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Analog electronic - two-point (or three-point) temperatur regulator QDR-2 Operating instructions

Installation:

Install the regulator into an operating panel, fasten it with the 2 screws on the left and right side. Then connect the electric wirings. Attention about the polarity for the thermocouple wiring. Power supply 230 Volts ac. For using with a power of 115 Volts ac, open the regulator and change the electric bridge.



Warning: Installation: Qualified personal only. Opening: Qualified personal only.

The controller must be installed so that it is protected against impermissible humidity and severe contamination. In addition, make sure that the permitted ambient temperature is not exceeded.

The electrical connections must be made according to the relevant locally applicable regulations.

If using a thermocouple sensor, the compensation cables must be laid directly to the controller terminals.

Transducers must be connected only in compliance with the programmed range.

Transducer cables and signal lines (e.g. logic or linear voltage outputs) must be laid physically separated from control lines and mains voltage supply cables (power cables) and must be shielded.

Spatial separation between power controller and inductive loads is recommended.

Interference from contactor coils must be suppressed by connecting adapted RC-combinations parallel to the coils. Control circuits (e.g. for contactors) should not be connected to the mains power.

Use with sensor PT100: For 2-wire function there must be a jumper (short wire) between clamp 2 and clamp 3.

Output 1: Working contact (regulator output), Output 2: Alarm- or auxiliary function contact

Function:

A green LED "power" indicates normal function of the regulator.

The temperature will be automatically hold at a constant level. Yellow LED's indicate for you the output switching on and off (heating resp. cooling).

Adjustment:

Adjust the temperature you want with the large rotating-button:

Below the rotating-button you find a fastener for the rotating-button. To change the temperature, push this fastener.

This fastener can be adjusted tighter or softer with a 2 mm spanner.

Restriction (catch): Unintentional rotation of the button can be restricted: Open the 2 mm screw and take away the rotating button. On the back-side of the rotating button you find a restriction part for it. Use a little screw-driver or a pair of tweezers for taking this little black part out and put it in again to the point you want. Now this is your restriction for not changing the temperature upper (or lower) of the value you want.

Proportional-range Xp:

The proportional range Xp (backside of the controller) is adjusted to its best value. Maybe it is necessary to adjust it to an other value from 0... 5% (qualified personal only) (With value 0 it is working like a mechanical thermostat).

Best adjustment for gas burner or oil burner at melting units for diecasting-machines: about 0,5 %.

Indication of errors: (series from 08. February 2005 and later)

Flashing **-1666** indicates the following errors:

A. cable to thermocouple broken.

B. Temperature overflow (higher than maximum scale range).

C. Thermocouple wiring crosswired (temperature lower than -40°C).

In all this cases of errors all outputs will be switched off - until the errors are repaired.

Attention: In case of short circuit in thermocouple wiring: External room temperature is indicated, no error will be indicated!

Guarantee: (2 years)

Hirsch guarantees perfect functioning and will repair faulty regulators without cost provided damage is not due to mishandling.

Blue »N«: New type since January 2009.

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