NOVAMIX VALUE

THERMOSTATIC MIXING VALVE

Maintaining constant mix temperatures and limiting temperatures in hot water systems

DESCRIPTION

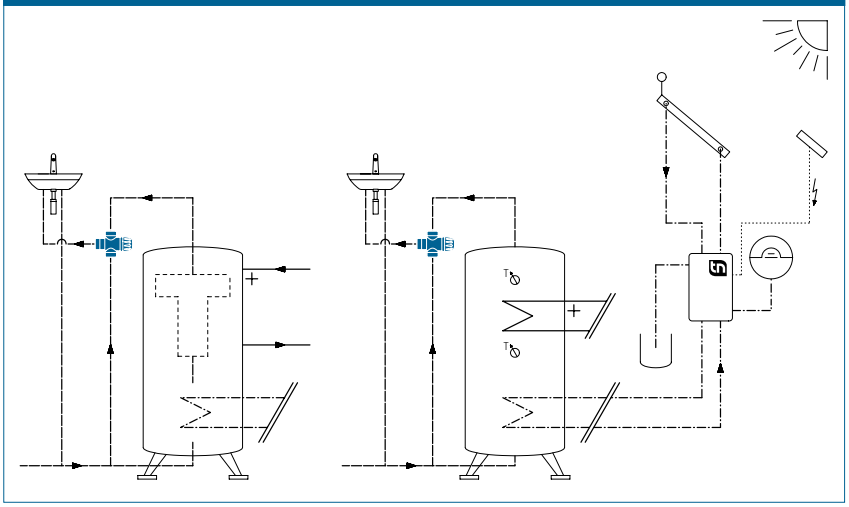
The automatic thermostatic mixing valve NovaMix Value ensures a constant temperature of the mixed water at the outlet when used as the central mixing device.
This prevents scalding at the outlet, even with high storage tank temperatures.
Wide area of possible application thanks to three different valve dimensions. Available with ¾" (DN15), 1" (DN20) and 1¼" (DN25) connection.
Special valve seals at the regulator piston keep undesired admixtures to a minimum*, resulting in maximum utilisation of the storage tank temperature.

The NovaMix Value is mainly used in sanitary applications as a regulating device for reducing the temperature of the water coming out of hot water storage tanks. For example as a mixing unit for constant water mixing temperatures in panel heating systems and for loading storage tanks by means of solid-fuel boilers.
If the cold water supply fails, the DHW supply is automatically interrupted and sealed off.

INSTALLATION POSITION

Any.

SYSTEM/BASIC DIAGRAM



ADVANTAGES

- Constant temperature of the water at the outlet
- Automatic mixing function without the need for auxiliary power and infinite regulation of the mixed water temperature
- High regulation precision
- Protection against scalding
- High k_{VS} values
- In the functional area: polished surfaces to prevent limescale deposits
- Mechanism to prevent adjustment of the nominal value
- No additional seals required when using the check valves (CV)
- Can be used in panel heating systems and for loading storage tanks by means of solid-fuel boilers

OPERATION

The mixing valve is supplied with hot water from the storage tank and cold water from the mains network.
The temperature of the mixed water is detected by the thermostatic expansion element. If the mixed water temperature diverges from the target value, the thermostatic expansion element moves the regulator piston, thus regulating the hot and cold water intake quantity accordingly, until the mixed water temperature corresponds to the target value.

* If the hot water lies 3K below the set mixing temperature, the cold water leak rate = 0. Otherwise, the maximum value for admixtures is 3K.

BUILDING CATEGORIES

For pipe installations in drinking water and heating area:

- Apartment blocks, housing estates, multiple dwelling units
- Residential care facilities, hospitals
- Administration and service buildings
- Hotels and restaurants, industrial kitchens
- School buildings and sports facilities
- Commercial and industrial buildings

SPECIFICATION TEXT

See www.taconova.com

TECHNICAL DATA

General

- Adjustable temperature ranges:
  - 20 – 50 °C
  - 45 – 65 °C
  - 35 – 70 °C
- k_{VS} values and dimensions as per the relevant tables
- Operating temperature $T_{0\,max}$: 100 °C
- Operating temperature $T_{0\,max}$ with check-valve (CV): 90 °C
- Max. operating pressure $P_{0\,max}$: 10 bar
- Min. operating pressure $P_{0\,min}$: 0,5 bar
- Working pressure (dynamic): max. 5 bar
- Constant inlet pressure differential: max. 2 bar
- Temperature stability for mixing: max. 3 K (for change in hot water temperature: 15 K)
- Locking function in the event of failure of the cold water supply
- Noise class 2
- Installation position: can be installed in any position

Material

- Housing: brass (resistant to dezincification)
- Internal parts: High-quality plastic
- Seals: EPDM
- In the functional area: polished surfaces to prevent limescale deposits

Fluids

- Heating water (VDI 2035; SWKI BT 102-01; ÖNORM H 5195-1)
- Potable water (DIN 1988-200)

Special application

- Diverting function possible (inflow via a mixing gate)
- DN 15 and DN 20 are also suitable for flow water heating units

APPROVALS / CERTIFICATES

- DVGW (UBA hygiene conformity), ACS, PZH

NOTE

The brochure „NOVAMIX ONE RANGE – NEW APPLICATIONS" contains additional information on the various applications of Taconova mixing valves.

