

Data sheet

Zone valves

AMZ 112, AMZ 113

Description



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

- Commercial central heating applications
- Solar energy plants
- HVAC
- 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 RET 1000/2000. Other compatible room thermostats are available, please see www.danfoss.com/heating for details.

Features:

- Indication of actual valve position;
- LED indication of turning direction;
- Manual valve turning mode enabled by a permanent clutch;
- No damage in case of valve blocking;
- Silent and reliable operation;
- Maintenance free;
- Integrated AUXILIARY switch;
- LED indication of activated AUXILIARY switch.

Main Data:

- Nominal voltage:
 - 230 V AC, 50/60 Hz
 - 24 V AC, 50/60 Hz
- Rotation angle 90°
- Actuator running speed: AMZ 112
 - DN 15-20: 30 sec / 90°
 - DN 25-50: 60 sec / 90°
- Actuator running speed: AMZ 113
 - DN 15: 30 sec / 90°
 - DN 20-32: 60 sec / 90°
- Control signal: 2-point

Ordering

AMZ 112 2-port valve/actuator

DN	k _{vs} (m ³ /h)	Connect.	Control type	Code No.	
				230 V	24 V
20	28	Cu-Cu 22	2-point	-	082G5427
15	17	R _p ½		082G5406	082G5400
20	28	R _p ¾		082G5407	082G5401
25	39	R _p 1		082G5408	082G5402
32	84	R _p 1¼		082G5409	082G5403
40	156	R _p 1½		082G5410	082G5404
50	243	R _p 2		082G5411	082G5405

AMZ 113 3-port valve/actuator

DN	k _{vs} (m ³ /h)	Connection	Control type	Code No.	
				230 V	24 V
15	4.3	R _p ½	2 - point	082G5418	082G5412
20	8.3	R _p ¾		082G5419	082G5413
25	13	R _p 1		082G5420	082G5414
32	21	R _p 1¼		082G5421	082G5415

Accessories

Type	Code No.
AUX switch ring AMZ	082G1635
Junction box 24V	082G1636
Replacement actuator AMZ 112/113 24V 15 Nm	082G1637
Replacement actuator AMZ 112/113 230V 15 Nm	082G1638
Linkage kit AMZ 112/113	082G1639

Technical data

Actuator

Power supply	2-point	V	24 ac or 230 ac
Power consumption		VA	AMZ 112: 2.5 AMZ 113: 3.5
Frequency		Hz	50/60
Running speed ¹⁾	2-point	sec/90°	15/60
Control type			2-point
Operating torque		Nm	5, 10, 15
Rotation angle			90 °
Auxiliary switch			adjustable 0-90°
Auxiliary switch max. load		A	6 (24V ac, 230V ac)
Max. medium temperature			110
Ambient temperature		°C	0 ... 50
Storage and transport temperature			-10 ... 80
Protection Class			II according to EN 60730-1
Grade of enclosure			IP42 according to EN 60529
Weight	AMZ 112	g	728
	AMZ 113		906
Color / material			dark grey/PC
- marking in accordance with standards			Low Voltage Directive 2006/95/EC EMC-Directive 2004/108/EC RoHS II: 2011/65/EU Applied standards: EN 60730-1, EN 60730-2-14

¹⁾ 5 Nm is 30 sec/90°; 10, 15 Nm is 60 sec/90°

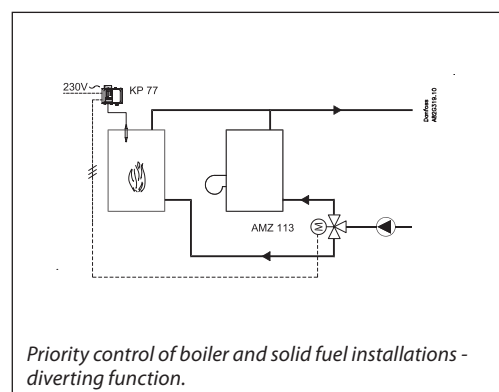
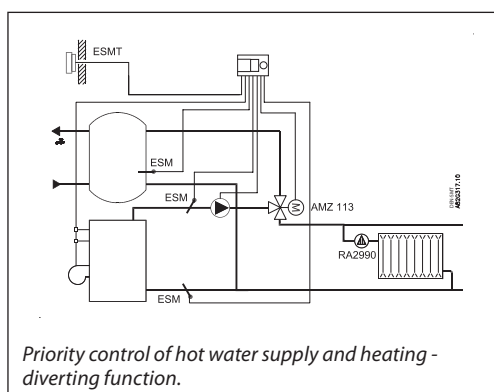
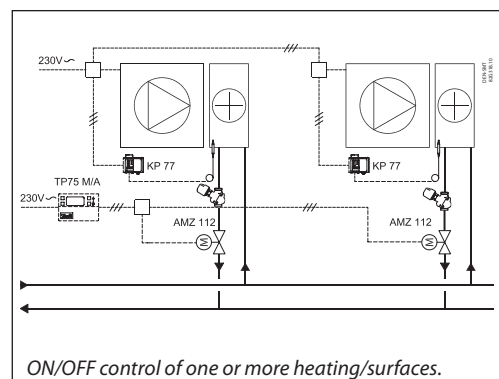
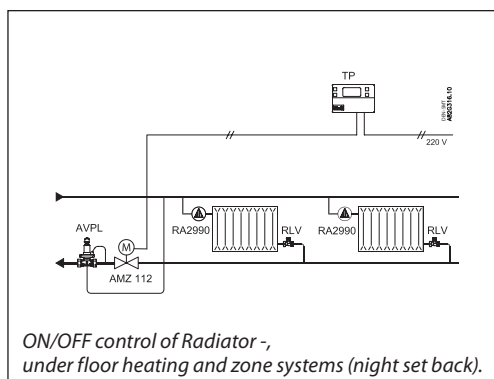
Valve AMZ 112

