



Manual balancing

LENO™ MSV-S

Description

LENO™ MSV-S is a partner valve for all manual balancing valves in the LENO family. LENO™ MSV-S can also be applied as a high quality ball valve.

LENO™ MSV-S is a shut off valve with high capacity drain.

LENO™ MSV-S can be mounted in heating/cooling and domestic hot water systems as a shut off valve with drain.

It is recommended to use LENO™ MSV-S together with all LENO family balancing valves.

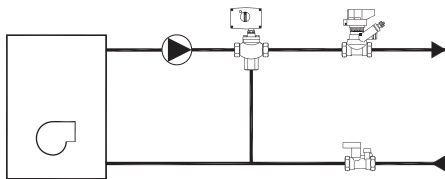
DN 15 and 20 valves are available with internal or external thread. Other dimensions with internal thread.

LENO™ MSV-S is a new generation of partner/ballvalves for heating, cooling and domestic hot water systems.

Features & benefits

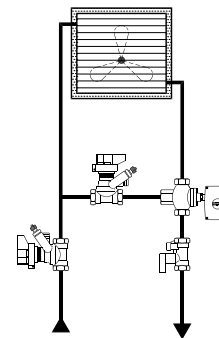
- Removable handle for easy mounting
- Handle can be turned both to the left and to the right when shutting off the ball valve
- Screw will stay in the handle when it is dismantled
- Drain with high k_v -value
- 6 mm hexagon key to drain the valve
- Measure pressure
- Cover caps to protect $\frac{3}{4}$ " drain thread
- Space for insulation between valve body and handle
- Replaceable cover caps (different colours) for easy identification of flow/return, domestic hot/cold water and circulation
- Cover cap to protect screw inside handle from dirt

Applications



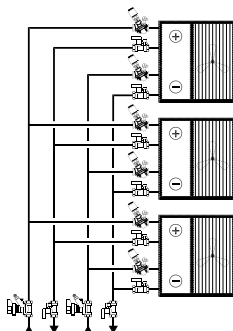
Boiler, flat station or heat pump in 1-family houses.

- For balancing.
- Shut-off function for service/repair.



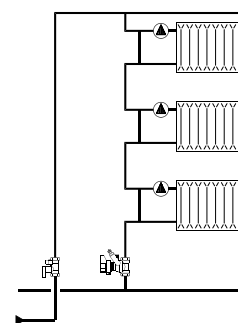
Air handling unit

- For constant flow.
- For balancing.
- Shut-off function for service/ repair.



Fan coils

- For flow verification.
- Shut-off function for service/ repair.




1-pipe system

- For balancing.
- Shut-off function for service/repair.

Ordering

Product code numbers

LENO™ MSV-S valve with internal thread

Type	Material	Size	k_{vs} (m ³ /h)	Drain flow K_{vs} (m ³ /h)	Connection	Code no.
	DZR* Brass	DN 15	3.0	0.3	R _p 1/2"	003Z4011
		DN 20	6.0	0.3	R _p 3/4"	003Z4012
		DN 25	9.5	0.3	R _p 1"	003Z4013
		DN 32	18	0.3	R _p 1 1/4"	003Z4014
		DN 40	26	0.3	R _p 1 1/2"	003Z4015
		DN 50	40	0.3	R _p 2"	003Z4016



* Corrosion resistant brass

LENO™ MSV-S valve with external thread

Material	Size	k_{vs} (m ³ /h)	Drain flow K_{vs} (m ³ /h)	Connection	Code no.
DZR** Brass	DN 15	3.0	0.3	G 3/4" **	003Z4111
	DN 20	5.9	0.3	G 1"	003Z4112

** Eurocone DIN V 3838

LENO™ MSV-BD/S set solution

Type	Material	Size	k_{vs} (m ³ /h)	Drain flow K_{vs} (m ³ /h)	Connection	Code no.
 	DZR*** Brass	DN 15	3.0	0.3	R _p 1/2"	003Z4051
		DN 20	6.0	0.3	R _p 3/4"	003Z4052
		DN 25	9.5	0.3	R _p 1"	003Z4053
		DN 32	18	0.3	R _p 1 1/4"	003Z4054
		DN 40	26	0.3	R _p 1 1/2"	003Z4055
		DN 50	40	0.3	R _p 2"	003Z4056

*** Drain flow is measured at 1 bar static pressure and 0.1 bar differential pressure.




¹⁾ LENO™ MSV-S valve with internal thread: Corrosion resistant brass

²⁾ LENO™ MSV-BD/S set solution: Drain flow is measured at 1 bar static pressure and 0.1 bar differential pressure.

