Instructions *Ministat/Ambistat/Galvanostat 624/634, 645/650, 664*

Datasheets

624/634

www.trafag.com/H72184

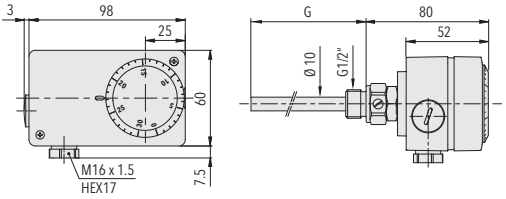
645/650

www.trafag.com/H72170

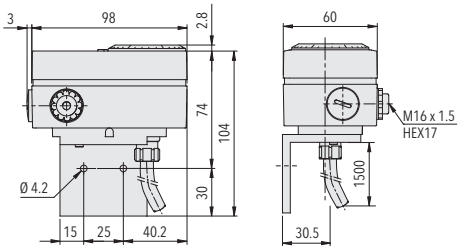
664

www.trafag.com/H72175

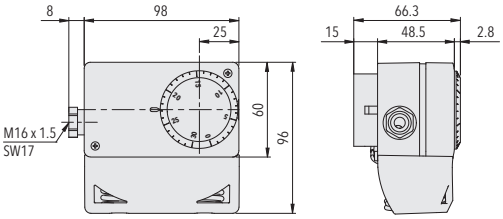
Ministat 624/634



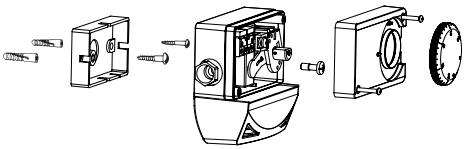
Galvanostat 664



Ambistat 645/650



Mounting Ambistat 645/650



Switchpoint ranges

Product	Code	Range [°C]	Sensor temperature max. [°C]	Storage temperature [°C]	Ambient temperature [°C]
624/634	**01**	–30 ... +40	45		–30 ... +70*
	09	0 ... +35	50		–30 ... +70*
	31	+20 ... +150	165		–30 ... +70*
	24	+20 ... +230	250		–30 ... +70*
	53	+40 ... +300	330		–30 ... +70*
	54	+70 ... +350	380	–20 ... +40	–30 ... +70*
624/634	**94**	–10 ... +35	70		–30 ... +70*
664	**95**	–10 ... +80	85		–30 ... +70*
	20	+5 ... +95	105		–30 ... +70*
	23	+20 ... +110	115		–30 ... +70*
664	**22**	+10 ... +55	85	–20 ... +40	–30 ... +70*
645/650	**02**	–30 ... +30			–30 ... +40
	03	0 ... +30			–30 ... +50
	04	+10 ...+40		–20 ... +40	–30 ... +70
	12	0 ... +60			–30 ... +70
	14	–5 ... +50			–30 ... +70

* Important: Temperature at sensor may not exceed maximum sensor temperature!

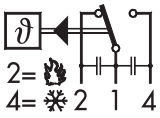
Electrical data switch

Electrical ratings see on type plate!

Type	Rating Resistive Load (Inductive Load) AC	DC
10	125 V, 10 (1.5) A 250 V, 10 (1.25) A	250 V, 0.2 (0.02) A 125 V, 0.4 (0.03) A 30 V, 2 (1) A 14 V, 15 (2.5) A
11	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.25 (0.03) A 125 V, 0.5 (0.05) A 30 V, 6 (1.5) A 14 V, 15 (1.5) A
12	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.3 (0.2) A 125 V, 0.75 (0.4) A 30 V, 15 (1.5) A 14 V, 15 (1.5) A

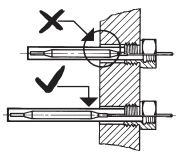
Type	Rating Resistive Load (Inductive Load) AC	DC
21	24 V, 0.1 (0.1) A 12 V, 1 (1) A 5 V, 2 (2) A	24 V, 0.1 (0.1) A 12 V, 1 (1) A 5 V, 2 (2) A
24	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.3 (0.2) A 125 V, 0.75 (0.4) A 30 V, 15 (1.5) A 14 V, 15 (1.5) A
25	125 V, 15 (1.5) A 250 V, 15 (1.25) A 500 V, 10 (0.75) A	250 V, 0.25 (0.03) A 125 V, 0.5 (0.05) A 30 V, 6 (1.5) A 14 V, 15 (2.5) A

