

Data sheet

ON/OFF zone valves

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 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,
- Output torque
 - AMZ 112
 - 5 Nm: DN 15-32
 - 10 Nm: DN 40-50
 - AMZ 113
 - 5 Nm: DN 15-25
 - 15 Nm: DN 32
- Rotation angle 90°;
- Actuator running speed
 - 5 Nm: 30 sec / 90°
 - 10, 15 Nm: 60 sec / 90°
- Control signal: 2-point

Ordering

AMZ 112 2-port valve/actuator

| DN | k _{vs} (m ³ /h) | Connection | Code No. | |
|----|--|-------------------|-----------------|-----------------|
| | | | 230 V | 24 V |
| 15 | 17 | Cu-Cu 22 | - | 082G5426 |
| 20 | 41 | Cu-Cu 22 | - | 082G5427 |
| 15 | 17 | R _p ½ | 082G5406 | 082G5400 |
| 20 | 41 | R _p ¾ | 082G5407 | 082G5401 |
| 25 | 70 | R _p 1 | 082G5408 | 082G5402 |
| 32 | 121 | R _p 1¼ | 082G5409 | 082G5403 |
| 40 | 200 | R _p 1½ | 082G5410 | 082G5404 |
| 50 | 292 | R _p 2 | 082G5411 | 082G5405 |

AMZ 113 3-port valve/actuator

| DN | k _{vs} (m ³ /h) | Connection | Code No. | |
|----|--|-------------------|-----------------|-----------------|
| | | | 230 V | 24 V |
| 15 | 17 | R _p ½ | 082G5418 | 082G5412 |
| 20 | 41 | R _p ¾ | 082G5419 | 082G5413 |
| 25 | 70 | R _p 1 | 082G5420 | 082G5414 |
| 32 | 121 | R _p 1¼ | 082G5421 | 082G5415 |

Technical data
Actuator

| | | |
|--------------------------------------|---------|--|
| Power supply | V | 24 AC or 230 AC |
| Power consumption | VA | 3,5 (<0,2 W standby) |
| Frequency | Hz | 50/60 |
| Running speed ¹⁾ | sec/90° | 30, 60 |
| Control input | | 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 | 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°

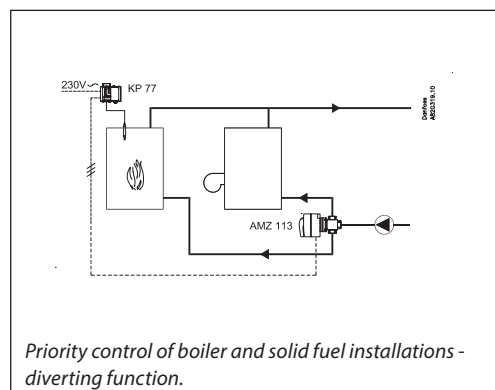
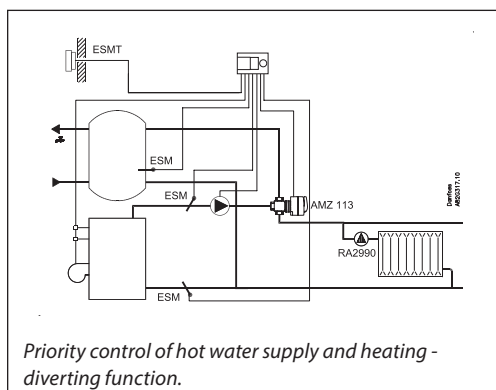
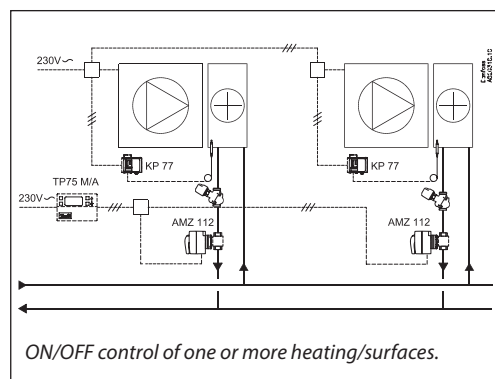
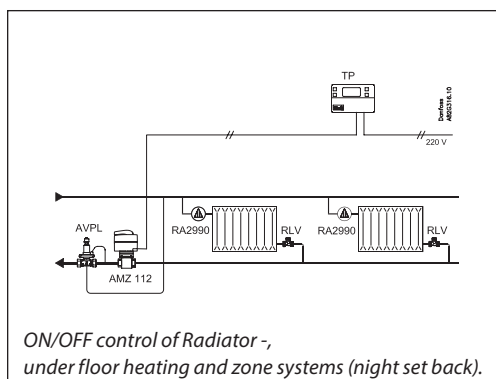
Valve AMZ 112

