

T 5867 EN

Types 3222 N/5857, 3222 N/5757-3, 3222 N/5757-7 Electric Control Valves

Single-seated Type 3222 N Globe Valve



Application

Control valves for HVAC, particularly suitable for local heat supply and large heating networks

DN 15 · PN 16

Up to 120 °C (version for treated water)¹⁾

Temperatures up to 80 °C (version for non-flammable gases)

¹⁾ For variable operated local heat supply networks or district heating networks



Fig. 1: Type 3222 N/5857 with male thread connection and soldering ends

Special features

- Single-seated globe valve
- Type 3222 N Globe Valve with male thread connection and threaded ends, welding ends or soldering ends
- Metal or soft seated
- Force-locking connection between valve and actuator

Versions

Electric control valve		
Type 3222 N/5857	PN 16	DN 15
Electric control valve with electric actuator with process controller for domestic hot water heating		
Type 3222 N/5757-3	PN 16	DN 15
Electric control valve with electric actuator with process controller for heating and cooling applications		
Type 3222 N/5757-7	PN 16	DN 15

Note

Further control valves with fail-safe action (also tested according to DIN EN 14597) are available for heating systems.

Accessories

- Threaded ends G ½, welding ends, soldering ends (di = 15 or 18 mm)
- Intermediate insulating piece (1990-1712)

Principle of operation

The medium flows through the single-seated globe valve in the direction indicated by the arrow. The position of the plug determines the flow rate across the area released between plug and valve seat.

The linear actuating force is transmitted directly over the actuator stem to the plug stem. As the actuator stem extends, the valve plug is moved in the closing direction. As the actuator stem retracts, the plug stem follows the movement of the spring in the valve.

The valve and actuator have a force-locking connection.

An intermediate insulating piece is available for insulated pipes.

Electric actuator

The Type 5857 Electric Actuator can be controlled by three-step signals or, in the version with positioner, with signals from 0/4 to 20 mA or 0/2 to

10 V. Refer to the data sheet for more details on the electric actuator:

► **T 5857:** Type 5857 Electric Actuator

Electric actuators with process controllers

Electric actuators with process controllers are a **combination of an electric actuator and a digital process controller**. The TROVIS 5757-3 Actuator is suitable for domestic hot water heating, whereas TROVIS 5757-7 is suited for heating and cooling applications. Refer to the data sheets for more details on the electric actuators with process controller:

► **T 5757:** TROVIS 5757-3 Electric Actuators with Process Controller for domestic hot water heating

► **T 5757-7:** TROVIS 5757-7 Electric Actuators with Process Controller for heating and cooling applications

Installation of the control valve

Any mounting position may be used, however, the actuator may not be installed in a suspended position.

If the control valve is to be insulated, the actuator and the coupling nut must not be insulated as well. Make sure the permissible ambient temperature is not exceeded. If necessary, an intermediate insulating piece must be used. Do not insulate it over 25 mm.

Ordering text

Control Valve Type:

☐ 3222 N/5857, ☐ 3222 N/5757-3, ☐ 3222 N/5757-7

- K_{VS} coefficient: ...
- Type of sealing: ☐ metal seal, ☐ soft seal
- Version: ☐ for treated water, ☐ for non-flammable gases

Further specifications on the electric actuator

- Control: ☐ three-step signal, ☐ positioner

Accessories

- Type of connection: ☐ threaded ends G ½, ☐ welding ends, ☐ soldering ends
- Intermediate insulating piece (1990-1712)
☐ yes, ☐ no

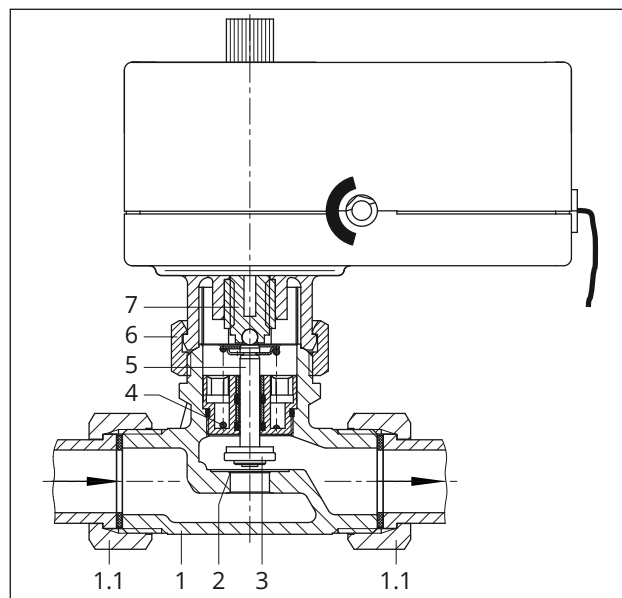


Fig. 2: Type 3222 N/5857 · Type 3222 N/TROVIS 5757-3 · Type 3222 N/TROVIS 5757-7

- | | | | |
|-----|---|---|---------------|
| 1 | Valve body | 4 | Valve spring |
| 1.1 | Male thread connection with seal and welding ends (accessories) | 5 | Plug stem |
| 2 | Seat | 6 | Coupling nut |
| 3 | Plug | 7 | Actuator stem |

Table 1: Technical data · All pressures in bar (gauge)

