

Data sheet

ON/OFF zone valves (PN 16)

AMZ 112, AMZ 113

Description



The ON / OFF zone valves type AMZ 112 and AMZ 113 are typically used in connection with:

- Domestic and commercial central heating applications
- Domestic hot water applications
- Solar energy plants
- Priority control of hot water supply and heating (diverting function)
- Priority control of boiler and solid fuel installations (diverting function).

The ON / OFF zone valves can be applied together with most Danfoss Room Thermostats, particularly type RET 230 (single poled switch) and programmable Room Thermostats type TP 5000 / 7000. Other compatible room thermostats are available, please see www.danfoss.com/heating for details.

The actuator can be controlled by a SPST or SPDT switch.

The limit stop switch can be used for start / stop of a fan or a circulation pump in an entirely open valve.

Ordering

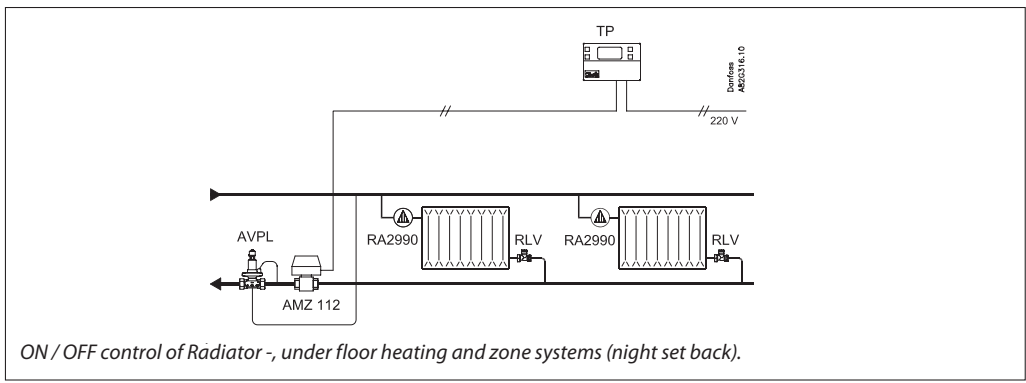
AMZ 112 2-port valve / actuator

DN	k_{vs} (m ³ /h)	Connection	Max. Δp Valve	Code No.	
				230V	24V
15	17	R _p 1/2	6 bar	082G5501	082G5520
20	41	R _p 3/4		082G5502	082G5521
25	68	R _p 1		082G5503	082G5522
32	123	R _p 1 1/4		082G5514	082G5523
40	198	R _p 1 1/2		082G5515	082G5524
50	290	R _p 2		082G5516	082G5525

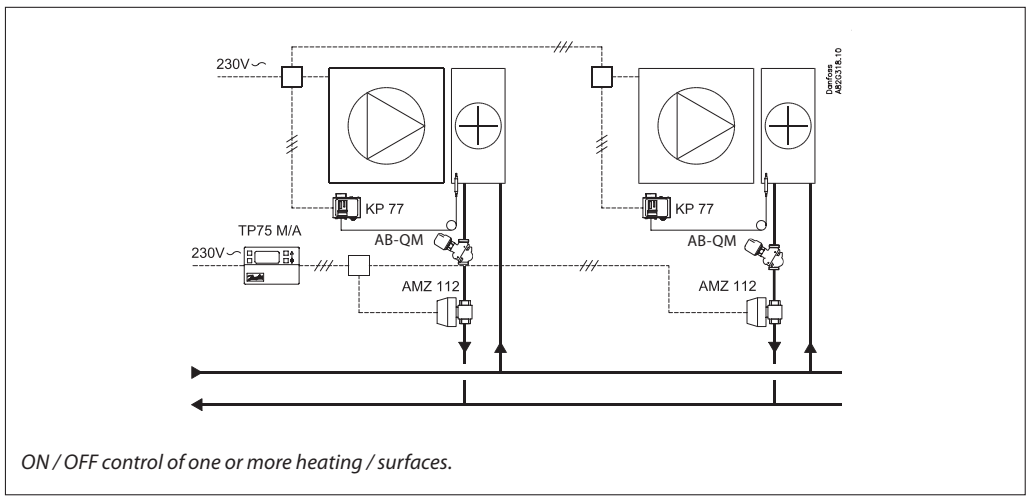
AMZ 113 3-port valve / actuator

DN	k_{vs} (m ³ /h)	Connection	Max. Δp Valve	Code No.	
				230V	24V
15	3.8	R _p 1/2	6 bar	082G5511	082G5526
20	7.7	R _p 3/4		082G5512	082G5527
25	11.6	R _p 1		082G5513	082G5528