³⁾ LENO™ MSV-S valve with external thread: Eurocone DIN V 3838


Accessories code numbers

Type	Code no.
Cover cap handle - green, small handle fits DN15 - 25 valve, 5 pcs.	003Z4210
Cover cap handle - green, big handle fits DN32 - DN50 valve, 5 pcs.	003Z4211

Type	Material	Size	Code no.
	Adaptor for RLV-K 3/4"	DN15	003L0294
	Adaptor insert 1" ext. thread - flat seal	DN20	003Z4072
	Adaptor 1 1/4" ext. thread - flat seal	DN25	003Z4073
	Adaptor 1 1/2" ext. thread - flat seal	DN32	003Z4074
	Adaptor 1 3/4" ext. thread - flat seal	DN40	003Z4075
	Adaptor 2 1/4" ext. thread - flat seal	DN50	003Z4076

Compression fittings for valves with external thread

Pipe (mm)	Valve thread	PEX fittings, code no.	Alupex fittings, code no.
12 x 1.1	G 3/4	013G4150	
12 x 2	G 3/4	013G4152	013G4182
13 x 2	G 3/4	013G4153	
14 x 2	G 3/4	013G4154	013G4184
15 x 1.7	G 3/4	013G4165	
15 x 2.5	G 3/4	013G4155	013G4185
16 x 1.5	G 3/4	013G4157	
16 x 2	G 3/4	013G4156	013G4186
16 x 2.25	G 3/4		013G4187
17 x 2	G 3/4	013G4162	
18 x 2	G 3/4	013G4158	013G4188
18 x 2.5	G 3/4	013G4159	
20 x 2	G 3/4	013G4160	013G4190
20 x 2.5	G 3/4	013G4161	013G4191

Steel/copper pipes	Dimension	Code no.
	G 3/4 x 15	013G4125
	G 3/4 x 16	013G4126
	G 3/4 x 18	013G4128
	G 1 x 18	013U0134
	G 1 x 22	013U0135

Product details

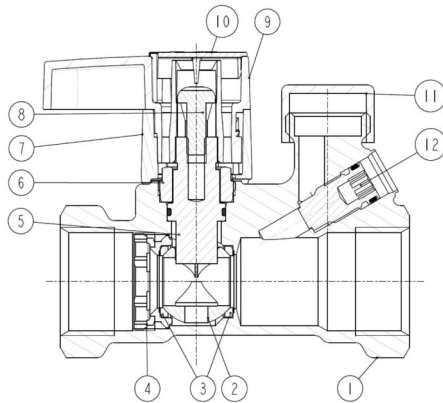
General data

Technical Data

Max. static working pressure	20 bar
Static test pressure	30 bar
Max. flow temperature	120 °C
Min. temperature	-20°C
Cooling liquids	Ethylene glycol / propylene glycol and HYCOOL (max. 30 %)

Design

1. Valve house
2. Ball
3. Ball seat
4. Supporting screw
5. Shut off bush
6. Top
7. Cover for handle
8. Screw for handle
9. Handle
10. Cap for handle
11. Protection cap
12. Drain screw



Materials

Materials and parts in contact with water

Valve body	DZR brass
O-rings	EPDM
Ball	Brass/chromium plated
Ball sealing	PTFE

Capacity

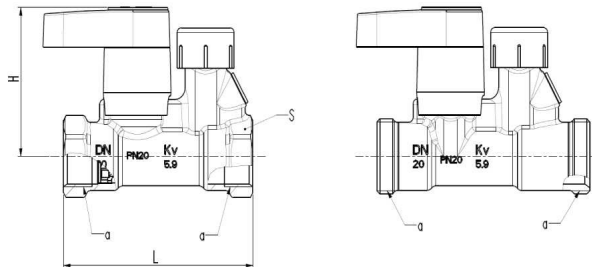
Draining - High Capacity

Possible drain through the valve using a 6 mm hexagon key. When handle is closed drain follows from the side where the drain is placed.

Drain cock has 3/4" thread.



