

Electric Control Valve/Controller with Electric Actuator



Type 3222 N/5757

Single-seated Globe Valve Type 3222 N

Application

Control valves for heating, ventilation and air-conditioning systems, especially suitable for local heat supply and large heating networks

DN 15 · PN 16 · Version up to 120 °C¹⁾ (for treated water) · Version up to 80 °C (version for non-flammable gases)



The control valves consist of a single-seated Type 3222 N Globe Valve and a Type 5757 Controller with Electric Actuator.

Special features

- Single-seated globe valve
- Type 3222 N Valve with thread size ISO 228/1- G 3/4 B on both sides for attachment of G 1/2 threaded ends, welding ends or soldering ends
- Force-locking attachment
- Additional insulating section is available for installation in insulated pipelines

Versions

For DHW heating in instantaneous heating systems and mechanical engineering applications		
Type 3222 N/5757	PN 16	DN 15
For heating applications		
Type 3222 N/5757-7	PN 16	DN 15

Also available:

- Single-seated Type 3222 N Globe Valve with electric actuator (refer to Data Sheet T 5867 EN)
- Single-seated Type 3222 Globe Valve (DN 15 to 50) mounted on controller with electric actuator (refer to T 5766 EN)
- Single-seated Type 3222 Globe Valve (DN 15 to 50) with electric or pneumatic actuator (refer to T 5866 EN)

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

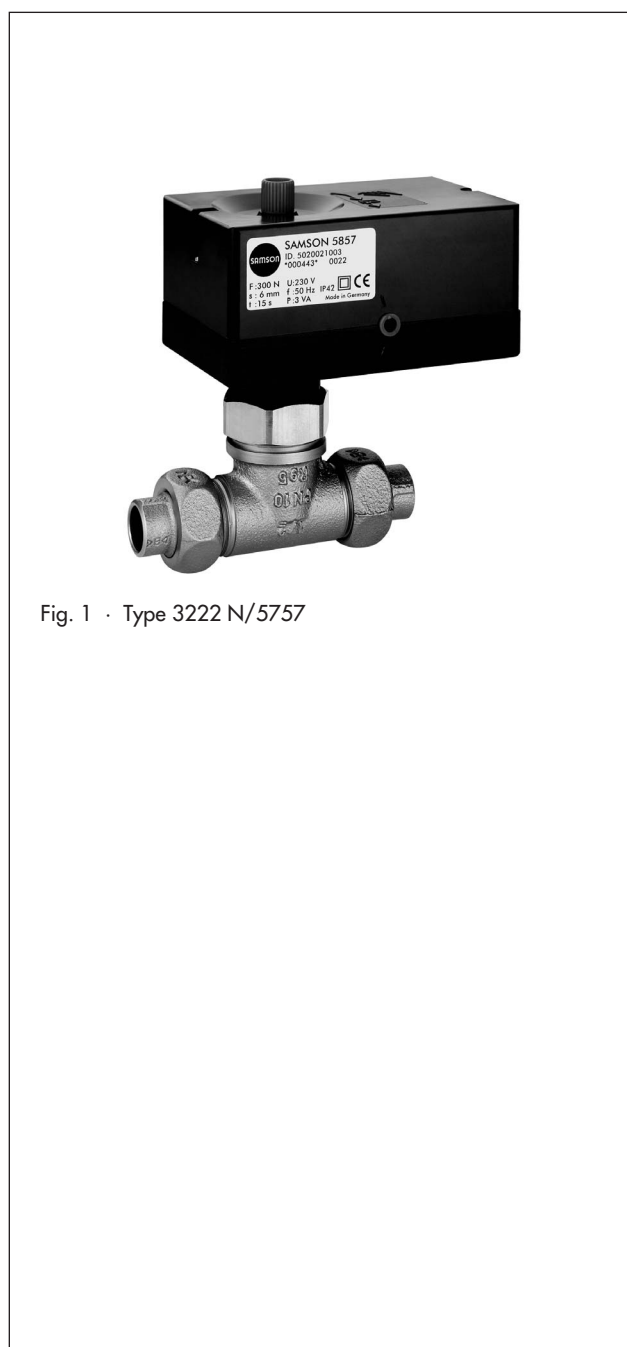


Fig. 1 · Type 3222 N/5757

Principle of operation

The actuator and valve are attached (force-locking) over a coupling nut (6). An insulating section is available for installing the valve in insulated pipelines.

