrothermal actuators are secured against overvoltage which could occur when switching on neon tubes. A varistor is thus not necessary.

Valve adapter

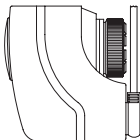


high model connection thread M 30 x 1.5	(5) 1012462
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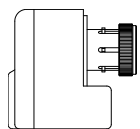
The high model is required when using the actuators, item no. 10124.. and 1012953, in combination with the regulating valves "Hycococon ETZ/HTZ" as well as the fittings "Multiblock T/TU/TFU/TQ" and the design cover (11 mm higher than standard).



Article	Packing unit	Article-No.	Hint
<p>"Aktor M" Electromotive actuators connection thread M 30 x 1.5 with manual setting, adjustable mode of operation</p>			<p>Description electromotive actuators 0 - 10 V: The actuators can be used in centralised building control systems in combination with the electronic room thermostat, item no. 1152151, or with a central controller. Connecting cable 1.5 m. With stroke index.</p> <p>Description electromotive actuators (10127..): Connecting cable 1.5 m. Anti-blocking function: The valve is completely opened and closed every 24 hours.</p>
"ST L", 24 V, modulating proportional actuator, 0-10 V, automatic anti-blocking function and recognition of neutral point, multiple characteristic lines adjustable		1012705	
"ST L", 24 V, modulating proportional actuator, 0-10 V, with position feedback, automatic anti-blocking function and recognition of neutral point, multiple characteristic lines adjustable		1012706	
"3P L", 24 V, three point actuator, without anti-blocking function		1012708	
"3P H", 230 V, three point actuator, without anti-blocking function, mode of operation not adjustable		1012709	
"ST L NC", 24 V modulating proportional actuator, 0 - 10 V, with electric emergency function and automatic recognition of neutral point		1012717	In case of emergency function, the actuator returns to zero position if the power supply is interrupted.

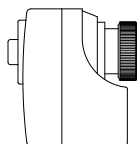


"3P H", 230 V, three point actuator, without anti-blocking function (10) 1012703°



"2P H", 230 V, two point actuator, without anti-blocking function 1012710

"2P L", 24 V, two point actuator, without anti-blocking function 1012711



"2P H NC", 230 V, two point actuator, with emergency function 1012715

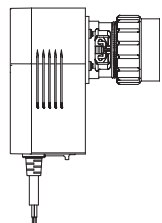
"2P L NC", 24 V, two point actuator, with emergency function 1012716

Short operating time (about 3 sec.).
Connecting cable 1.5 m.

In case of emergency function, the actuator returns to zero position if the power supply is interrupted.
Connecting cable 1.5 m.

Article	Article-No.	Hint
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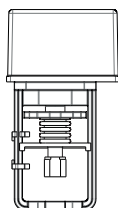
"Aktor M" Electromotive actuators
squeeze connection, 24 V



Steady control with 0-10 V or switching as two or three point control.
Type of characteristic line (linear, equal percentage) adjustable.
With position feedback signal 0-10 V.

- "ST/ 2P/ 3P L", 10 mm piston stroke, with adapter **1158010**
- "ST/ 2P/ 3P L", 10 mm piston stroke, without adapter **1158011**

For "Cocon QTR/QFC" DN 40 and DN 50.
For two-way valves 11308.. and 16708.. DN 15 up to DN 50.



Steady control with 0(2) - 10 V or switching as three point control.
Linear characteristic line.
With position feedback signal 0-10 V.

- "ST/ 3P L", 20 mm piston stroke, with adapter **1158020**

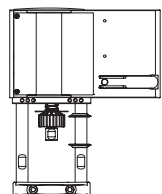
For "Cocon QTR/QFC" DN 40 up to DN 100.

Steady control with 0(2) - 10 V or 0(4) - 20 mA or switching as two or three point control.
Linear characteristic line.
With position feedback signal 0 - 10 V.

- "ST/ 3P L", 20 mm piston stroke, with spring return and adapter **1158021**
- "ST/ 2P/ 3P L", 20 mm piston stroke, with spring return and adapter **1158022**

For "Cocon QTR/QFC" DN 40 up to DN 100.

Valves opening with current "off".
Valves closing with current "off".



Steady control with 0 - 10 V or 4 - 20 mA or switching as two or three point control.
Type of characteristic line (linear, square-law, equal percentage) adjustable.
With position feedback signal 0 - 10 V.