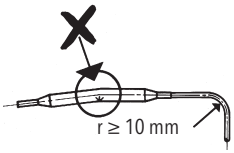
Electrical connections



Terminal 1 : Entry phase
Terminal 2 : Exit phase - heating
Terminal 4 : Exit phase - cooling

Mounting of sensor and protection tube

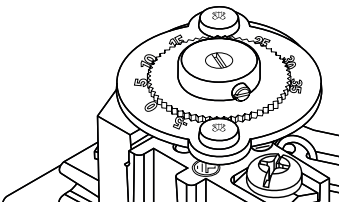




When the protection tube is filled with silicone-oil for improving the heat transfer, pay attention to the dilatation of oil!

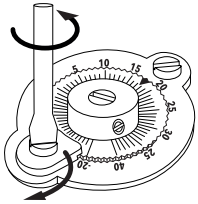
Adjustment of switch point

1. Immerse sensor in calibrated bath or dry block.
   Set environmental conditions for capillary tube similar to target application.
2. Wait approx. 1 hour to ensure constant condition of sensor, capillary tube and housing.
3. Adjust switchpoint (release switchpoint locking befor adjusting). Increasing switchpoint: slowly turn set point screw clockwise from lower to higher temperatures until the microswitch clicks. Decreasing switchpoint: slowly turn set point screw counter-clockwise from higher to lower temperatures until the microswitch clicks.
4. In case the indicated temperature on the dial differs too much from the set temperature, the dial can be adjusted according page 3 of this instruction.
   (online version only, www.trafag.com/H73624)



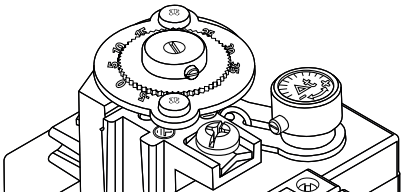
Release of switchpoint locking

To adjust the switch point, the switchpoint locking must be released before turning the set point screw. After completing the adjustment, the switchpoint must be locked again.



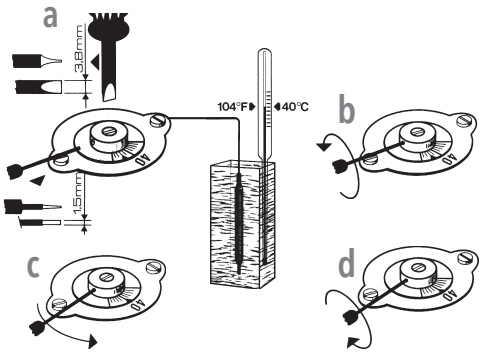
Adjustable switching differential

The differential can be set by turning the knurled knob on the operating lever. The knurled knob is equipped with a scale. Turning to the left (direction of arrow +) increases the differential. Turning to right (direction of arrow –) decreases the differential. The adjustment of the differential only affects the lower switchpoint, the upper switch point remains unchanged.



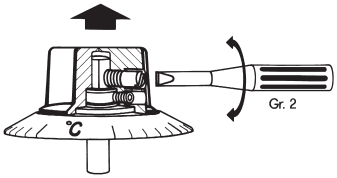
Adjustment of switchpoint indicator scale

Instruments with internal setpoint adjustment

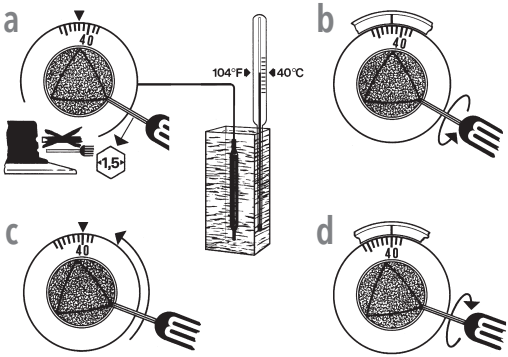


Instruments with external setpoint adjustment

1. Release the setpoint knob



2. Adjust the scale based on a reference temperature



3. Fix the setpoint know again