The medium flows through the single-seated globe valve in the direction indicated by the arrow.

The position of the plug (3) determines the flow rate across the area released between plug and valve seat (2).

The linear actuating force is transmitted directly over the actuator stem (7) to the plug stem (5). When the actuator stem extends, the valve plug (3) moves in the closing direction. The plug stem follows the actuator stem owing to the force of the valve spring (4) as the actuator stem retracts, causing the valve to open.

Installation

Any mounting position possible, however, the following points must be observed:

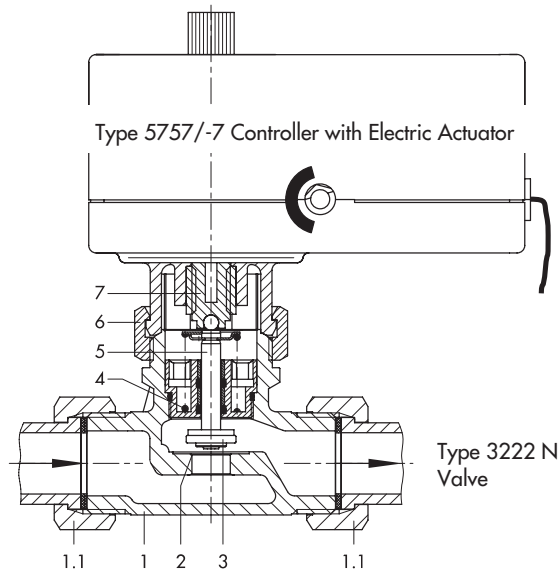
- Prior to mounting the actuator on the valve:
Retract the actuator stem.
- Do **not** mount actuator suspended!
- If the control valve is to be insulated, use an insulating section.
Do **not** insulate the actuator and the coupling nut!
- Observe maximum permissible ambient temperature range!

Ordering text

Electric Control Valve/Controller with Electric Actuator
Type 3222 N/5757-7, Type 3222 N/5757
DN 15, PN 16

Accessories:

Pair of G ½ threaded ends/pair of welding ends/
pair of soldering ends (15 or 18 mm inside diameter)
Insulating section



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

Fig. 2 · Functional diagram of Type 3222 N/5757

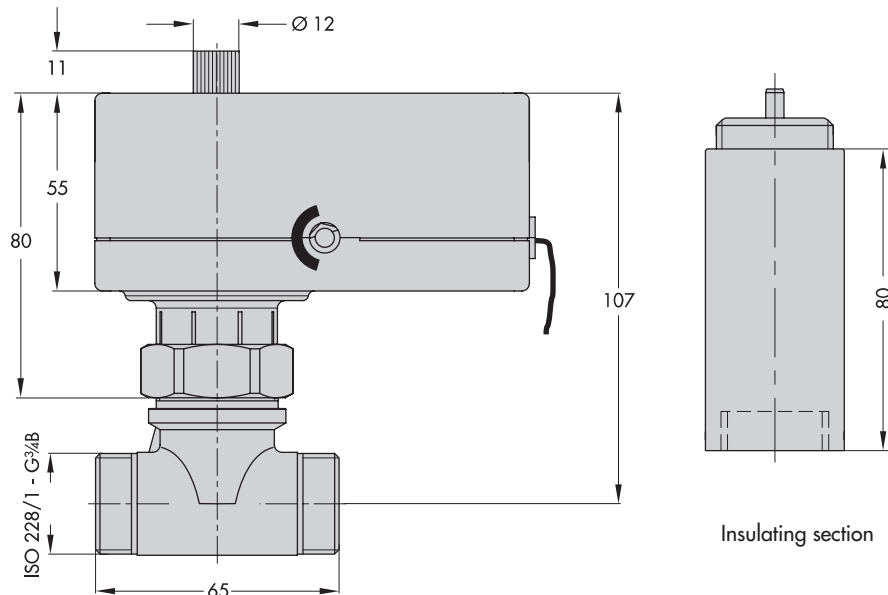
Table 1 · Technical data · All pressures in bar (gauge)

