

T 2176 EN

Series 43 Self-operated Temperature Regulators

Accessories: Double adapter · Manual adjuster · Intermediate insulating piece



Application

Temperature regulators with double adapter to mount additional control thermostats for the use of other controlled variables.

Temperature regulators with manual adjuster to override the control process. Temperature regulators with intermediate insulating piece for temperatures down to $-15\text{ }^{\circ}\text{C}$

Connection to **globe and three-way valves G 1/2 to G 1** · DN 15 to 50 · Pressure rating **PN 25**

Double adapter, manual adjuster and intermediate insulating piece in combination with Series 43 Temperature Regulators

Double adapter Do3

Mounted between valve and control thermostat. The adapter is suited to attach a maximum of two control thermostats or control units. One of the connections may be used to attach a manual adjuster. In all combinations, the largest signal is always used to control the regulator.

Manual adjuster Ba43

For the manual operation of the valve. The manual adjuster (Fig. 2) can either be attached directly to the valve instead of a control thermostat or to the double adapter Do3 at connection b.

Intermediate insulating piece Ba43

For installation with process media down to $-15\text{ }^{\circ}\text{C}$. The intermediate insulating piece can be mounted between the valve and control thermostat or between the valve and manual adjuster.

Versions

Double adapter (Fig. 1) · Connection **a** with a coupling pin bushing; Connection **b** and **c** for attaching a control thermostat or other control devices (e.g. a manual adjuster).

Combined differential pressure, (flow) and temperature regulators are available fitted with a double adapter. Refer to Data Sheet ▶ T 3132.

Manual adjuster (Fig. 2) connected directly at the valve, for the manual operation of the valve.

Intermediate insulating piece mounted between the valve and control thermostat or manual adjuster.

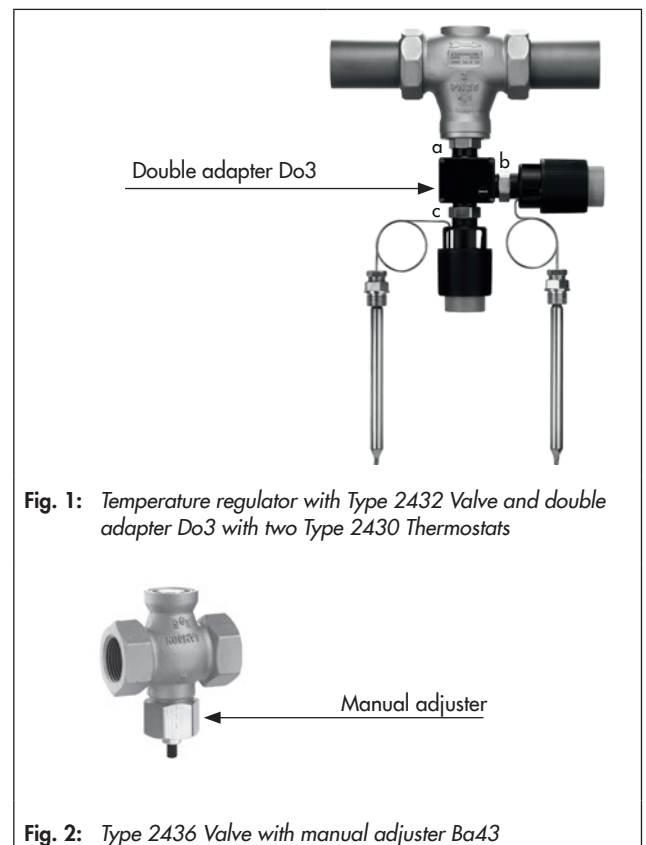


Table 1: Materials · Material numbers according to DIN EN

Double adapter Do3	
Body	PTFE, glass fiber reinforced
Coupling pin	Stainless steel 1.4104
Manual adjuster Ba43	
Body	CW509 (brass)
Threaded pin	S275JR (St 44-2)
Lock nut	1.4301
Intermediate insulating piece Ba43	
Intermediate piece	1.4305, CW617N, PTFE, EPDM, FKM

The permissible ambient temperatures of the valves, thermostats and actuators also apply to the devices fitted with double adapter and/or manual adjuster.

Table 2: Weights in kg

Weights	
Double adapter Do3	Approx. 0.2 kg
Manual adjuster Ba43	
Intermediate insulating piece Ba43	

Double adapter Do3 with manual adjuster Ba43 (Fig. 4) to close the valve manually or to limit the valve travel · Connection **c** for control thermostat, connection **b** for manual adjuster.

Principle of operation (Fig. 3 to Fig. 5)

The **double adapter** is mounted between the valve (1) and control thermostat (5) in temperature regulators. An additional control thermostat (Fig. 4) is attached to connection **b** and **c**. The manual adjuster must be mounted to connection **b**.

The travel of the mounted unit acts directly (connection **c**) or over the lever (3, connection **b**) on the coupling pin (4). It moves the plug stem (2) and plug. The unit with the largest stroke is always linked to the plug stem. As a result, the manual adjuster (Fig. 4) acts as a travel stop.

In the double temperature regulator shown in Fig. 1, the control thermostat attached to connection **b** can be used to control the flow temperature and the second thermostat to limit the return flow temperature, for example.