DN		15	20	25	32	40	50
Nominal pressure	PN	40				25	
Flow (k _{vs})	m³/h	17	28	39	84	156	243
Valve characteristic		Logarithmic					
Medium temperature	°C	2 ... 130 (Actuator max. 110)					
Medium		Water, glycol ≤50%, air, nonaggressive fluids					
Max. operating Δp	bar	6					
Leakage		according to UNI EN331 (<20cc/h)					
Valve neck		ISO 5211					
Connection		Internal thread Rp ISO 7/1					
Certifications and standards		CE-PED – CSA - GOST					
Materials							
Body		CW 617 N UNI EN 12165					
Ball, Stem		CW 614 N UNI EN 12164					
Antifriction ring		PTFE					

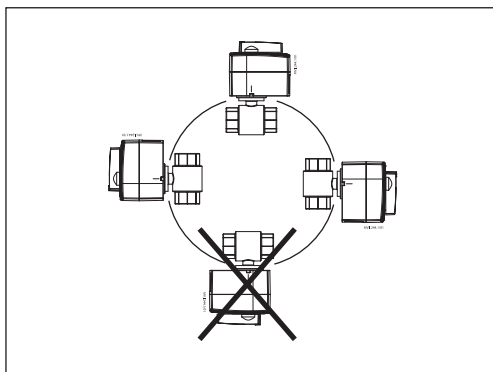
Valve AMZ 113

DN		15	20	25	32
Nominal pressure	PN	40			
Flow (k _{vs})	m³/h	4.3	8.3	13	21
Medium temperature	°C	2 ... 130 (Actuator max. 110)			
Medium		Water, glycol ≤50%, air, nonaggressive fluids			
Max. operating Δp	bar	6			
Leakage		according to UNI EN331 (<20cc/h)			
Valve neck		ISO 5211			
Connection		Internal thread Rp ISO 7/1			
Certifications and standards		CE-PED – CSA - GOST			
Materials					
Body		CW 617 N UNI EN 12165			
Ball, Stem		CW 614 N UNI EN 12164			
Antifriction ring		PTFE			