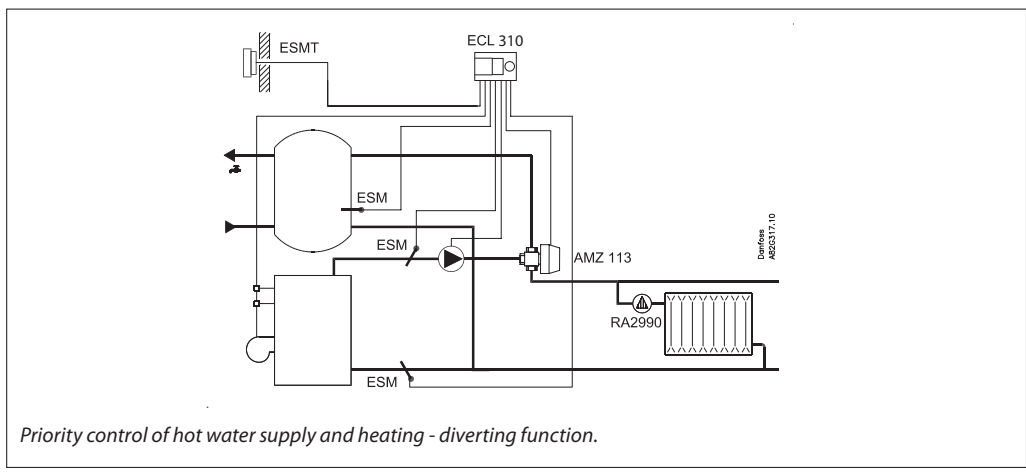
Application principles



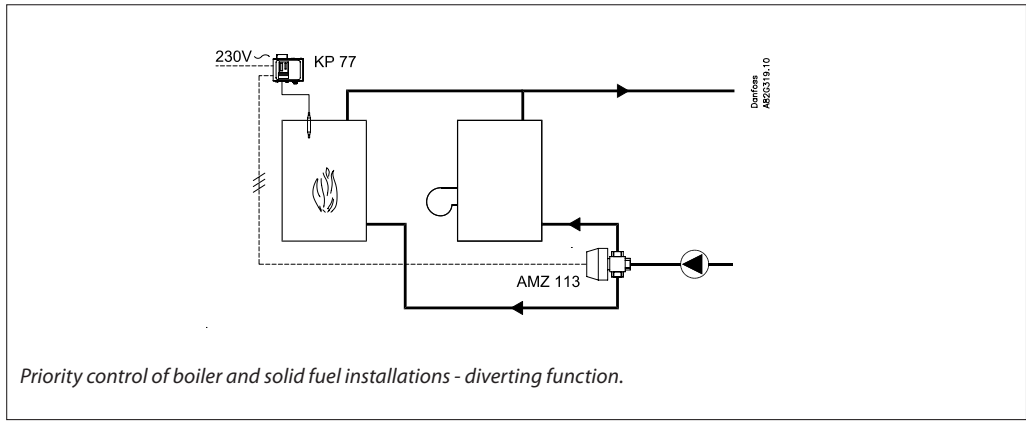
ON / OFF control of Radiator -, under floor heating and zone systems (night set back).



ON / OFF control of one or more heating / surfaces.



Priority control of hot water supply and heating - diverting function.



Priority control of boiler and solid fuel installations - diverting function.