Manual adjuster (Fig. 5)

The threaded pin (8) acts on the plug stem (2) of the valve. Turning the threaded pin (8) changes the plug position which determines the flow rate of the heat transfer medium. The setting is locked with the lock nut (7).

Intermediate insulating piece (Fig. 6)

Mounted between the valve and control thermostat or manual adjuster at low medium temperatures (down to -15 °C).

Applications

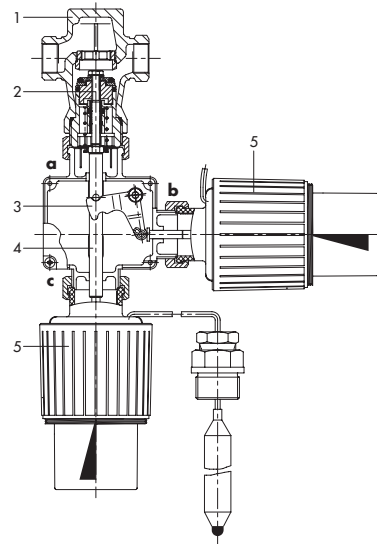


Fig. 3: Type 2431 Valve and double adapter Do3 with two Type 2430 Thermostats

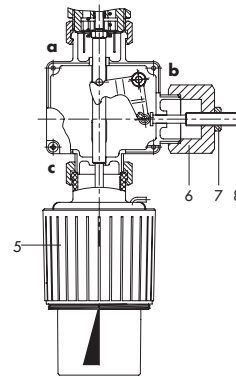


Fig. 4: Double adapter Do3, Type 2430 Thermostat and manual adjuster

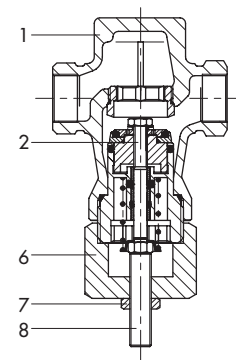


Fig. 5: Type 2431 Valve with manual adjuster

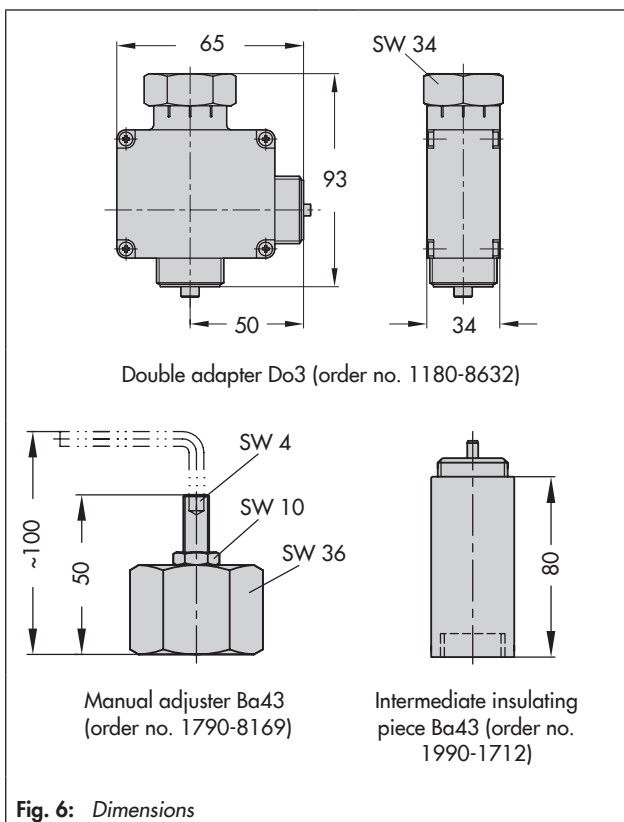
- | | | | |
|---------|--------------|---|--------------------|
| a, b, c | Connections | 5 | Control thermostat |
| 1 | Valve | 6 | Manual adjuster |
| 2 | Plug stem | 7 | Lock nut |
| 3 | Lever | 8 | Threaded pin |
| 4 | Coupling pin | | |

Table 3: Versions with double adapter/manual adjuster · Technical data according to the listed data sheets

Type ... Valve	2431	2432	2433	2435	2436	2437	
Globe valve	•	•		•	•	•	
Three-way valve			•				
Can be equipped with ...	Type 2430 Control Thermostat						
Thread size G · Female thread							
Body material	CC499K	G ½ to G 1	-	G ½ to G 1		-	
	1.4408			-	G ½ to G 1		
Valve size DN ¹⁾ · Male thread · Flange							
Body material	CC499K	-	DN 15 to 50		-	DN 32 to 50	
	EN-GJS-400-18-LT		DN 15 to 50	-		DN 15 to 50	DN 15 to 50
	1.4408		DN 15 · DN 25			DN 15 · DN 25	-
Data Sheet	▶ T 2171		▶ T 2173		▶ T 2172		

¹⁾ Standard version with welding ends (with threaded ends on request)

Dimensions



Ordering text

Double adapter Do3 (order no. 1180-8632)

Manual adjuster Ba43 (order no. 1790-8169)

Intermediate insulating piece Ba43 (order no. 1990-1712)