Dimensions



Size (DN)	ISO 228-1 a (mm)	L (mm)	H (mm)	S (mm)
15	G 1/2	82	92	27
20	G 3/4	89	95	32
25	G 1	104	98	41
32	G 1 1/4	122	121	50
40	G 1 1/2	122	125	55
50	G2	151	129	67

Size (DN)	ISO 228-1 a (mm)	L (mm)	H (mm)
15	G 3/4A	101.25	92
20	G 1A	108.50	95

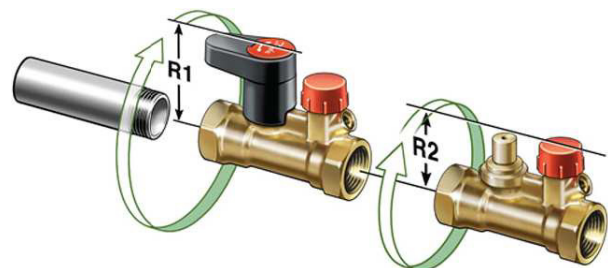
Connections

Fitting

Fitting Before fitting the valve, make sure that the pipe system is clean and:

1. The valve can be turned 360 degrees, if threaded pipe is used.

DN	R1/R2 (mm)
15	62/50
20	66/55
25	71/59
32	117/66
40	119/66
50	122/67



Removal of Handle

1. A screw becomes accessible when the cover cap is removed.
2. Loosen the screw and remove the handle.
3. When mounting the handle, valve and handle should fit together. Turn the handle until notch, and the handle will drop smoothly on the valve.

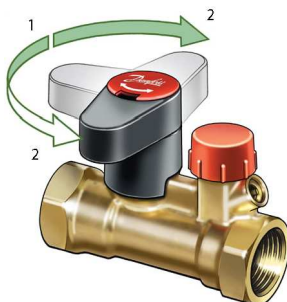


Open and Close

Open and Close Valve can be closed turning the handle in two directions.

Handle align with the valve = Open valve (1)

Handle across the valve = Closed valve (2)



Certificates, declarations and approvals

The list contains all certificates, declarations, and approvals for this product type. Individual code number may have some or all of these approvals, and certain local approvals may not appear on the list.

When you click on the link you will be directed to the latest version of the 'Declaration of Conformity'. Products developed and sold before this date of issue conform to the directives/standards in force at the time of their sale.

Approval type	Title	Certification body	Approval topic
Export Control Declaration	Butterfly, other valves, Manual balancing valves, one pipe solution valves and hot water balancing valves	Danfoss	
UA Declaration	Danfoss UA 2023-01-23 MTC ASV RA FH RAX PL03 PL28	Danfoss	PED, Pressure
Pressure Safety Certificate	LLC CDC EURO-TYSK UA.TR.089.1011.01-22	LLC CDC EURO TYSK - Ukraine	PED, Pressure
Manufacturer's Declaration	Danfoss MD BF26012023-en01	Danfoss	PED, Pressure, EU RoHS
EAC Declaration	EAC KZ 7100841.13.12.02338	EAC - Eurasian Customs Union	MD

Tender text

Tender Specifications

LENO™ MSV-S can be used in heating, cooling and domestic hot water systems.

Features	LENO™ MSV-S
Balancing / Commissioning	
Presetting	
Fixed orifice	
Self sealing measuring nipples	
Digital visible scale from more sides	
Shut-off function (ball valve)	•
Draining / filling	•
Draining / filling on both sides of the valve	
Removable handle	•
Closing indicator	
Allen key for ball valve	
Parallel measuring nipples	
360° rotating measuring station (drain cock and measuring nipples)	

- Removable handle for easy mounting of the valve.
- Handle can go both left and right when shutting off the ball valve.
- Cross headed screw can be loosened to dismount the handle.
- The screw will not fall out when the handle is dismounted.
- Drain with high kv-value for draining and filling the system.
- 6 mm hexagon key to drain the valve.
- Space for insulation between the valve body and the handle.
- Cover caps to protect 3/4" drain thread.
- Cover cap to protect screw inside handle from dirt.

DN 15 and 20 valves are available with internal or external thread. Other dimensions with internal thread.

DN 15 is designed with Euro cone, according to DIN V 3838.

LENO™ MSV-S has a leakage rate A according to BS 7350 : 1990, the ball valve is 100% tight.

Valve sizes	DN 15 – DN 50
Pressure class	PN20
Static test pressure	30 bar
Working temperature	-20°C to 120°C

The valve body is made of DZR brass.

The ball is made of chromium plated brass.

O-rings are made of EPDM rubber.

Contact details

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Danfoss offers a wide range of support along with our products, including digital information, software, mobile apps and expert guidance. See the possibilities below.



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