Technical data

Actuator

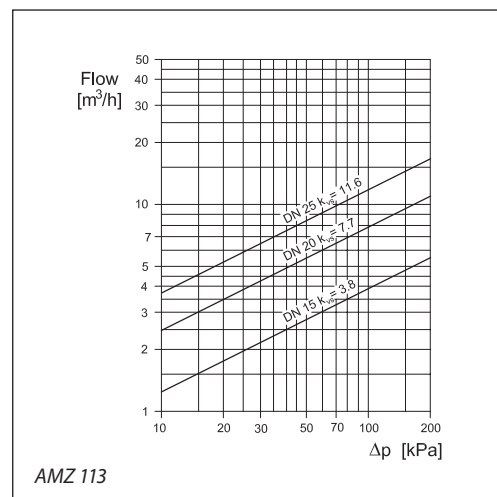
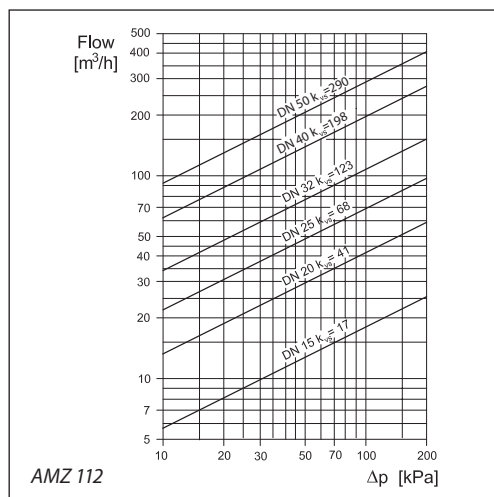
Type	AMZ 112 (230 VAC, DN 15-32)	AMZ 112 (230 VAC, DN 40/50)	AMZ 113 (230 VAC)
Supply voltage	230 V, 50 / 60 Hz		
Micro switch	1 (1) A, 250 VAC		
Power consumption	9.3 VA @ By operation 5 VA @ Open position 0 VA @ Closed position	9 VA @ By operation 5 VA @ Open position 0 VA @ Closed position	9.3 VA @ By operation 5 VA @ Open position 0 VA @ Closed position
Electrical protection class	Class II acc. EN-60335-1		
Enclosure	IP 44 acc. IEC 60529		
Rotation time	30 sec / 90°	32 sec / 90°	60 sec / 90°
Ambient temperature	0 ... 50 °C		
Humidity	RH 0% ... 80% Non condensed		
Wire	4 x 0.5 mm ² , L= 1.5 m	4 x 0.5 mm ² , L= 2 m	4 x 0.5 mm ² , L=1.5 m

Type	AMZ 112 (24 VAC, DN 15-32)	AMZ 113 (24 VAC)
Supply voltage	24 V, 50 Hz	
Micro switch	1 (1) A, 250 VAC	
Power consumption	6 VA @ By operation 1 VA @ Open position 0 VA @ Closed position	
Electrical protection class	Class II acc. EN-60335-1	
Enclosure	IP 44 acc. IEC 60529	
Rotation time	30 sec / 90°	60 sec / 90°
Ambient temperature	0 ... 50 °C	
Humidity	RH 0% ... 80% Non condensed	
Wire	4 x 0.5 mm ² , L= 1.5 m	4 x 0.5 mm ² , L= 1.5 m

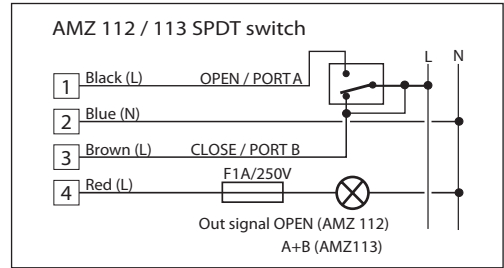
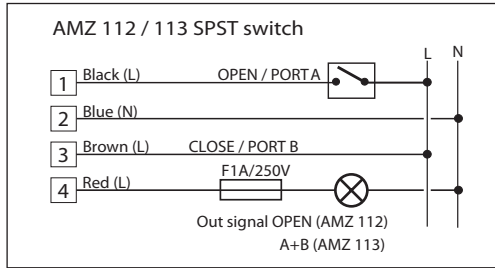
Valve