- "ST/ 2P/ 3P L", 40 mm piston stroke, with adapter **1158030**
- "ST/ 2P/ 3P L", 40 mm piston stroke, with spring return and adapter **1158031**
- "ST/ 2P/ 3P L", 40 mm piston stroke, with spring return and adapter **1158032**

For "Cocon QFC" DN 125 up to DN 200 as well as two-way valves, item no. 11308.. and 16708.. DN 65 up to DN 150.

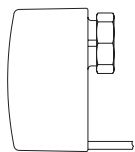
Valves opening with current "off".
Valves closing with current "off".

For further information see "Technical information":



- Connection module 230 V **1158033***

For the connection of the 24 V actuators "Aktor M", item no. 1158030/ 31/ 32, to the 230 V supply voltage.
Module for plug-in connection to the actuator.



"Aktor M ST EIB" Electromotive actuators system "EIB"
with integrated bus coupling
connection thread M 30 x 1.5

"Uni EIB H"

with one binary entry **1156065**
with two binary entries **1156066**

Description EIB/LON:
The electromotive actuator EIB is suitable for a direct connection to the European installation bus control system. The power absorption is extremely low, so that a separate power supply is not needed. Moreover, the actuator is equipped with one or two integrated binary entries to which a window contact may for instance be connected. The connection of the bus and the binary entries is made via a 4- or a 6-core cable (1 m).

"Aktor M ST LON®" Electromotive actuators system "LON®"
with integrated bus coupling
connection thread M 30 x 1.5

"OV LON H"

with one binary entry **1157065**

Product data bank "KNX/EIB" and application programmes "LON" **1156051**

The electromotive actuator LON is suitable for a direct connection to the LonWorks® networks. The power absorption is extremely low, so that a separate power supply is not needed when using the Link-Power-Technology. Moreover, the actuator is equipped with an integrated binary entry to which a window contact may for instance be connected. The connection of the bus and the binary entry is made via a 4-core cable (1 m). 3.5" diskette with Oventrop specific data to be read in the ETS data banks or the LonTalk®-Software.
The data to be read in the ETS data banks or the LonTalk®-Software can be downloaded from the internet under www.oventrop.de (category "Software") free of charge.



"Aktor MH CON B" (ENOCEAN)

connection thread M 30 x 1.5 **1150765***
Electronic actuator
with bi-directional wireless communication,
battery operated

traffic white (RAL 9016)

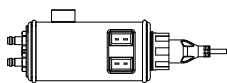
Electronic actuator for room temperature control. The actuator supports the EnOcean profile A5-20-01 and can be connected to communication centres/gateways or room thermostats of other manufacturers.



The actuator is not compatible with the gateway "Synet CR" and the wireless thermostats "R-Tronic".

Only functions in combination with communication centres/gateways and room thermostats using the EEP (EnOcean Equipment Profile) A5-20-01.

System	Oventrop actuators	Item no.	The Oventrop actuators can e.g. be used with the following bus systems:
KNX/EIB	"Uni EIB H" with one binary entry with two binary entries	1156065	- GIRA Instabus KNX/EIB - ABB i-bus KNX - Busch-Jäger installation bus - Jung KNX-System - Merten KNX - Siemens GAMMA instabus - Woertz Building Control Systems - and others
		1156066	
	"Uni EIB D" with one binary entry with two binary entries	1156075	
		1156076	
LON	"OVLONH" with one binary entry "OVLOND" with one binary entry	1157065	
		1157075	
EnOcean (wireless)	"Aktor MH CON B" (ENOCEAN) with wireless module	1150765	- iXERGY (wibutler) - and others

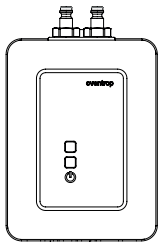


3.m "OV-DMC 3", "OV-DMC 2" and "OV-DMCP" Measuring systems

Content

"OV-DMC 3"	3.90
"OV-DMC 2" Measuring system	3.91
"OV-DMC 2", "OV-DMPC" Accessories	3.91
"OV-DMPC" Measuring system	3.92
"OV-Connect" Differential pressure transmitter	3.93
"classic" measuring technique	3.94
Accessories "eco" measuring technique	3.94

