

Self-operated Temperature Regulators

Series 43 Accessories

Double Adapter Do3 K · Manual Adjuster



Application

Accessories for Series 43 Temperature Regulators
For connection to globe valves and three-way valves

Sizes 1/2" to 2" (15 to 50 mm) · ANSI Class 250

Double adapter Do3 K and manual adjuster in combination with Series 43 Temperature Regulators

Temperature regulators with a **double adapter** for attaching additional thermostats to allow the control of further variables.

Temperature regulator with a **manual adjuster** for manual intervention into the control process.

Features

• Double adapter Do3 K

Installation between valve and thermostat. It is suitable for attaching two thermostats or control devices at the maximum. This includes the use of one connection point for the attachment of the manual adjuster. In all combinations, the largest signal actuates the valve during operation.

• Manual adjuster

For the manual operation of the regulating valve. The manual adjuster can either be attached directly to the regulating valve instead of a thermostat or to the double adaptor Do3 K at connection "b".

Table 1 · Versions with double adapter/manual adjuster
Technical data can be found in the data sheets listed

Valve Type...	2431 K	2432 K	2433 K	2435 K	2436 K	2437 K
Globe valve	•	•		•	•	•
Three-way valve			•			
Female-NPT threaded sizes	1/2" to 1"	–	NPT 1/2" to 1"			–
Union connection sizes ¹⁾	–	1/2" to 2"		–	1 1/4 to 2	1/2 to 2
	–	15 to 50 mm		–	32 to 50	15 to 50
Data Sheet T ...	2175		2177	2174		
Equipped with	Type 2430 K Control Thermostat					

¹⁾ Normal version with welding or threaded ends available

Versions

Double adapter Do3 K (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 regulators with double adapters to control the differential pressure, (flow) and temperature are available. Details can be found in Technical Data Sheet T 3132.

Double adapter Do3 K with Manual adjuster (Fig. 4) · To manually close the valve or to limit its travel · Connection "c" for thermostat, connection "b" for manual adjuster.

Manual adjuster (Fig. 2) directly attached to the valve · For the manual operation of the valve.

