

T 2036 EN

Double adapter Do2, DoS2

Manual adjuster Ma, MaS for temperature, differential pressure and flow regulators



Application

Suitable for temperature, differential pressure and flow regulators · **Double adapter Do2** for attachment of an additional thermostat · **Double adapter DoS2** and indication of valve's closed position by a momentary-contact switch
Manual adjuster Ma with double adapter and manual override · **Manual adjuster MaS** with double adapter, manual override and indication of valve's closed position by a momentary-contact switch

Double adapter Do2

- **Type 1, Type 4** and **Type 9** Temperature Regulators mounted between a Type 2111, 2422 or 2119 Valve and the control thermostat.
- **Type 42-24** and **Type 42-28** Differential Pressure Regulators as well as **Types 42-34, 42-36, 42-37, 42-38** and **42-39** Differential Pressure and Flow Regulators mounted between a Type 2422 or 2423 Valve and the diaphragm actuator.

In both cases, the double adapter additionally allows a Type 2231 to Type 2235 Thermostat or a Type 2213 Safety Thermostat to be connected. The largest signal is always used to control the regulator.

Double adapter Do2 and manual adjuster Ma

The double adapter and the manual adjuster have a mechanical travel indicator which shows the valve plug position on a scale.

Double adapter DoS2

The double adapter additionally has a momentary-contact switch which issues a signal to alarm equipment when the valve closes.

Manual adjuster Ma

A manual adjuster (see Fig. 5) is used with a Do2 in place of the second connection of a thermostat.

In this case, only one control thermostat can be connected.

Manual adjuster with momentary-contact switch MaS

The manual adjuster additionally has a momentary-contact switch which issues a signal to alarm equipment when the valve closes.

Typetested regulators

Typetested regulators with double adapters, e.g. temperature limiters (TL), are available · Details in Information Sheet

► T 2040

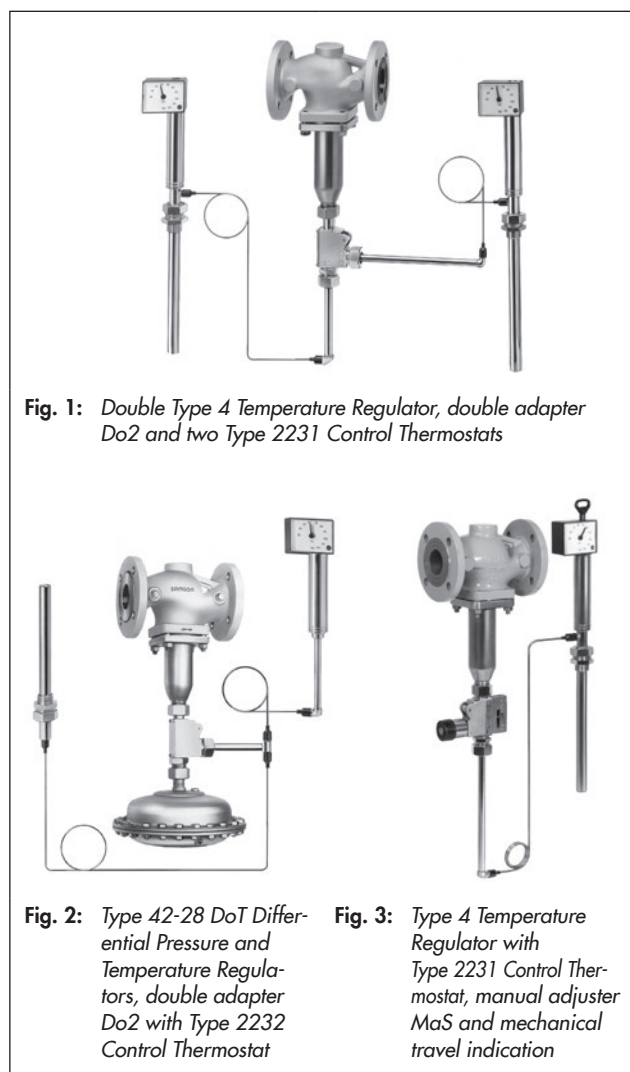


Fig. 1: Double Type 4 Temperature Regulator, double adapter Do2 and two Type 2231 Control Thermostats

Fig. 2: Type 42-28 DoT Differential Pressure and Temperature Regulators, double adapter Do2 with Type 2232 Control Thermostat

Fig. 3: Type 4 Temperature Regulator with Type 2231 Control Thermostat, manual adjuster MaS and mechanical travel indication

Principle of operation

The double adapter Do2 is mounted between the valve and control thermostat or diaphragm actuator.