| DN | | 15 | 20 | 25 | 32 | 40 | 50 |
|------------------------------|-------------------|---|------|------|------|------|------|
| Nominal pressure | PN | 40 | | | | 25 | |
| Flow (k _{vs}) | m ³ /h | 17 | 41 | 70 | 121 | 200 | 292 |
| Medium temperature | °C | -20 ... 130 | | | | | |
| Medium | | Drinking water, water, glycol ≤50%, air, nonaggressive fluids | | | | | |
| Max. operating torque | Nm | 1,35 | 1,85 | 2,80 | 3,30 | 4,00 | 4,75 |
| Max. operating Δp | bar | 6 | | | | | |
| 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 | | P.T.F.E. | | | | | |

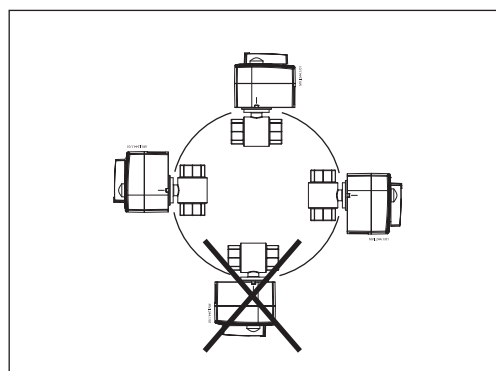
Valve AMZ 113

| DN | | 15 | 20 | 25 | 32 |
|------------------------------|-------------------|---|-----|-----|-----|
| Nominal pressure | PN | 40 | | | |
| Flow (k _{vs}) | m ³ /h | 17 | 41 | 70 | 121 |
| Medium temperature | °C | -20 ... 130 | | | |
| Medium | | Drinking water, water, glycol ≤50%, air, nonaggressive fluids | | | |
| Max. operating torque | Nm | 2,7 | 3,7 | 5,6 | 6,6 |
| Max. operating Δp | bar | 6 | | | |
| 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 | | P.T.F.E. | | | |