Type 3222 N Globe Valve	
Nominal size	DN 15
Connection	ISO 228/1-G ¾ B
Type of connection (optional)	Threaded ends G ½ · Welding ends · Soldering ends
Nominal pressure	PN 16
K _{V5} coefficient	2.5
Standard version	0.25 · 0.4 · 0.63 · 1 · 1.6
Special version	
Valve travel	6 mm
Characteristic	Equal percentage
Pressure balancing	None
Max. perm. differential pressure Δp	6 bar
Type of sealing	
K _{V5} ≤ 1	With metal sealing
K _{V5} = 1.6 and 2.5	With soft sealing
Leakage rate (Class I acc. to DIN EN 60534)	< 0.05 % of K _{V5}
Max. perm. temperature	120 °C
Max. perm. medium temperature	
Treated water	120 °C
Non-flammable gases	80 °C
z value	0.43

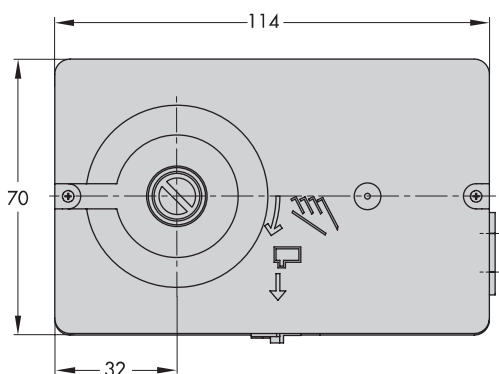
Table 2 · Materials · Material number acc. to DIN EN

Type 3222 N Valve		
Valve body	CW602N (brass)	
Plug	Up to K _{V5} = 1	1.4305
	K _{V5} = 1.6, 2.5	1.4305 with EPDM sealing ring
Plug stem	1.4305	
Seat	Up to K _{V5} = 1	1.4305
	K _{V5} = 1.6, 2.5	CW602N (brass)
Valve spring	1.4310 K	
Welding ends	1.0254 (St 37)	
Threaded ends	Brass	
Soldering ends	CC491K (red casting brass, Rg 5)	
Insulating section	1.4305, CW617N (brass), PTFE, EPDM, FPM	
Types 5757/-7 Controller with Electric Actuator		
Housing	Plastic (PPO)	
Coupling nut	Brass	

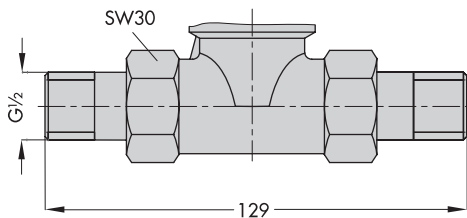
Dimensions in mm



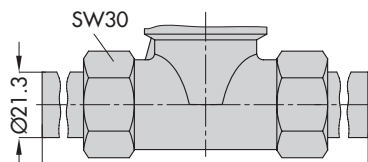
Insulating section



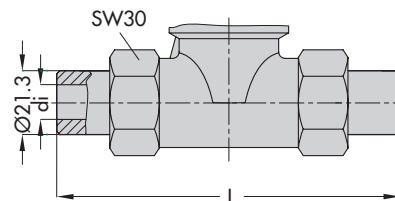
Type 3222 N/5757, 3222 N/5757-7



Version with threaded ends



Version with welding ends



Version with soldered ends

Weight

Valve body without actuator: 0.3 kg

With actuator: 0.5 kg

Soldering ends Dimensions in mm

Inside Ø	15	18
Length L	107	103

Fig. 3 · Dimensions and weights

Specifications subject to change without notice.



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