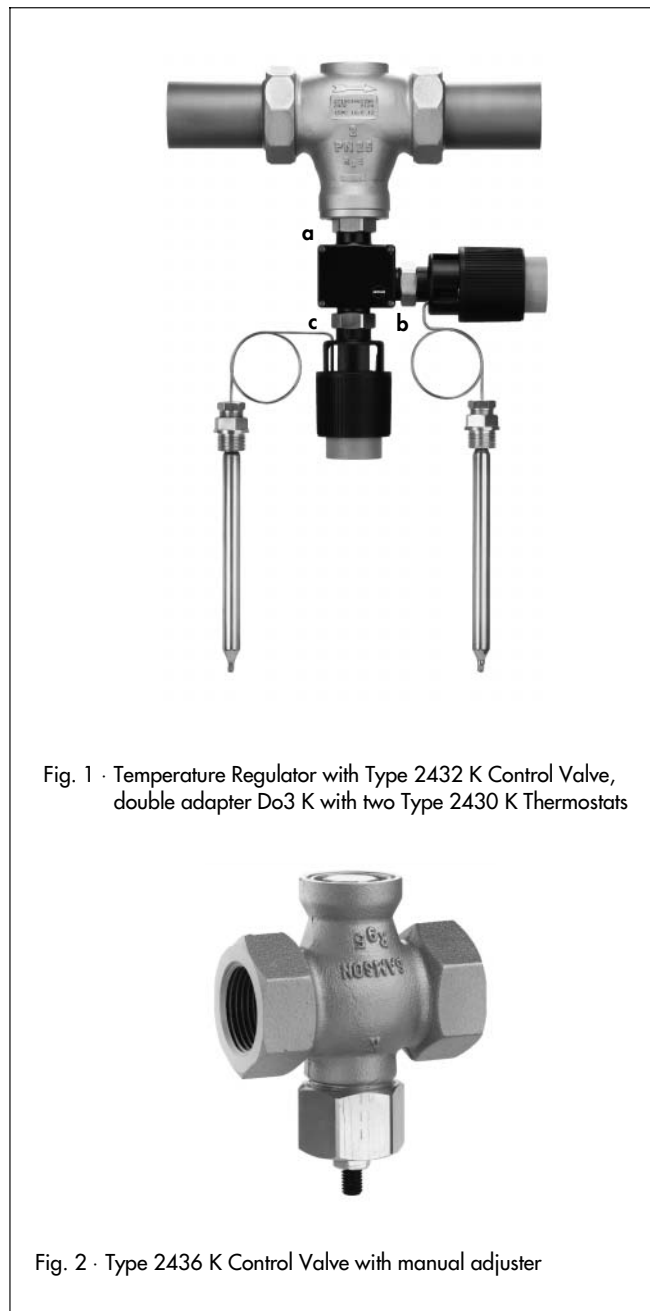


Fig. 1 · Temperature Regulator with Type 2432 K Control Valve, double adapter Do3 K with two Type 2430 K Thermostats



Fig. 2 · Type 2436 K Control Valve with manual adjuster

Principle of operation (Figs. 3, 4 and 5)

The **double adapter** is mounted to the temperature regulator between the control valve (1) and control thermostat (5). Additional control thermostats can be mounted to connections "b" and "c" (Fig. 4). The manual adjuster is attached at the connection "b".

The travel of the mounted unit acts directly (connection "c") or via the lever (3) (connection "b") on the coupling pin (4). This pin moves the plug stem (2) and the plug. The plug stem is coupled to the unit which has the largest travel. The manual adjuster (Fig. 4) limits the travel.

In the double temperature regulator shown in Fig. 1, the thermostat attached to connection "b" can control the flow temperature and the second thermostat can limit the return flow temperature.

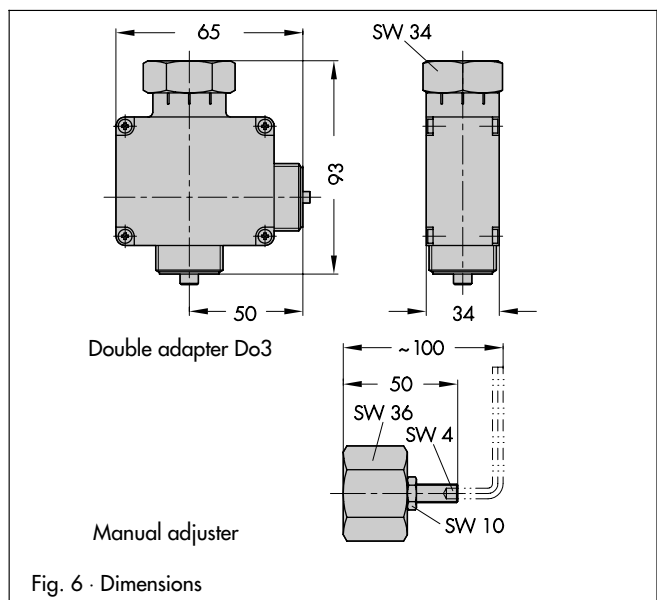
Manual adjuster (Fig. 5) - directly attached to the valve

The threaded pin (8) acts on the plug stem (2) of the control valve. By turning the threaded pin (8), the plug's position, which determines the flow rate of the heat transfer medium, is changed.

Table 2 · Technical data · Materials · Weights · Dimensions

The permissible ambient temperatures for the control valves, thermostats and actuators are also valid for these devices with double adapter and/or manual adjuster.

Materials	
Double adapter	
Body	Glass fibre-reinforced PETP
Coupling pin	Stainless steel AISI 430F (WN 1.4104)
Manual adjuster	
Body	Brass (CuZnPb2)
Threaded pin	AISI 1020 (St 45)
Lock nut	AISI 304 (WN 1.4301)
Weight, approx. in lb (kg)	
Double adapter Do3 K	0.4 (0.2)
Manual adjuster	0.4 (0.2)



This adjustment can be fixed by turning the lock nut (7).