The additional control thermostat is attached to connection c. The travel of the mounted unit is directly transferred (connection b) or over the lever (6) to the coupling pin (5) and plug stem (10.1) of the valve. The unit with the largest stroke is coupled to the plug stem. The indicator (5.1) fixed to the coupling pin (5) indicates the travel.

The manual adjuster Ma is mounted at connection c (thermostat connection, see Fig. 5). Turning the handwheel (8.1) causes the coupling pin (8.2) to extend or retract. As a result, it acts over the lever (6) on the coupling pin (5) and plug stem (10.1).

In the double adapter or manual adjuster with momentary-contact switch (DoS2, MaS), a microswitch (9.1) is located in an additional housing. In the valve's closed position, the switch is actuated by the coupling pin fixed to the indicator (5.1). The switching point can be finely adjusted at the adjustment screw (9.2).

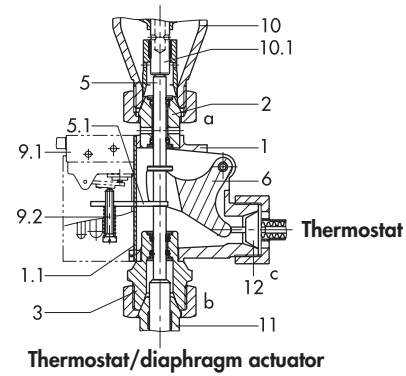
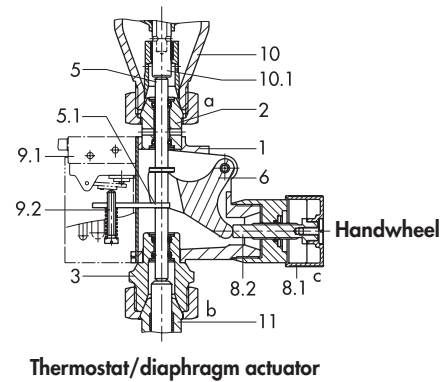


Fig. 4: Double adapter Do2, double adapter with momentary-contact switch DoS2



Electric momentary-contact switch - Wiring diagram

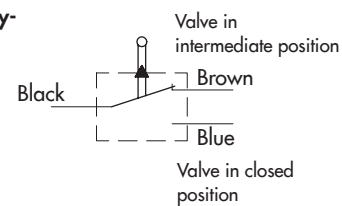


Fig. 5: Manual adjuster Ma, manual adjuster with momentary-contact switch MaS

Table 1: Further information

Temperature regulators	Data sheet
Type 1	► T 2111
Type 4	► T 2121
Type 9	► T 2133
Types 2231, 2232, 2234, 2235 and 2213 Control Thermostats	► T 2010
Differential pressure and flow regulators	
Type 42-24 DoT, Type 42-28 DoT, Type 42-36 DoT, Type 42-37 DoT, Type 42-39 DoT, Type 42-34 DoT, Type 42-38 DoT, Type 42-36 DoT E	► T 3019

1	Body	9.1	Microswitch
1.1	Cover plate	9.2	Adjustment screw
2	Connection G 1	10	Valve
3	Stopper for connection G 1	10.1	Valve plug stem
5	Coupling pin	11	Control thermostat/actuator
5.1	Indicator	12	Additional thermostat to connection c
6	Lever	a	Connections
8	Manual adjuster	b	
8.1	Handwheel	c	
8.2	Coupling pin		
9	Momentary-contact switch		