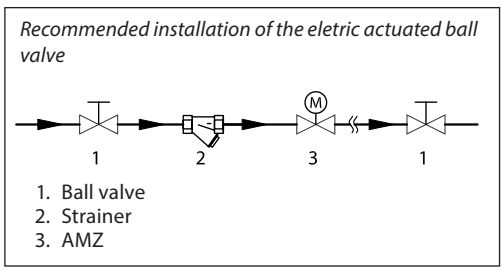
Application principles



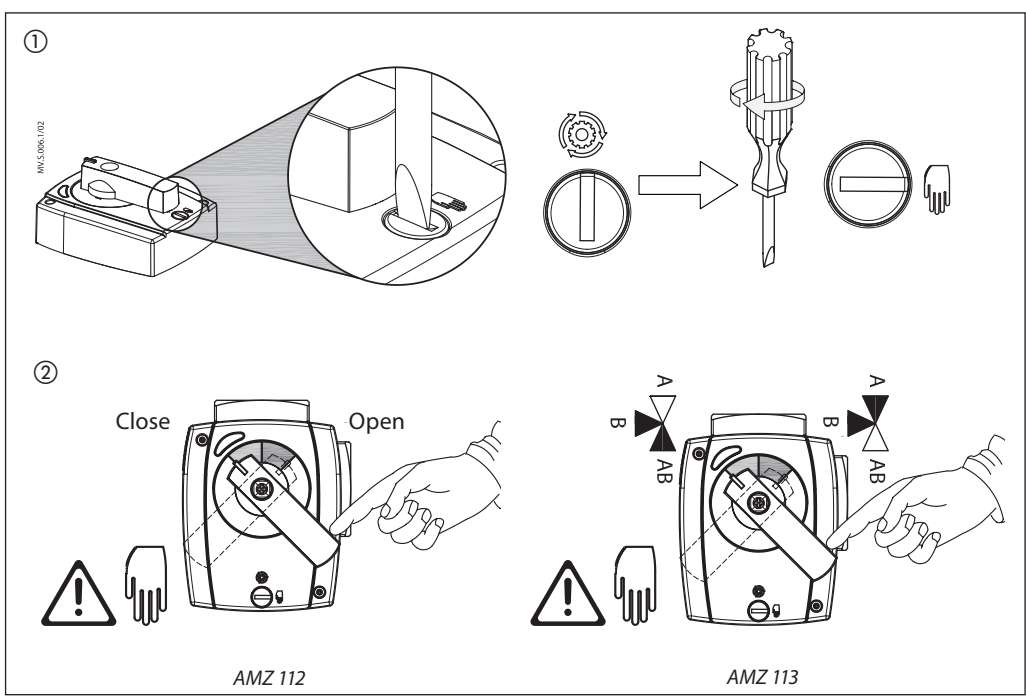
Installation positions



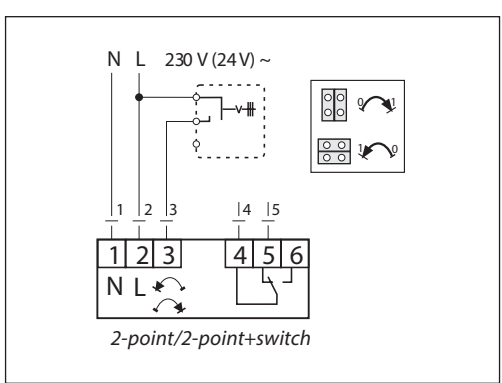
