

Multi-Function Controller GTR200 plus

Type 48 mm x 96 mm (1/8 DIN)



NEW

...a "plus" for:

- ✦ ...programmable input signal
- ✦ ...high accuracy 0.1% of input value
- ✦ ...sampling time 100 ms
- ✦ ...heater current monitoring
- ✦ ...free allocation of outputs and functions
- ✦ ...setpoint and actual value indicated at the same time
- ✦ ...manual and automatic function reversible
- ✦ ...boost function
- ✦ ...maintenance manager / error list
- ✦ ...master / slave function
- ✦ ...control circuit monitoring
- ✦ ...integrated programming interface

...General Description:

Our new multi-function controllers of the **GTR200 plus** series are characterised by their versatility. They are programmed and configured by four keys or a PC setup programme.

Due to their multi-functional hardware nearly all functions and control requirements can be implemented. It is possible to configure the GTR200 plus as alarm device, continuous controller, two-step controller, three-step controller and motor-step controller for all industrial and laboratory applications (version dependent).

Its range of performance is completed by special functions for hot runner technology.

...Functions:

- P / PI / PD / PID behaviour
- Self-optimisation
- Parameter set switching
- Startup switching
- Switching to manual operation
- Modbus master / slave function
- Heater current measuring / monitoring
- Control circuit monitoring
- Outputs with free allocation
- Programmable output functions
- Measuring circuit monitoring
- Programming interface
- Self-optimisation during startup and at setpoint

...Controller Equipment:

- Universal input for resistance thermometer (*)
- Universal input for thermocouple (*)
- Universal input for standard signal current (*)
- Universal input for standard signal voltage (*)
- Output 1: relay (*)
- Output 2: relay (*)
- Output 3: relay (*)
- Output 3: 0/10 VDC, 0(4)/20 mA, logic (**)
- Output 4: logic 0/24 V (*)
- Output 5: logic 0/24 V (*)
- BluePort front interface
- Mains supply 90 -260 VAC (*)
- Mains supply 20-26 VAC/18 - 31 VDC

(*) - Basic standard version 01 or programmable

(**)- Basic standard version 02

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...Technical Data:

Universal input

Sampling time	: 100 ms
Digital input filter	: adjustable from 0.000 to 9999 sec.
Input resolution	: > 14 bit
Input resistance	: 0 - 10 V DC: approx. 110 kOhm : 0 - 20 mA DC: 49 Ohm

Measuring ranges

- Thermocouple

Type	: L; J; K; N; R; S
Characteristic curve	: temperature linear
Sensor break monitoring	: configurable controller outputs
Measuring range accuracy	: 0.1 % of measuring range +/- 1 digit
Input resistance	: >=1 MegaOhm
Current through sensor for sensor break monitoring	: <=1 µV

Measuring ranges

- Resistance thermometer

Type	: Pt100, Pt1000, KTY11-6
Characteristic curve	: temperature linear
Connections	: three-wire
Sensor monitoring	: sensor break and short circuit
Measuring range accuracy	: accuracy approx. 0.5 K of measuring range
Linearisation segments KTY	: 16
Output impedance	: max. 30 Ohm
Measuring current	: 0.2 mA

Measuring ranges

- Current and voltage

Type	: total measuring range: 0 - 10 V total measuring range: 0 - 20 mA
Scaling	: -1999 - 9999
Resolution	: 0.6 mV / 1.5 µA
Characteristic curve	: linear, adjustable up to 16 segments
Measuring accuracy	: 0.1 % of measuring range
Measuring circuit monitoring	: 12.5 % below initial value

Input INP2

- Additional input

Type	: heater current measurement
Signal	: 0 - 50 mA / AC via converter
Scaling	: -1999 to +9999
Type	: current measuring range
Signal	: 0 - 20 mA
Scaling	: -1999 to +9999
Input resistance	: approx. 120 Ohm
Measuring circuit monitoring	: 12.5 % below initial value

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...General Data:















<u>Type of control</u>	Proportional band	: 1 - 9999 dig.
	Working point	: 0 - 100 % (-100 to +100 % with 3-step)
	Reset time	: 0.1 s - 9999 s- OFF
	Derivative time	: 0.1 s - 9999 s- OFF
	Switching point distance	: -1999 - 9999 dig.
	Minimum impulse length	: 0.1 - 9999 s
	Differential	: 0 - 9999 dig.
	Effective direction	: inverse and direct
	Output ratio limit	: -100 to +100 % (depending on controller)
<u>Manual operation</u>	Reversible via key or controller input	: correcting range 0 - 100 %
<u>Setpoint function</u>	Second setpoint / parameter set	: adjustable
	Switching via Di / key	: adjustable
	Setpoint limiting	: 1 - 9999 units/h or OFF
	Setpoint ramp	
<u>Self-optimisation</u>	Step test at startup	: 10 % (SP.LO to SP.Hi)
	Pulse test at startup	: 10 % (SP.LO to SP.Hi)
	Setpoint optimisation	: difference between actual value and setpoint 10 %
<u>Ambient conditions</u>	Operating temperature	: 0 - 60 °C
	Relative humidity	: 75 %, without condensation
	Reference ambient temperature	: 20 +/- 2 °C
	Storage temperature	: -40 - 70 °C
	Auxiliary power	: 90 - 260 VAC; 20 - 26 VUC
	Electric safety	: EN 61 010-1
	Overvoltage category	: II
	Pollution degree	: 2
	Electromagnetic compatibility	: EN 61 326-1
	Housing dimensions, front	: 48 mm x 96 mm
	Housing dimensions, depth	: 118 mm
	Front panel cut-out	: 45 mm x 92 mm
	Protection type	: IP 65
	Weight	: 270 g
<u>Communications</u>	Interface	: RS485 / 422
	Protocol	: Modbus RTU
	Controller address	: 1 - 247
	Rate	: 2400, 4800, 9600, 19.200 bit / s

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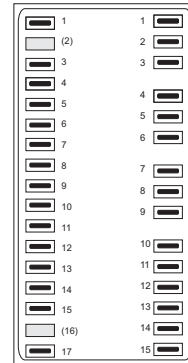
Type 48 mm x 96 mm (1/8 DIN)

Front View:

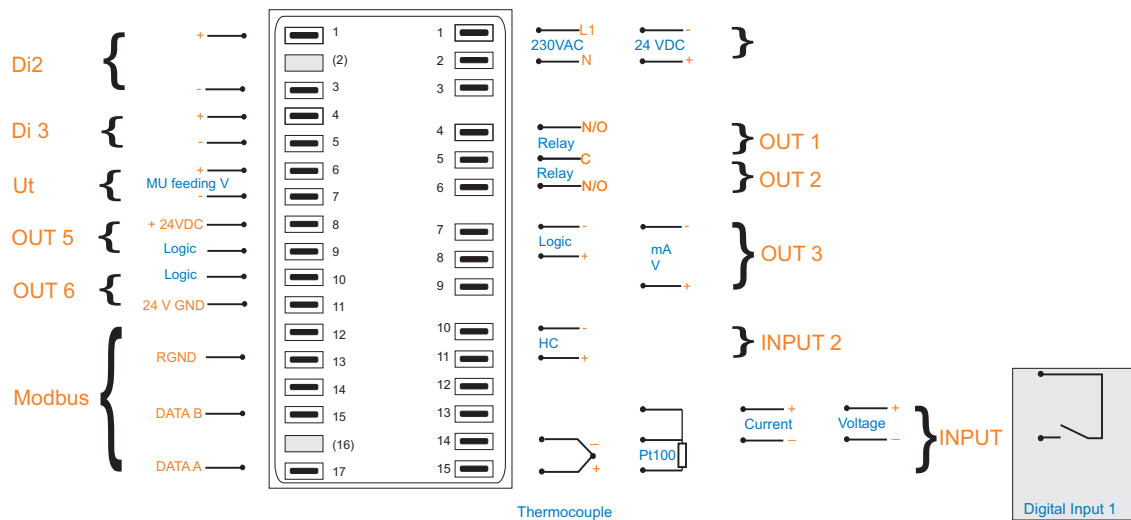


-  Setpoint display
-  Actual value display
-  "OK" - green LED
-  SP.x Second or external setpoint
-  Active ramp
-  Man Manual operation
-  Run Programme run
-  Ada Self-optimisation
-  ERROR
-  Switching manual / automatic operation
-  Setpoint adjustment DOWN
-  Setpoint adjustment UP
-  ENTER key
-  Parameter key / function key

Rear View:



Terminal Assignment / Wiring Diagram:



Order Code:

GTR200
(standard)

1

01

Auxiliary power
100 - 240 VAC
24 - 48 VDC

1

2

Outputs:

Standard version 01
Standard version 02

01

02

(relay / relay / **relay** / logic / logic)
(relay / relay / **analogue** / logic / logic)

Accessories:

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