Article	Article-No.	Hint
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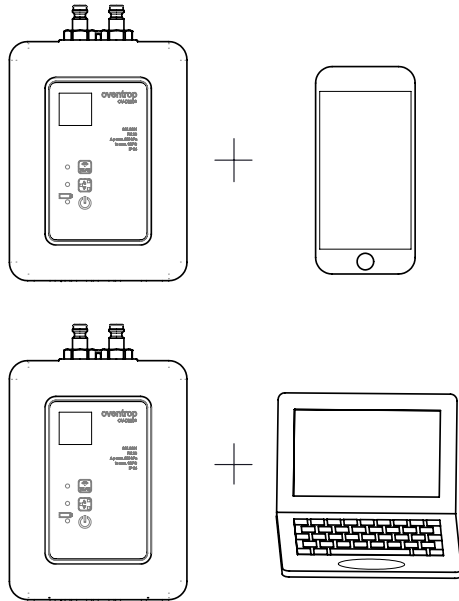
"OV-DMC 3"
for measurement, transfer and determination of pressure, flow, temperature and performance data

without display device	1069278*
with display device	1069279*

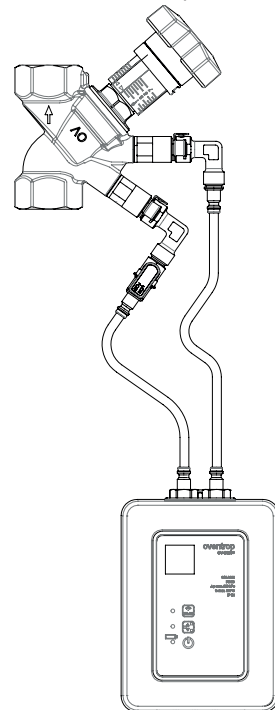
Application:
The measuring system "OV-DMC 3" can be used in combination with Oventrop products with "classic" or "eco" measuring technique (e.g. "Hycocoon", "Hydrocontrol" and "Cocon" valves as well as Oventrop metering stations).

Description "OV-DMC 3":
The measuring system "OV-DMC 3" has especially been designed for the regulation of heating and cooling systems. The interfaces for communication with standard smartphones, tablets and personal computers enable an easy regulation of heating and cooling systems as well as a simple generation of measured records. The data obtained via the calculation programmes "OVplan" and "OVselect" can be accessed retrospectively. Measuring system "OV-DMC 3" for differential pressure measurement and the resulting determination of the flow rate. Calculation of the presetting for a double regulating and commissioning valve is possible after having entered the valve data and the required nominal flow rate. The permanent measurement of differential pressure and flow is possible, too. The measurement of two temperatures (e.g. supply and return) with the help of temperature sensors which can be connected to the "OV-DMC 3" allows for a direct calculation of the heating capacity.

Applications of "OV-DMC 3":



Connection example "OV-DMC 3":



Article	Packing unit	Article-No.	Hint
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"OV-DMC 2" Measuring system

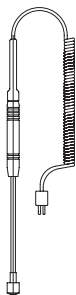


1069177°
 with differential pressure transmitter "DMC-sensor", computer (manual appliance) and extensive accessories for the "classic" and "eco" measuring technique

Application:
 The measuring system "OV-DMC 2" can be used in combination with Oventrop products with "classic" or "eco" measuring technique (e. g. "Hycocoon", "Hydrocontrol" and "Cocon" valves as well as Oventrop metering stations).
Description "OV-DMC 2":
 The measuring system "OV-DMC 2" has especially been designed for the regulation of heating and cooling systems. Measuring system "OV-DMC 2" for differential pressure measurement and the resulting determination of the flow rates. Having entered the valve data and the required nominal flow rate, calculation of the presetting for a double regulating and commissioning valve is possible with the help of the constant pressure, computer or OV Balance method. Furthermore, the system offers the kv-value method, permanent differential pressure measurement, Data Logging and the measurement of temperatures by use of the enclosed temperature sensor. The device works off-line with rechargeable batteries. In order to increase the accuracy of the values obtained during differential pressure measurement, an adjustment to neutral point is carried out automatically.

"OV-DMC 2", "OV-DMPC" Accessories

Contact thermometer **1069197**

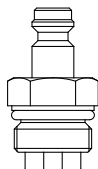


Set 16 = 2 measuring hoses (5) **1069178**
 Set 14 = 2 measuring hoses (5) **1069179**



For "OV-DMC 2" and "OV-DMPC".
 L = 0.5 m.
 L = 2 m, red and blue

Set 17 = 2 measuring nipples G 3/8 with screen (50) **1069186**



For replacement purposes for measuring systems "OV-DMC 2" and "OV-DMPC". Quick-coupling technic.

USB connecting cable (50) **1069299**



Connecting cable for the transmission of data from the "OV-DMC 2" to the USB interface. Supplied with software for the data transmission to the USB stick.

