

DIMENSIONAL DATA

OVERALL DIMENSIONS

The dimensions are expressed in millimetres and inches (third-scale drawing).

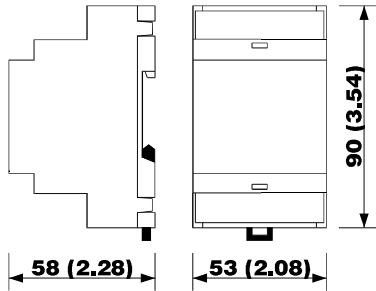


Fig. 3
ds63me.wmf

INSTALLATION

WITH THE FIXING SYSTEM SUGGESTED BY THE BUILDER

On DIN EN 50022 standard rail according with DIN 43880 norms (third-scale drawing).

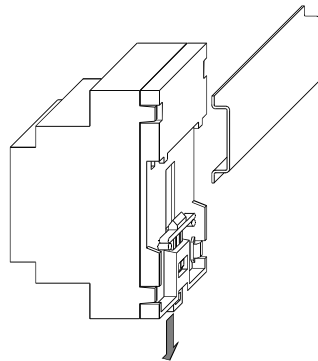


Fig. 4
ms63m.wmf

ELECTRICAL CONNECTION

CONNECTIONS TO DERIVE

Instance of typical application.

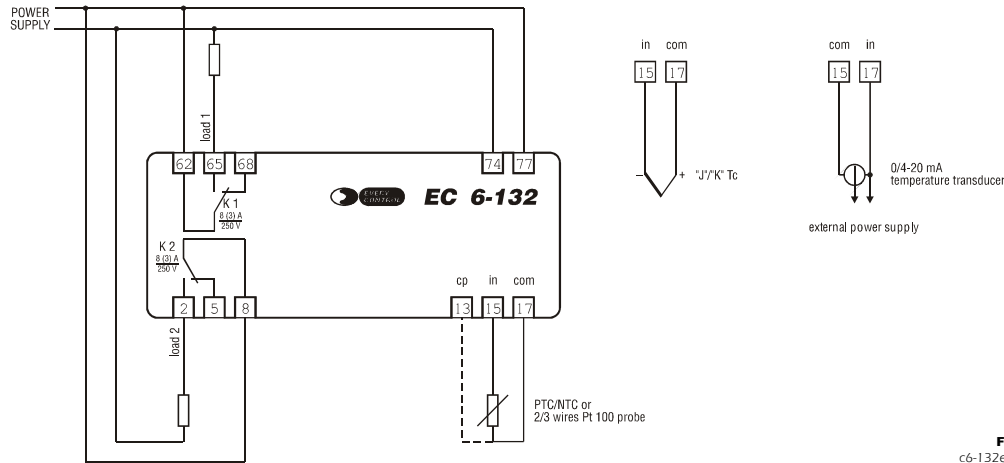


Fig. 5
c6-132e.wmf

BUILDER DATA

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EC 6-132

ON-OFF two outputs digital thermoregulator

Operating instructions

Release 1/99 of March the tenth 1999
Code EC 6-132 DOC E000
File 6132e.p65

IMPORTANT:

The use of this new instrument is easy; but for safety reasons, it is important read these instructions carefully before the installation or before the use and follow all additional informations.

It is very important keep these instructions with the instrument for future consultations.



Fig. 1
f6-132.wmf

GENERAL INFORMATIONS

WHAT IS THE USE

EC 6-132 is an ON-OFF two outputs digital thermoregulator able to cover a temperature range from -99 to +999 °C (-99 to +999 °F).

In factory the instrument gets preset to accept at the measure input PTC/NTC probes or "J"/"K" thermocouples or 2/3 wires Pt 100 probes or 2 and 3 wires 0/4-20 mA temperature transducers (in this last case it is possible to set the reading scale).

This device can be set to execute one of the following kind of regulation: with an independent working setpoint and the second relative to the first, with two independent working setpoint (in these two cases each output can be set for "cooling" or "heating" functioning), with "neutral zone" functioning.

EC 6-132 is available in the 53 x 90 mm (2.08 x 3.54 in., 3 DIN modules) case and it is studied for DIN standard rail installation.

GETTING STARTED

INSTALLATION

EC 6-132 was studied for DIN EN 50022 standard rail installation according with DIN 43880 norms (the overall dimensions are related in Fig. 3, the fixing system suggested by the builder is related in Fig. 4).

