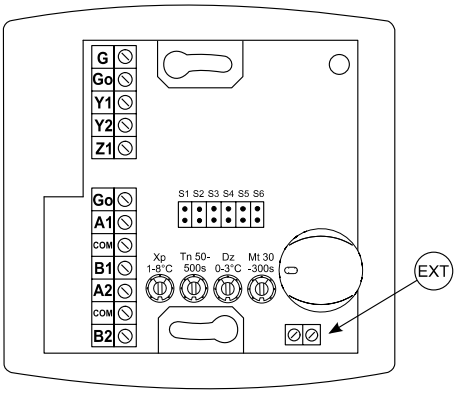
Coding by using jumpers

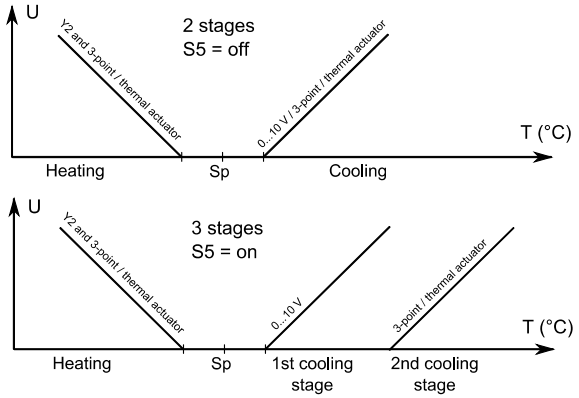
S1	● ●	0…10 V *	direct output to the cooling actuator
	■	10…0 V	reverse output to the cooling actuator
S2	● ●	0…10 V *	direct output to the heating actuator
	■	10…0 V	reverse output to the heating actuator
S3	● ●	PI *	control mode (PI controller)
	■	P	control mode (P controller)
S4	● ●	3-point motor	actuator type selection
	■	thermal actuator *	
S5	● ●	1-stage cooling	number of cooling stages
	■	2-stage cooling *	
S6	● ●	I first	Y1 (0…10 V) cooling output works first
	■	II first *	3-point/thermal actuator cooling output works first

* = Factory setting

Wiring terminals, trimmers, coding

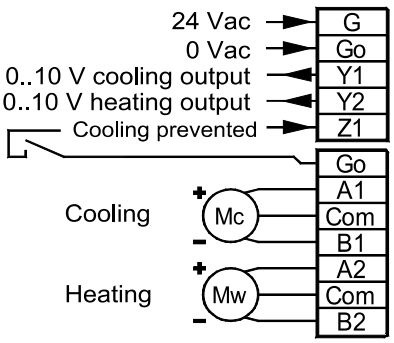


Stages

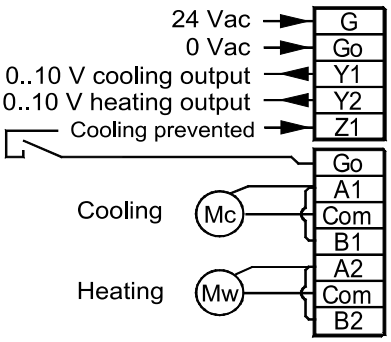


Connecting actuators

3-point and 0…10 V actuators



Thermal actuators and 0..10 V actuators



Things to be taken into account during commissioning

1. While changing trimmer positions or other settings, the setting values are shown on the HLS 33-N display (a display can be connected also temporarily for the commissioning procedure)
2. When the 3-point output is in the control area edge, the output is driven against the edge for 5 seconds every 5 minutes
3. After a power failure, the 3-point output is driven for 1,5 x running time to close the valve and to determine the position
4. If the cooling is prevented but the cooling is still needed, the green indicator light flashes every 30 seconds

NOTE: Block the air flow coming through the cable protection tubes.

Changing the set point potentiometer midpoint

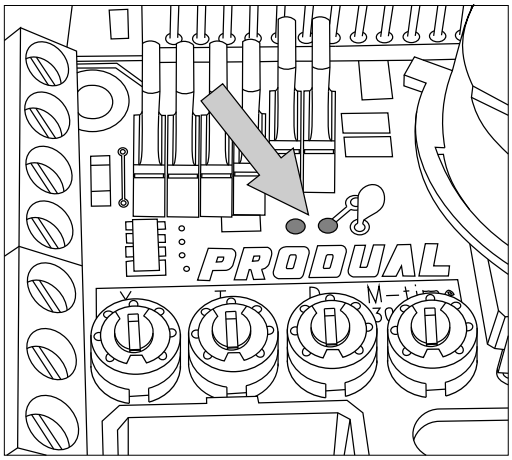
The potentiometer midpoint range is 18…24 °C.

NOTE: It is useful to fit a display to HLS 33 models during the potentiometer midpoint setting. The display can be removed after the setting is done.

1. Make sure the device is connected to supply voltage.
2. Remove the device cover.
3. Turn the potentiometer to the position where the 21 °C set point is wanted to be.
4. Connect the soldering points shown on the figure for a while.

   Use e.g. a screw driver for connecting.

Do not touch any other components



The midpoint changing is successful when 21.0 °C starts flashing on the display.