Article

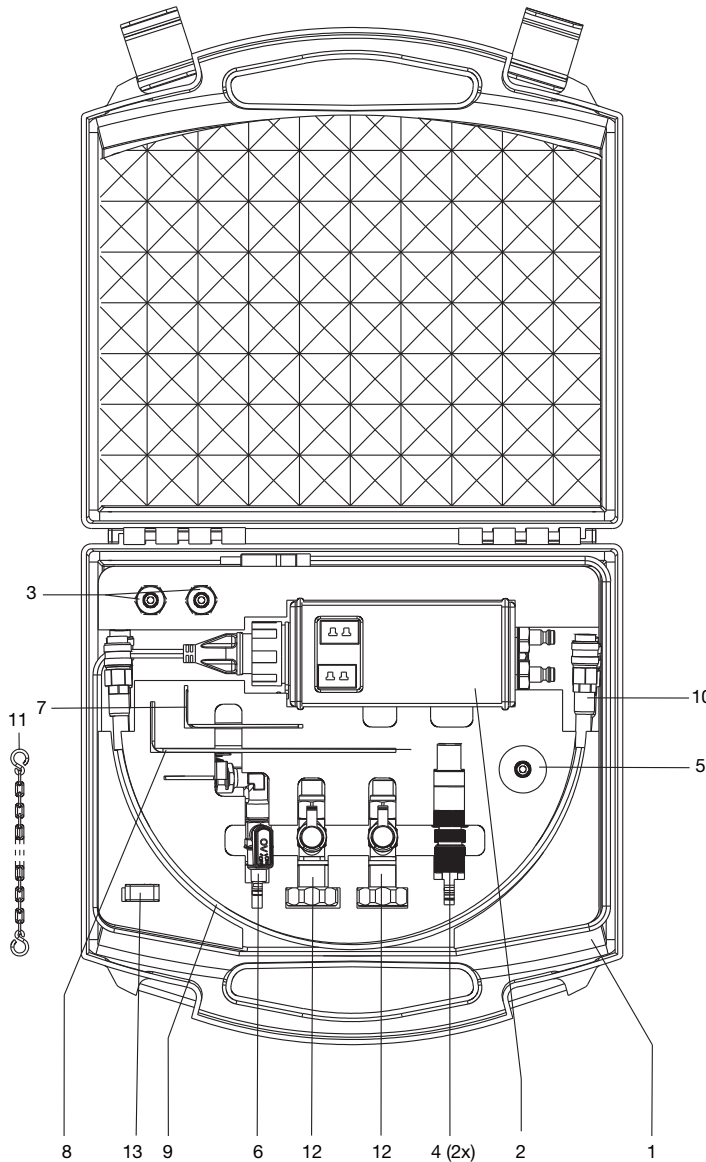
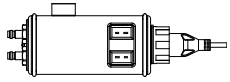
Article-No.

Hint

"OV-DMPC" Measuring system

consisting of differential pressure transmitter "DMPC-sensor" with USB interface and software including extensive accessories for "classic" and "eco" measuring technique

1069277°



Extent of supply:

- 1. Measuring case
- 2. Differential pressure transmitter "DMPC" sensor with USB interface
- 3. 2 connection nipples 106 91 86 for replacement at differential pressure transmitter
- 4. Set of measuring needles 106 17 99 for "eco" measuring technique of double regulating and commissioning valves, e.g. "Hycocoon"
- 5. 2 measuring adapters with connection thread G 3/4 for quick coupling technique
- 6. Set of measuring needles 106 91 99 for "classic" measuring technique of double regulating and commissioning valves, e.g. "Hydrocontrol"
- 7. Allen key 3 mm
- 8. Allen key 4 mm
- 9. Measuring hose blue with quick couplings
- 10. Measuring hose red with quick couplings
- 11. Fixing chain
- 12. 2 measuring adapters 106 02 99 for differential pressure measurement at "Hydromat DTR/DFC"
- 13. USB stick with installation software and operating instructions

Application:

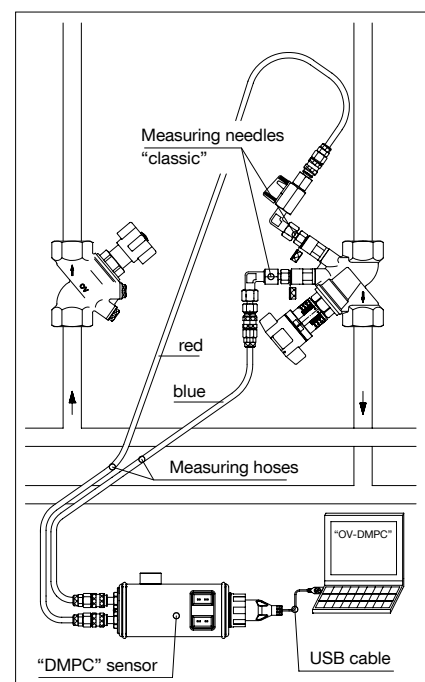
The "OV-DMPC" measuring system can be used in combination with Oventrop products with "classic" or "eco" measuring technique (e. g. "Hycocoon", "Hydrocontrol" and "Cocon" valves as well as Oventrop metering stations).

Description "OV-DMPC":

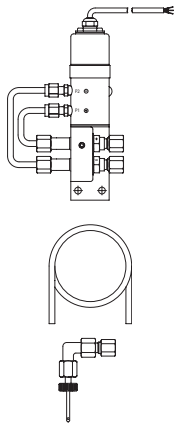
The measuring system "OV-DMPC" is especially designed for the regulation of heating and cooling systems and is equipped with an USB interface for the connection to a commercial computer. Together with the software included, it enables an easy regulating of heating and cooling systems as well as a simple generation of measured records. The data obtained via the calculation programmes "OVplan" and "OVselect" can be accessed retrospectively.

Measuring system "OV-DMPC" for differential pressure measurement and the resulting determination of the flow rate. Calculation of the presetting for a double regulating and commissioning valve is possible after having entered the valve data and the required nominal flow rate. A permanent measurement of differential pressure and flow is possible, too. The measurement of two temperatures (e.g. supply and return) with the help of temperature sensors (not included) which can be connected to the "OV-DMPC" sensor, allows a direct calculation of the heating capacity.

Example: Measurement with measuring technic "classic"



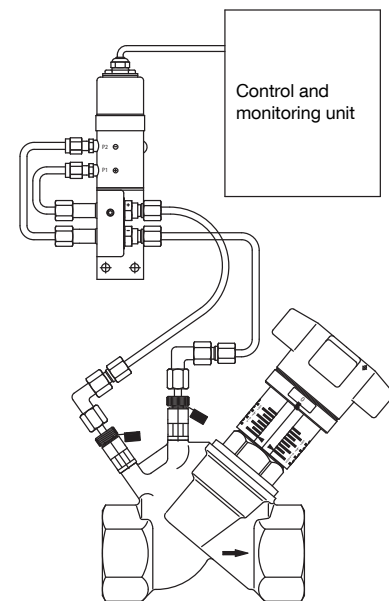
Article	Packing unit	Article-No.	Hint
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"OV-Connect" Differential pressure transmitter

including measuring needles and connecting cable (5) **1069180**

The Oventrop "OV-Connect" differential pressure transmitter permanently controls the differential pressure of Oventrop products with "classic" measuring technique in heating, cooling and potable water systems which are operated with water or water and glycol mixtures. The signals can be processed via an electric control and monitoring unit. The differential pressure of the valve is measured via the measuring needles and 6 mm copper pipes at the pressure test points. Measuring range: 0 - 1000 mbar. During working conditions, the appliance provides an output signal proportional to the measured differential pressure (0 - 10 V). Supply voltage 24 V DC (18 up to 33 V) or 24 VAC ± 15%



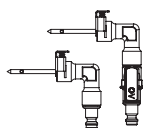
For further information see "Technical information":



Article	Packing unit	Article-No.	Hint
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"classic" measuring technique

Function:
- differential pressure measurement



Set 9 = 2 measuring needles for (50) **1069199**

Accessories "eco" measuring technique



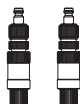
Fill and drain tool for valves with "eco" measuring technique **1061791**

"eco" measuring technique:
For draining, venting and filling the installation.



Measuring adapter (50) **1060297**

Measuring adapter with quick-coupling technic to be screwed onto the fill and drain tool.



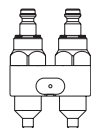
Set = 2 measuring needles for valves with "eco" measuring technique (25) **1061799**

For measurement with measuring systems "OV-DMC 3", "OV-DMC 2" and "OV-DMPC".