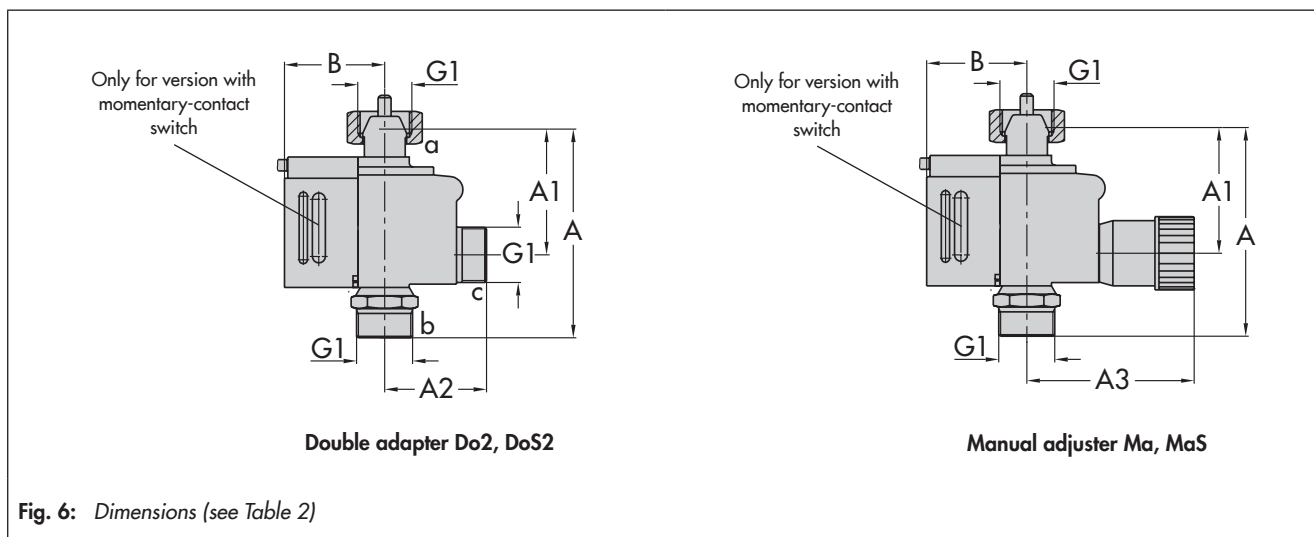


Table 2: Dimensions in mm · Weights · Technical data · Materials

Version	Double adapter				Manual adjuster			
	Do2		DoS2		Ma		MaS	
For DN 15 to 100	•		•		•		•	
For DN 125 to 250		•		•		•		•
Dimension A	128	172	128	172	128	172	128	172
Dimension A1	77	115	77	115	77	115	77	115
Dimension A2	62	88	62	88	–	–	–	–
Dimension A3	–	–	–	–	100	125	100	125
Dimension B	60	75	60	75	60	75	60	75
Weight, approx. kg	1.1	1.8	1.5	2.3	1.5	2.3	1.8	2.6
Perm. temperature	0 to 130 °C							
Electric momentary-contact switch								
Permissible load	230 V~, 10 A with resistive load							
Materials · Material numbers according to DIN EN								
Body	Brass CW604N, nickel-plated							
Coupling pin	Stainless steel 1.4301							
Seal	EPDM seal between PTFE disks							

Table 3: Order numbers

Designation	Valve size	Medium: water	Medium: oil
Double adapter Do2	DN 15 to 100	1080-4394	– ¹⁾
	DN 125 to 250	1180-0943	1380-0129
Double adapter with momentary-contact switch DoS2	DN 15 to 100	1180-6523	– ¹⁾
	DN 125 to 250	1180-6527	– ¹⁾
Double adapter with manual adjuster Ma	DN 15 to 100	1180-6507	– ¹⁾
	DN 125 to 250	1180-6508	– ¹⁾
Double adapter with manual adjuster and momentary-contact switch MaS	DN 15 to 100	1180-6521	– ¹⁾
	DN 125 to 250	1180-6525	– ¹⁾

¹⁾ On request