Type	AMZ 112, AMZ 113
Medium temperature	2 ... 130 °C
Nominal pressure	PN 16
Medium	Circulation water / glycolic water up to 30%
Max. operating torque	8 Nm
Max. Δp valve	6 bar
Materials	
Body - stem	Hot stamped brass CuZn40Pb2 Ni plated
Ball	Hot stamped brass CuZn40Pb2 Cr plated
Gaskets	PTFE - FPM - EPDM
Connection	Internal thread Rp ISO 7/1

Sizing



Wiring



WARNING!
By controlling electronic pump (energy saving, pressure controlled) use relay because of generating high current peaks!

AMZ 112 / 113 SPST switch

Installation positions

AMZ 112 - DN15-DN32

AMZ 113

AMZ 112 - DN40-DN50

Manual control

Manual control - AMZ 1 12, DN15-DN32

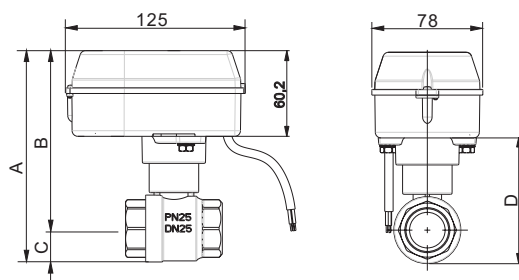
Manual control - AMZ 1 13

Manual control - AMZ 1 12, DN40, DN50

Note:
When button for manual operating is in <MAN> position, actuator stays in temporary position irrespective of control signal.

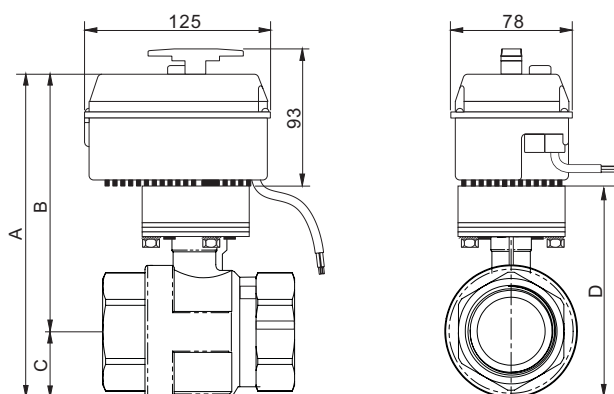
Dimensions

AMZ 112, DN 15-32



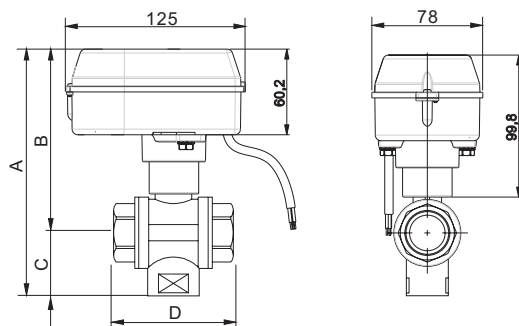
DN (mm)	Connection G	A (mm)	B (mm)	C (mm)	D (mm)	Kvs (m ³ /h)	Weight (kg)
15	1/2"	139	121.5	17.5	63	17	0.84
20	3/4"	144	124.5	19.5	57	41	0.81
25	1"	153	129.5	23.5	68	68	0.97
32	1 1/4"	163	134.5	28.5	81	123	1.24

AMZ 112, DN 40/50



DN (mm)	Connection G	A (mm)	B (mm)	C (mm)	D (mm)	Kvs (m ³ /h)	Weight (kg)
40	1 1/2"	212	176	36	119	198	2.32
50	2"	228	184	44	135	290	3.23

AMZ 113



DN (mm)	Connection G	A (mm)	B (mm)	C (mm)	D (mm)	Kvs (m ³ /h)	Weight (kg)
15	1/2"	152	118	34	64	3.8	0.88
20	3/4"	164	125	39	74	7.7	1.10
25	1"	175	130	45	87	11.6	1.40