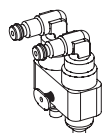


Measuring adapter, "classic" measuring technique (50) **1060298**

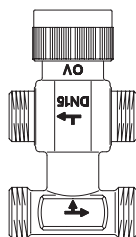
Measuring devices



Straight pattern (10) **1145099**



Angle pattern (10) **1145085**



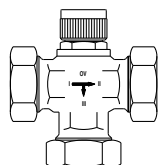
3.n Products for air conditioning and ventilation

Content

Products for air conditioning and ventilation

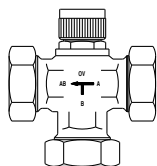
3.96

Devices, such as e.g. fan convectors, chilled ceilings, hot air curtain systems, façade ventilation devices, have to be hydraulically integrated into heating and cooling installations, balanced and regulated. The following Oventrop valves comply with these requirements.



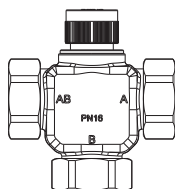
“Tri-D TR” Three-way diverting valves
with connection thread M 30 x 1.5 for thermostats and actuators

Divert and change over of volume flows.
page 3.79



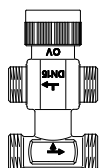
“Tri-M TR” Three-way mixing valves
with connection thread M 30 x 1.5 for thermostats and actuators

Mix and change over of volume flows.
Page 3.79



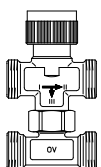
“Tri-CTR” Three-way diverting and mixing valves
with connection thread M 30 x 1.5 for thermostats and actuators

Divert and mix of volume flows.
Page 3.79



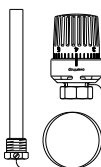
“Tri-M plus TR” Four-way mixing valves
with connection thread M 30 x 1.5 for thermostats and actuators

For the operation in a secondary circuit (e.g. in fan coil units).
Page 3.78



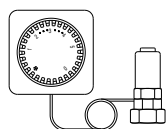
“Tri-D plus TB” Three-way diverting valves with integrated T-piece
with connection thread M 30 x 1.5 for thermostats and actuators

Divert and change over of volume flows (e.g. in fan coil units).
Page 3.78



Temperature controllers
with connection thread M 30 x 1.5

For different temperature control ranges.
Page 3.81



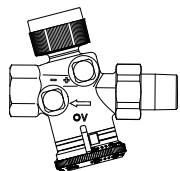
Thermostat with remote control
with connection thread M 30 x 1.5

Page 1.12



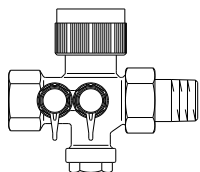
“Hycoflow” Double regulating and commissioning valves with flow display

Allows direct reading of the balanced flow values.
Page 3.50



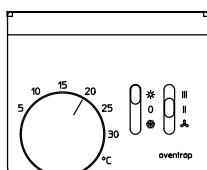
“Cocon QTZ” Pressure independent control valves
with connection thread M 30 x 1.5 for thermostats and actuators

Control of e.g. a room temperature via actuators and thermostats and automatic limitation of the volume flow to a pre-settable maximum value.
Page 3.52



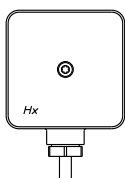
“Cocon 2TZ” Regulating valves

Control of e.g. a room temperature via actuators and thermostats and automatic limitation of the volume flow to a presettable fixed value.
Page 3.61



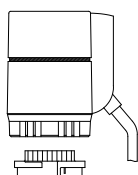
Room thermostat with fan drive

Room temperature control with connection facility for electrothermal actuators (two point).
Page 3.87



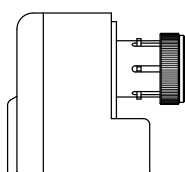
Dew point control

To avoid condensation.
Page 3.88



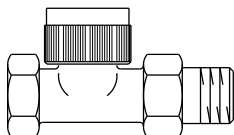
Electrothermal actuators
with connection thread M 30 x 1.5

With two point, three point or 0-10 control.
Page 3.89



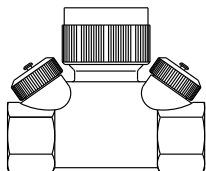
Electromotive actuators
with connection thread M 30 x 1.5

With two point, three point or 0-10 V control for the installation bus control systems EIB and LON.
Page 3.90



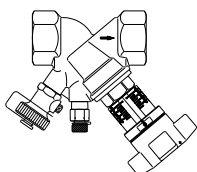
"A" Thermostatic straight pattern valves
with connection thread M 30 x 1.5

With high kvs value.
Page 1.62



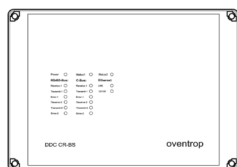
"Hyocon HTZ" Regulating valves
with connection thread M 30 x 1.5

