

4-Zone Multi-Channel Controller GTR400

Type 96 mm x 96 mm (1/4 DIN)



...Advantages:

- ✦ ...programmable input signal
- ✦ ...high calibration accuracy 0.2 - 0.25 % of input value
- ✦ ...4-zone system with 96 mm x 96 mm
- ✦ ...heater current monitoring (optional)
- ✦ ...collective alarm outputs with free allocation
- ✦ ...setpoint and actual value indicated at the same time
- ✦ ...manual and automatic function reversible
- ✦ ...tendency indication during normal operation
- ✦ ...RS232, RS485 interface (optional)
- ✦ ...CANopen interface (optional)

...General Description:

Our multi-channel controllers of the **GTR400** series are not only characterised by their small dimensions, they are also suitable for nearly all industrial temperature applications.

The standard design includes two-step and three-step controllers with logic outputs to control solid-state relays (SSR) or with relay outputs.

This range of controllers is completed by two programmable alarm outputs and many additional options (heater current measurement; RS485, RS232, or CANopen interface...etc.).

...Functions:

- P / PI / PD / PID behaviour
- Self-optimisation
- Ramp function
- Switching to manual operation
- Heater current measuring / monitoring
- Output ratio assumption on sensor break
- Alarm outputs with free allocation
- Setpoint switching
- Heater current measurement and monitoring

...Controller Equipment:

- Universal input for resistance thermometer (*)
- Universal input for thermocouple (*)
- Universal input for residual current (optional)
- Aktionsausgänge: bistabile Spannung (*)
- Action outputs: relay (optional)
- Alarm output 1: relay (*)
- Alarm output 2: relay (**)
- RS485 or RS232 interface (optional)
- CANopen interface (optional)
- Mains supply 230 VAC (*)
- Mains supply 24 VDC (optional)
- Mains supply 115 VAC (optional)

(*) - Basic standard version 01

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...Technical Data:

Input Pt100

Connection of 2- or 3-wire circuit.
Sensor break and short-circuit monitoring.
Sensor current < 1 mA
Calibration accuracy: < 0.2 %
Linearity error: < 0.2 %
Ambient temperature influence on measuring span: < 0.01 % / K.

Input thermocouple

Sensor break protection and internal reference junction.
Reverse voltage protection.
Calibration is unnecessary up to an output impedance of 50 Ohm.
Calibration accuracy: < 0.25 %.
Linearity error: < 0.2 %.
Ambient temperature influence on measuring span: < 0.01 % / K.

Analogue input (d1, d2)

0...10 VDC (programmable range of indication).

Setpoint switching

Via external, voltage-free contact.
Switching voltage: approx. 24 VDC, max. 1 mA.

Action outputs

Voltage, bistable, 0/18 VDC, max. 10 mA, short-circuit-proof.
Relay, N/O contact, max. 250 VAC, 3 A with $\cos\phi = 1$.

Data backup

EAROM, solid-state memory.

CE marking

EMC according to 89/336/EEC
EN 50081-2, EN 50082-2

Mains supply

230 VAC +/- 10 %, 48...62 Hz, approx. 10 VA (standard)
24 VDC +/-10 % (optional)

Connections

Screw terminal blocks, protection type IP 20 (DIN 40050),
Isolation group C

Construction dimensions

96 x 96 mm, installation depth: 122 mm
Protection type, front: IP 50
Weight: approx. 800 g

Range of application

Storage temperature: -30...70 °C
Operating temperature: 0...50 °C
Class of application: KWF DIN 40040
75 % annual average rel. humidity, without condensation

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Front View:



Display "PROCESS"	= Actual value indicator
Display "ZONE"	= Zone indicator
Display "SET"	= Setpoint indicator
LED "1, 2"	= Action contact 1 and 2
LED "SP2"	= Active setpoint switching
LED "A1"	= Alarm contact 1
LED "A2"	= Alarm contact 2
LED "RAMP"	= Active ramp
Key "UP/DOWN"	= Key for scrolling up and down
Key "Z"	= Key for zone selection
Key "E"	= Enter key
Key "P"	= Parameter key
Key "F1"	= Function key

Order Code:

GTR400 (standard)	-	1	01	
Auxiliary power 230 VAC 24 VDC		1 2		
Outputs: Standard version 01 Standard version 02			01 02	(action outputs bistable voltage + switching) (action outputs relay)

Accessories:

Heater current measurement, single-phase : GTRHZ-01
 Heater current measurement, three-phase : GTRHZ-03