Hydraulic installation



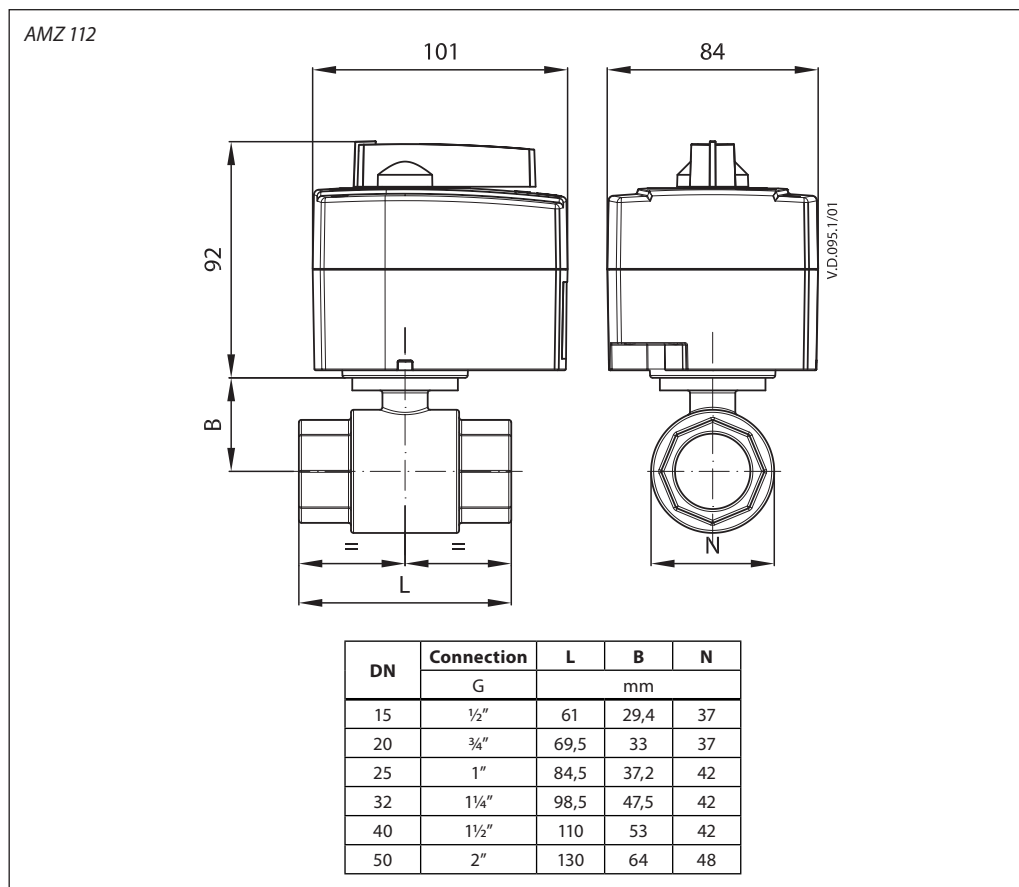
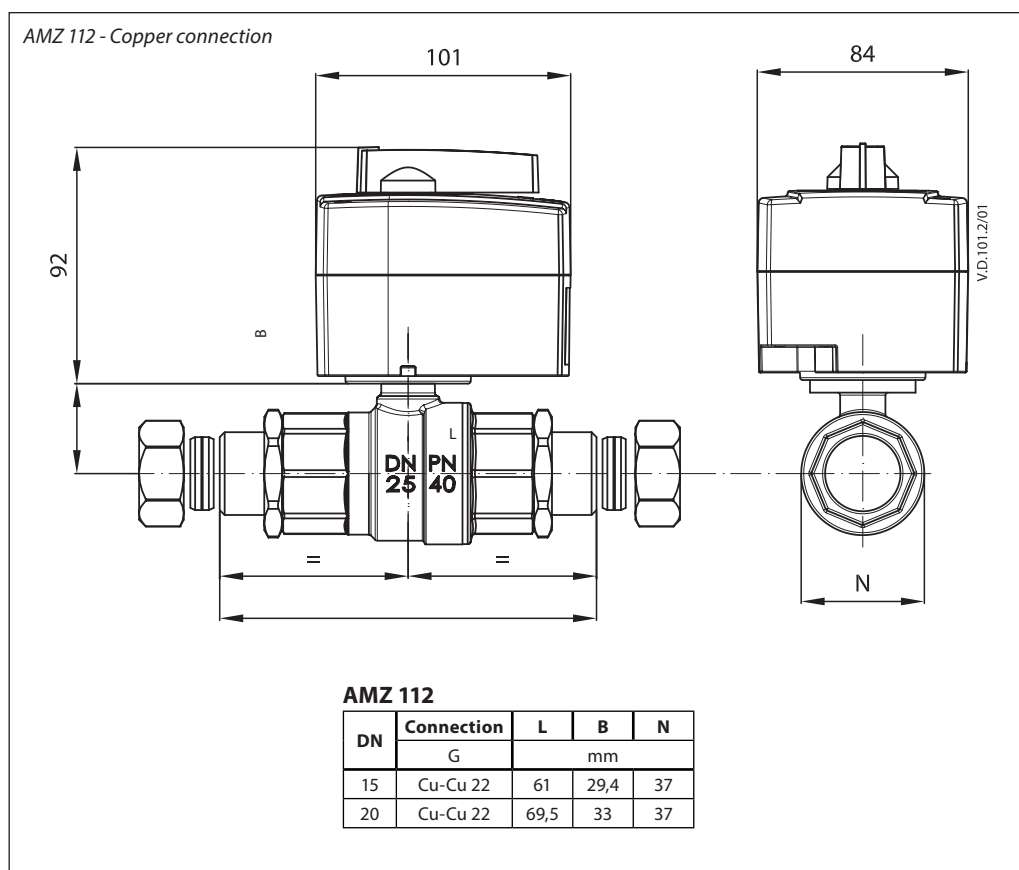
Manual override



Wiring



Dimensions



Dimensions *continues*