Regulating valve with high kvs value.
Page 3.14



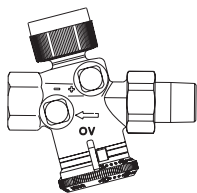
"Hydrocontrol VTR" Bronze double regulating and commissioning valves

For the hydronic balancing.
Page 3.26



DDC "CR-BX" Central control and regulating techniques

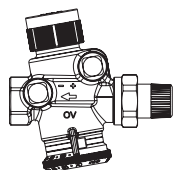
For central temperature control. Setback periods and monitoring functions.
Page 12.31



3.o Products for radiant and chilled ceiling systems

Content

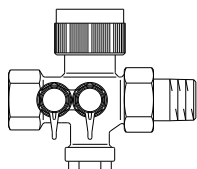
Products for radiant and chilled ceiling systems	3.100
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“Cocon QTZ” Pressure independent control valves
with connection thread M 30 x 1.5 for thermostats and actuators

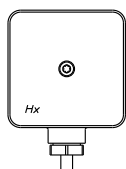
This is a summary of valves which are required for radiant and chilled ceiling systems, for the hydronic balancing and for the temperature and flow control.

Control for instance of a room temperature via actuators and thermostats and automatic limitation of the volume flow to a presettable maximum value.
Page 3.52



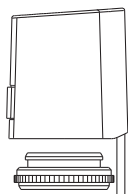
“Cocon 2TZ” Regulating valves

Control for instance of a room temperature via actuators and thermostats and automatic limitation of the volume flow to a presettable fixed value.
Page 3.61



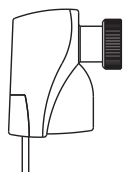
Dew point control

To avoid condensation.
Page 3.88



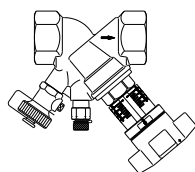
Electrothermal actuators
with connection thread M 30 x 1.5

With two point or 0-10 V control.
Page 3.89



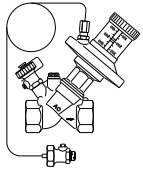
Electromotive actuators
with connection thread M 30 x 1.5

With two point, three point or 0-10 V control for the installation bus control systems EIB and LON.
Page 3.90



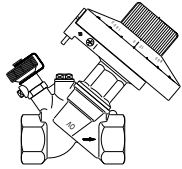
“Hydrocontrol VTR” Bronze double regulating and commissioning valves

For the hydronic balancing.
Page 3.26



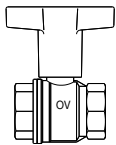
“Hydromat DTR” Differential pressure regulators

With the differential pressure in the installation changing, the differential pressure regulator maintains a constant fixed differential pressure between supply and return in the riser.
Page 3.37



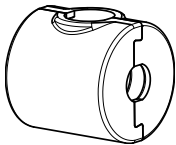
“Hydromat QTR” Flow regulators

With the flow in the installation changing, the flow regulator maintains a constant fixed volume flow in the riser.
Page 3.36



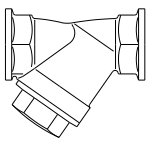
“Optibal” Ball valves

For fluids in heating and cooling systems.
Page 5.04



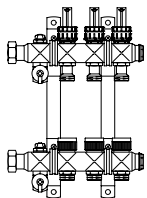
Insulation for “Optibal” ball valves

Meets the requirements of the German Energy Saving Directive according to appendix 5, table 1, line 5.
Page 5.06



Strainers
bronze

For fluids in heating and cooling systems, with wire baskets with different mesh sized to choose.
Page 5.32



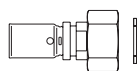
“Multidis SF” Stainless steel distributors/collectors for surface heating and cooling

Models for 2 up to 12 circuits with flow measuring and regulating devices.
Page 2.58



“Ofix” Compression fittings

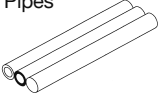


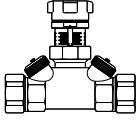
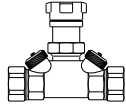
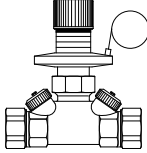
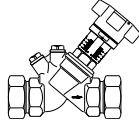
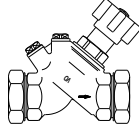
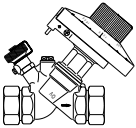
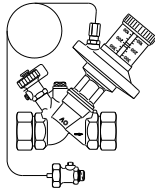