Single-seated Type 3222 N Globe Valve		
Nominal size		DN 15
Connection		ISO 228/1-G ¾ B
End connections (optional)		Threaded ends G ½ · Welding ends · Soldering ends
Pressure rating		PN 16
K _{VS} coefficient	Standard	2.5
	Special version	0.25 · 0.4 · 0.63 · 1 · 1.6
Valve travel		6 mm
Characteristic		Equal percentage
Pressure balancing		None
Max. permissible differential pressure Δp		6 bar
Type of sealing	K _{VS} ≤ 1	Metal seal
	K _{VS} = 1.6 and 2.5	Soft seal
Leakage class according to DIN EN 60534-4		Class I (≤ 0.05 % of K _{VS})
Conformity		CE
Max. permissible temperature		120 °C
Max. permissible medium temperature	Treated water	120 °C
	Non-flammable gases	80 °C
z value		0.43

Table 2: Materials · Material numbers according to DIN EN

Single-seated Type 3222 N Globe Valve		
Valve body		CW602N (brass)
Plug	Up to K _{VS} = 1	1.4305
	K _{VS} = 1.6; 2.5	CW617N/1.4305 with EPDM seal
Plug stem		1.4305
Seat	Up to K _{VS} = 1	CW602N (brass)
	K _{VS} = 1.6; 2.5	CW602N (brass)
Valve spring		1.4310
Seal		EPDM/FKM · Oil-resistant version: FKM
Welding ends		1.0460
Threaded ends		CW617N
Soldering ends		CC491K (red brass, Rg 5)
Intermediate insulating piece (1990-1712)		1.4305, CW617N (brass), PTFE, EPDM, FKM

Dimensional drawings

Table 3: Dimensions of control valve

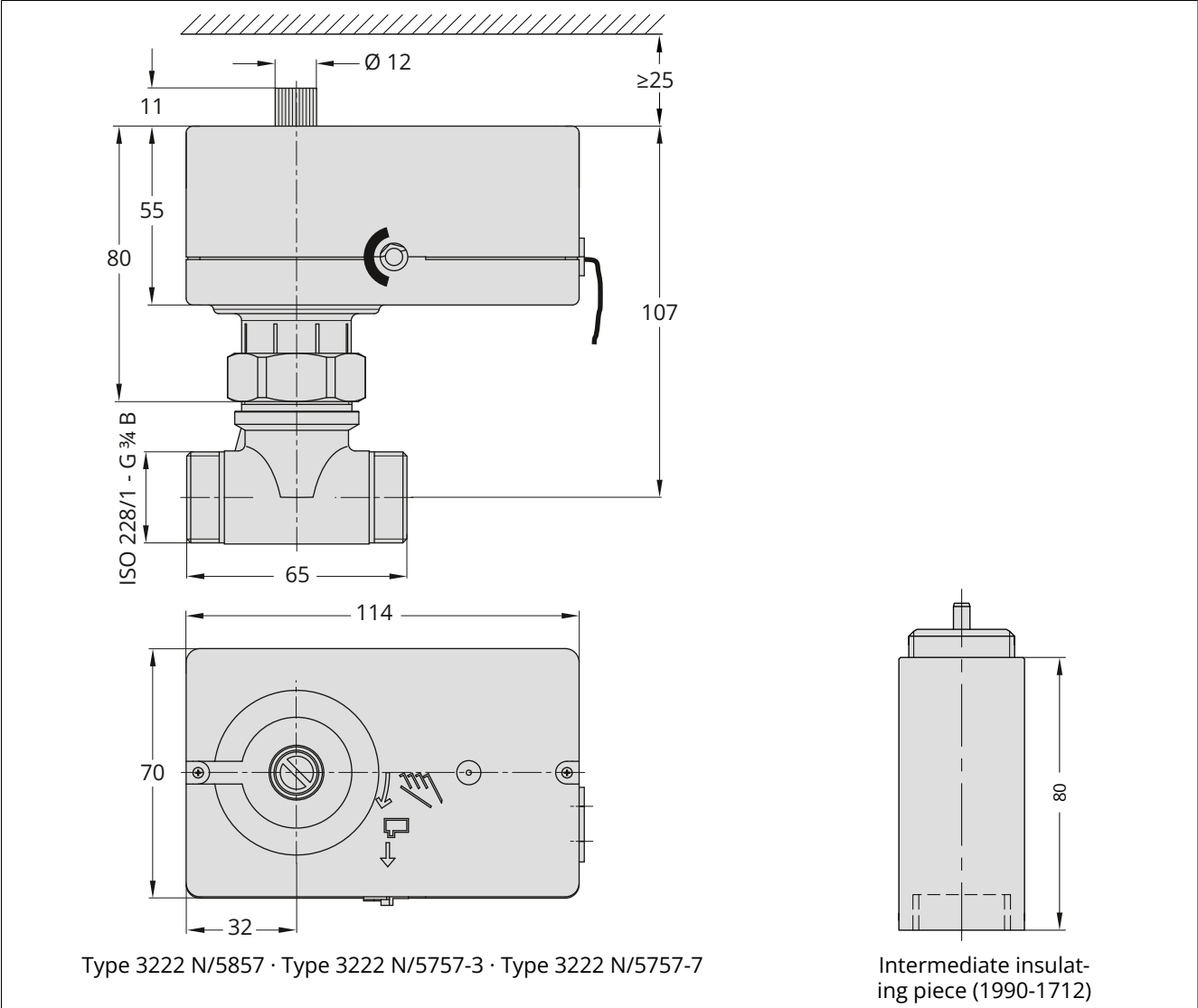


Table 4: Dimensions of valve body and weights