Application principles

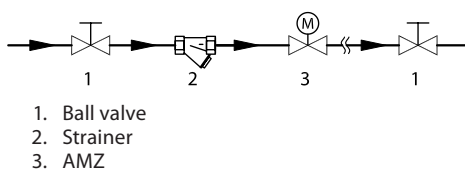


Installation positions

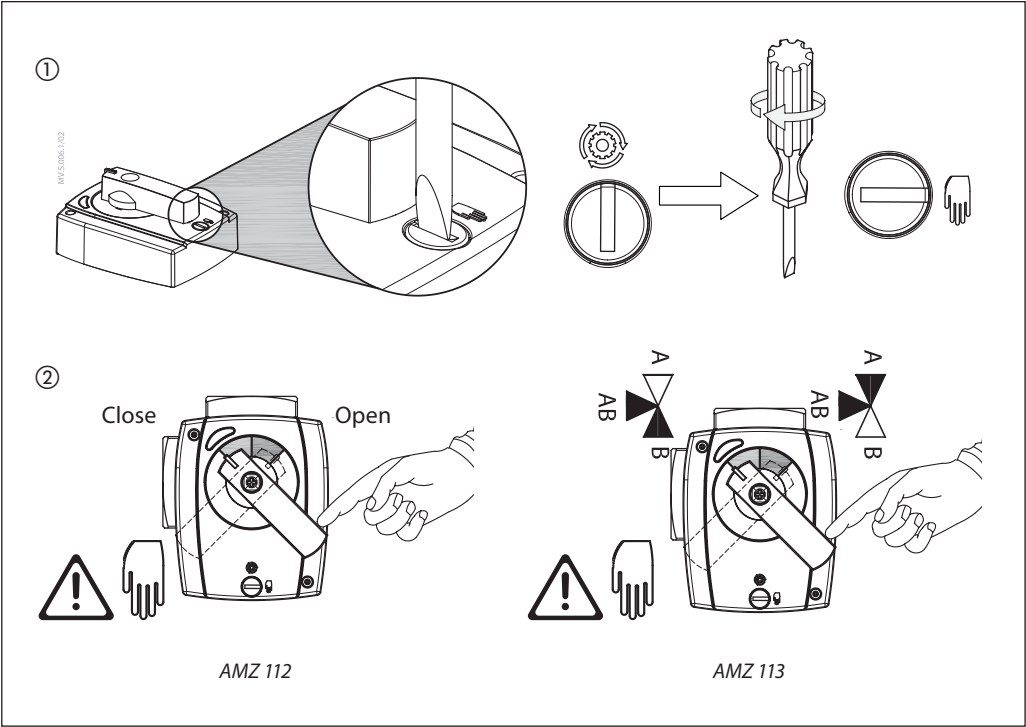


Hydraulic installation

Recommended installation of the electric actuated ball valve



Manual override



LED signalling

LED orange (Rotate Left)
LED green / red
LED orange (Rotate Right)

AMZ 112/113

LED color	2-point (AMZ 112/113)
Orange	Rotation left / right
Green	/
Red	AUX switch activation

Wiring

N L 230 V(24V)~

L 230 V(24V)~

Under cover

1 2 3 4 5 6

AUX

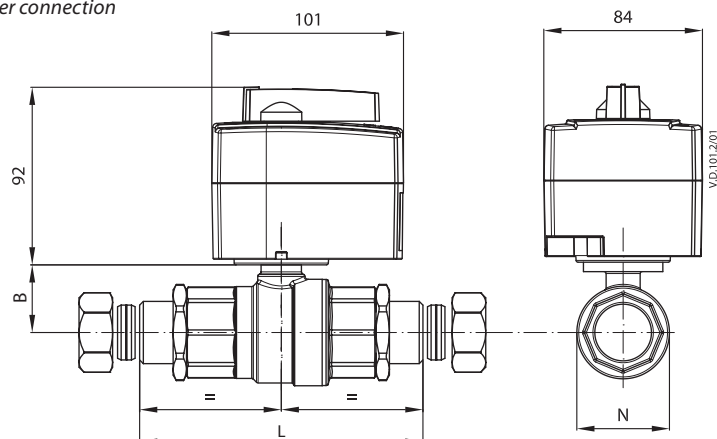
2-point/2-point+switch

Direct/Inverse function

Jumper	Wiring	Open Port
DIR	L = 2	AB-B
	L = 2 & 3	AB-A
INV	L = 2	AB-B
	L = 2 & 3	AB-B

Dimensions

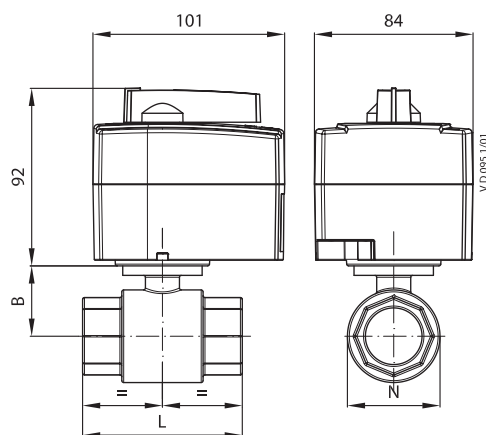
AMZ 112 - Copper connection



AMZ 112

DN	Connection (G)	L	B	N
		mm		
20	Cu-Cu 22	111.5	33	37

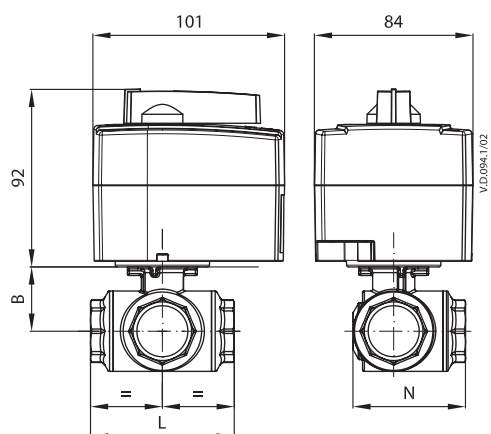
AMZ 112



DN	Connection (G)	L	B	N
		mm		
15	1/2"	61	29.4	37
20	3/4"	69.5	33	37
25	1"	84.5	37.2	42
32	1 1/4"	98.5	47.5	42
40	1 1/2"	110	53	42
50	2"	130	64	48

Dimensions (continuous)

AMZ 113



DN	Connection (G)	L	B	N
		mm		
15	1/2"	64.5	38	49.5
20	3/4"	78	42	59.5
25	1"	97	46.5	74.5
32	1 1/4"	118	61.25	95.5



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