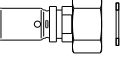
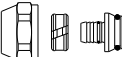

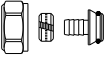



For different pipe materials and their connection to valves and distributors/collectors.
Pages 1.140 and 2.51



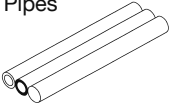

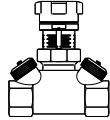
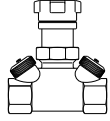
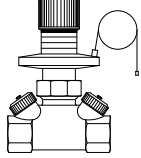
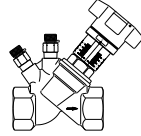
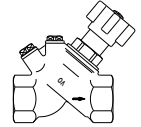
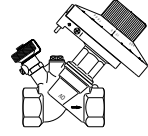
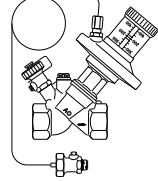


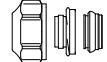

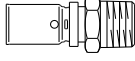
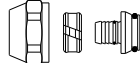

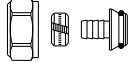
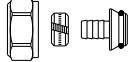

3.p Connection system

Content

Summary of the product groups and connection systems with male thread	3.104
Summary of the product groups and connection systems with female thread	3.105

Pipes 	Connection method	Connection system		Male threaded connection
		Connection fitting	Additional fitting	Oventrop valves (examples)
Copper pipe, stainless steel pipe, precision steel pipe 1)	Screwed connection	 Collar nut, compression ring and ring gasket for G 3/4 male thread according to DIN EN 16313 (cone "Euro") soft sealing Item no. 102744. Page 1.141	 Connection piece Item no. 15030.. Page 11.32	Valves for hydronic balancing       
Copper pipe 1)	Screwed connection	 Collar nut and compression ring for G 3/4 male thread according to DIN EN 16313 (cone "Euro") metal to metal sealing Item no. 102747. Page 1.141		
	Soldering connection	 Item no. 10610.. Page 3.45	—	
Stainless steel pipe 1)	Press connection	 Item no. 42015.. Page 8.69	—	
"Copipe" Composition pipe	Press connection	 Item no. 15121.. Page 11.12	—	
	Screwed connection	 Item no. 15079.. Page 11.32	 Connection piece Item no. 15030.. Page 11.32	
PE-Xc pipe	Screwed connection	 Collar nut, compression ring and outlet for G 3/4 male thread according to DIN EN 16313 (cone "Euro") Item no. 10277.. Page 1.141		
Steel pipe as well as screwed fittings	Screwed connection	 Item no. 10613.. Page 3.45  Item no. 10614.. Page 3.45	—	
	Welding connection	 Item no. 10605.. Page 3.45	—	
Other pipes e.g. stainless steel pipe, thick walled plastic pipe	All other pipes – with their special connection – may be connected with flat sealing tailpipes (with ring gaskets and collar nuts) to Oventrop flat sealing and male threaded valves.			

This table is not exhaustive.

Pipes 	Connection method	Connection system		Female threaded connection
		Connection fitting	Additional fitting	Oventrop valves (examples)
Copper pipe 1)	Screwed connection	Compression nut and compression ring  Item no. 10271.. Female thread G 3/8-G 3/4, Page 3.45	-	Valves for hydronic balancing       
		Collar nut and compression ring  for G 3/4 male thread according to DIN EN 16313 (cone "Euro") metal to metal sealing Item no. 102747. Page 1.141	Double nipple  Item no. 15031.. Page 11.32	
		Collar nut, compression ring and ring gasket  for G 3/4 male thread according to DIN EN 16313 (cone "Euro") soft sealing Item no. 102744. Page 1.141		
Copper pipe, stainless steel pipe, precision steel pipe 1)	Press connection	 Item no. 42015/16.. Page 3.46/3.47	-	
"Copipe" Composition pipe	Press connection	 Item no. 15120.. Page 11.12	-	
	Screwed connection	 Item no. 15079.. Page 11.32	Double nipple  Item no. 15031.. Page 11.32	
Collar nut, compression ring and outlet  Item no. 10277.. Page 1.141				
PE-Xc pipe thin walled plastic pipe	Screwed connection	Collar nut, compression ring and outlet  Item no. 10277.. Page 1.141	Double nipple  Item no. 15031.. Page 11.32	
Steel pipe				seal directly

1) Pipes with a wall thickness ≤ 1 mm will need reinforcing sleeves, except when the soft sealing fitting 102744. is used! Page 1.141