ADDITIONAL INFORMATIONS

- verify if the using conditions (ambient temperature, humidity, etc.) are within the limits indicated by the builder (see the chapter TECHNICAL DATA)
- install the instrument in a location with a suitable ventilation, to avoid the internal overheating of the instrument
- do not install the instrument near surfaces that can obstruct the air-grating (carpets, covers, etc.), heating sources (radiators, hot air ducts, etc.), locations subject to direct sunlight, rain, humidity, excessive dust, mechanical vibrations or bumps, devices with strong magnets (microwave ovens, big speakers, etc.)
- according with the safety norms, the protection against possible contacts with electrical parts and parts protected with functional insulation only must be ensured through a correct installation procedure of the instrument; all parts that ensure the protection must be fixed so that they can not be removed if not with a tool.

ELECTRICAL CONNECTION

EC 6-132 is provided with four screw terminal blocks for cables up to 2.5 mm² (0.38 in.²); for the connection to the power supply, measure input and outputs), located on the instrument frontal panel (the connections to derive are related in Fig. 5 and they are checkable on the polyester label stuck on the instrument case).

ADDITIONAL INFORMATIONS

- if the instrument is brought from a cold to a warm location, the humidity may condense inside the instrument; wait about an hour before supply the instrument
- verify if the operating power supply voltage, electrical frequency and power of the instrument correspond to the local power supply (see the chapter TECHNICAL DATA)
- do not supply more instruments with the same transformer
- if the instrument is installed on a vehicle, its power supply must be derived directly from the battery of the vehicle
- give the instrument a protection able to limit the current absorbed in case of failure
- the instrument remains connected to the local power supply as long as the terminals 74 and 77 are derived to the local power supply, even if the instrument is apparently turned off
- give the probe a protection able to insulate it against possible contacts with metal parts or use insulated probes
- give the outputs a protection able to protect them against short circuit and overload do not try to repair the instrument; for the repairs apply to highly qualified staff
- if you have any questions or problems concerning the instrument please consult Every Control (see the chapter BUILDER DATA).

USE

PRELIMINARY INFORMATIONS

After derived the connections related in Fig. 5, during the normal functioning the instrument displays the temperature read by the probe.

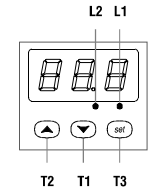


Fig. 2
iu6132.wmf

If an alarm should be active the instrument displays the alarm code flashing and the buzzer utters an intermittent beep as long as the cause that has given it does not disappear (see the chapter SIGNALS AND ALARMS); pressure on the key T1 during an alarm permits to silence the buzzer.

EC 6-132 is provided with two working setpoint and with some configuration parameters that get stored in a non volatile memory and that permit to set the instrument according with one's requirements (see the chapter CONFIGURABILITY).

During the regulations with an independent working setpoint and the second relative to the first and with two independent working setpoint, the output K 1 is associated to the first working setpoint, the output K 2 is associated to the second working setpoint, they remain activated continuously as long as the temperature read by the probe reaches the working setpoint and when it rises above (if the outputs were set for "cooling" functioning) or it falls below (if the outputs were set for "heating" functioning) the respective working setpoint of the hysteresis value (differential) the outputs get reactivated.

During the regulation with "neutral zone" the output K 1 remains activated continuously as long as the temperature read by the probe reaches the working setpoint and when it rises above the working setpoint of the "neutral zone" value the output gets reactivated; likewise the output K 2 remains activated continuously as long as the temperature read by the probe reaches the working setpoint and when it falls below the working setpoint of the "neutral zone" value the output gets reactivated.

WORKING SETPOINT SETTING (WORKING TEMPERATURE)

To modify the first working setpoint value keep pushed the key T3 (the instrument displays the actual value) and at the same time push and release over and over the key T1 or T2 as long as the instrument displays the desired value (keeping pushed the key T1 or T2 the value gets decreased or increased more quickly); after the modification release the key T3 last; for the two seconds following the release of the key T3 the instrument displays the established value and the LED L1 flashes quickly to indicate that a first working setpoint setting procedure is running (passed the two seconds from the release of the key T3 without operated with the keys the instrument automatically turns out from the working setpoint setting procedure).

To modify the second working setpoint value release and keep pushed the key T3 during the flashing of the LED L1 (the instrument displays the actual value) and at the same time push and release over and over the key T1 or T2 as long as the instrument displays the desired value (keeping pushed the key T1 or T2 the value gets decreased or increased more quickly); after the modification release the key T3 last; during the pressure of the key T3 the LED L2 flashes quickly to indicate that a second working setpoint setting procedure is running (to the release of the key T3 the instrument automatically turns out from the working setpoint setting procedure).

ADDITIONAL INFORMATIONS

- for the whole period of a corrupted memory data alarm the access to the working setpoint setting procedure is refused
- if the parameter -/0 has value the second working setpoint does not exist
- the first working setpoint is programmable within the limits established with the parameters rA1 and rA2