TYPE OVERVIEW

NovaMix Value 50 FS (Fail Safe) | Thermostatic mixing valve
Temperature range 20 – 50 °C

Order no.	DN	G	Built-in check valve	A	E (l/min)	k_{VS}
253.3002.000	15	¾"	no	76	26	1.6
253.3003.000	20	1"	no	77	36	2.2
253.3004.000	25	1 ¼"	no	77	56	3.4
253.3102.000	15	¾"	yes	76	25	1.5
253.3103.000	20	1"	yes	77	35	2.1
253.3104.000	25	1 ¼"	yes	77	55	3.3

NovaMix Value 65 FS (Fail Safe) | Thermostatic mixing valve
Temperature range 45 – 65 °C (compliant with EN15092)

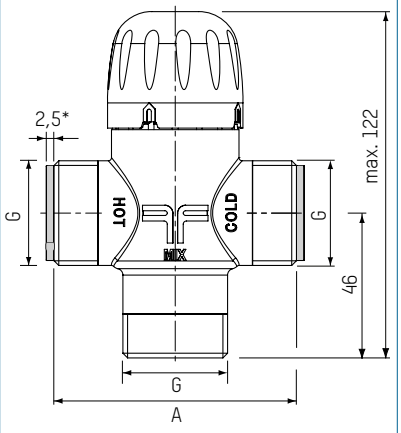
Order no.	DN	G	Built-in check valve	A	E (l/min)	k_{VS}
253.1002.000	15	¾"	no	76	26	1.6
253.1003.000	20	1"	no	77	36	2.2
253.1004.000	25	1 ¼"	no	77	56	3.4
253.1102.000	15	¾"	yes	76	25	1.5
253.1103.000	20	1"	yes	77	35	2.1
253.1104.000	25	1 ¼"	yes	77	55	3.3

NovaMix Value 70 FS (Fail Safe) | Thermostatic mixing valve
Temperature range 35 – 70 °C (75 °C for Legionella flushing)

Order no.	DN	G	Built-in check valve	A	E (l/min)	k_{VS}
253.2002.000	15	¾"	no	76	26	1.6
253.2003.000	20	1"	no	77	36	2.2
253.2004.000	25	1 ¼"	no	77	56	3.4
253.2102.000	15	¾"	yes	76	25	1.5
253.2103.000	20	1"	yes	77	35	2.1
253.2104.000	25	1 ¼"	yes	77	55	3.3

A = Housing without check valves
E = Extracted (outlet) quantity at Δp = 1,0 bar
No additional seals required when using the check valves

DIMENSIONAL DRAWING

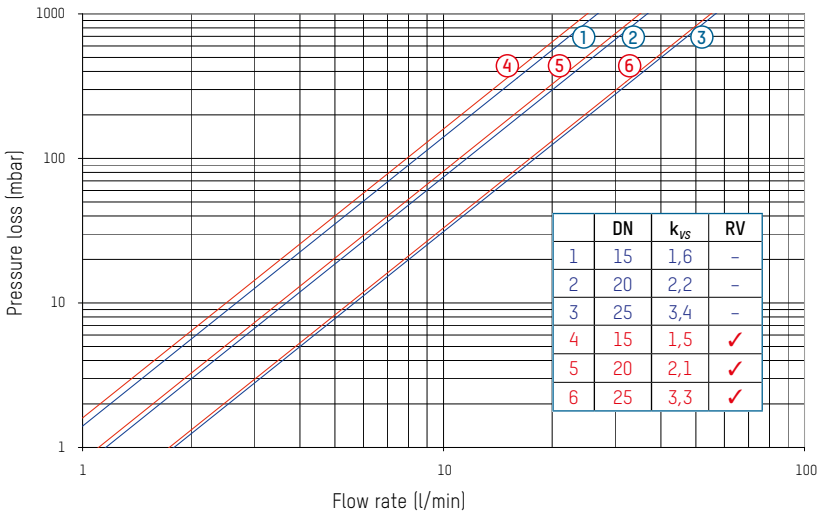


*Non-return valve

INFORMATION

If the handwheel of the mixing valves with temperature ranges of 20 – 50 C° and 35 – 70 °C is fully open, the mixing element will not work. As a result, the outlet temperature may be above the controllable temperature range and may be approximately the same as the hot water inlet temperature.

PRESSURE LOSS DIAGRAM



	DN	k_{VS}	RV
1	15	1,6	–
2	20	2,2	–
3	25	3,4	–
4	15	1,5	✓
5	20	2,1	✓
6	25	3,3	✓

ACCESSORIES

INSULATION BOX

Order no.	DN
296.2329.000	15
296.2330.000	20
296.2331.000	25

CONNECTION SET FOR THREADED PIPE

Order no.	DN	G x R
210.6630.000	15	¾" x ½"
210.6631.000	20	1" x ½"
210.6632.000	20	1" x ¾"
210.6633.000	25	1¼" x 1"
210.6630.004	15	¾" x ½"
210.6631.004	20	1" x ½"
210.6632.004	20	1" x ¾"
210.6633.004	25	1¼" x 1"

CHECK VALVE

Order no.	DN	G
296.5210.003	15	¾"
296.5211.003	20	1"
296.5212.003	25	1¼"

PRECISION THERMOMETER, QUICK RESPONSE

Fits in ½" T-piece, Indication range: 0 – 80 °C (accuracy class 2,5 within the range 40 – 60 °C), Sensor tube stainless steel, Sensor length: 39 mm

Order no.	R
278.1002.000	½"

SPARE PARTS

REGULATING PISTON WITH THERMOSTATIC ELEMENT

Order no.	Control range
298.5280.000	45 – 65 °C / 35 – 70 °C
298.5289.000	20 – 50 °C

CAP AND SPINDEL

Order no.	Control range	G
298.5281.000	45 – 65 °C	¾"
298.5282.000	45 – 65 °C	1"
298.5283.000	45 – 65 °C	1¼"
298.5284.000	20 – 50 °C / 35 – 70 °C	¾" + 1"
298.5285.000	20 – 50 °C / 35 – 70 °C	1¼"

CONTACT AND FURTHER INFORMATION TACONOVA.COM

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