Specifications subject to change without notice.

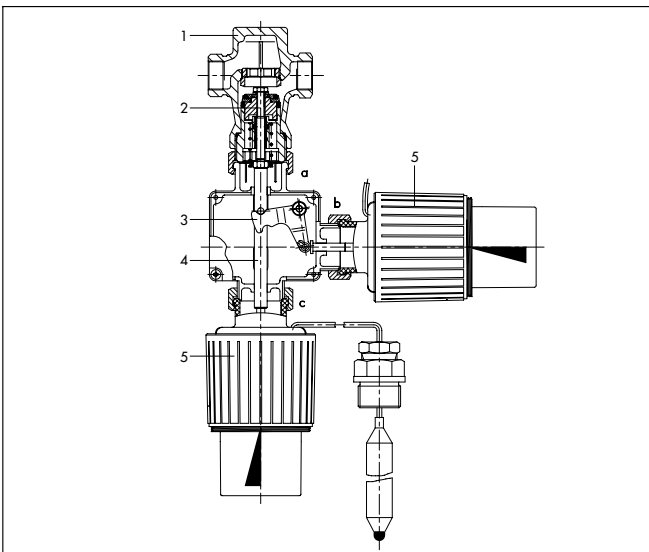


Fig. 3 · Type 2431 K Valve and double adapter Do3 K with two Type 2430 K Thermostats

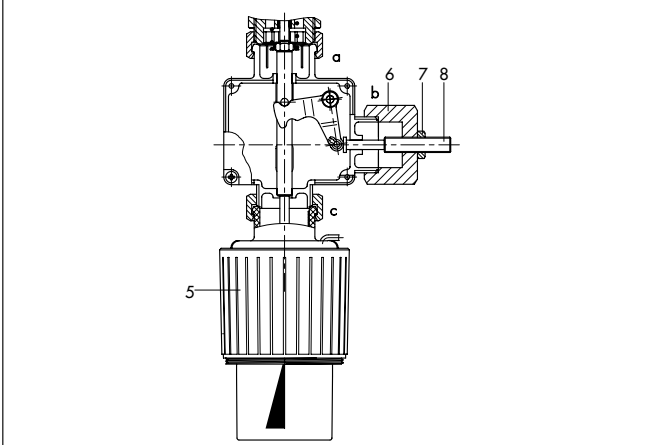


Fig. 4 · Double adapter Do3 K, Type 2430 K Thermostat and manual adjuster

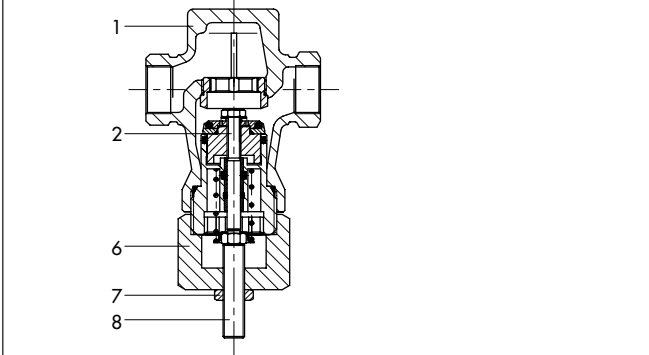


Fig. 5 · Type 2431 K Valve with manual adjuster

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



SAMSON CONTROLS INC.
1 - 105 Riviera Drive
Markham · Ontario · Canada · L3R 5J7
Tel. (905) 474-0354 · Telefax (905) 474-0998

SAMSON CONTROLS INC.
4111 Cedar Boulevard
Baytown · Texas · USA · 77520
Tel. (281) 383-3677 · Telefax (281) 383-3690

T 2176

T2176 CA