

Universal PID-Controller UR4848

- PID-Controller in 48 x 48 mm format
- Universal AC/DC power supply
- Universal input für process signals, thermocouple, RTD
- 2-line LED display
- Easy programming via software or push buttons
- Analogue output or SSR output
- 2 alarm outputs



UR4848

This small universal controller is a compact all-rounder. With the universal input for the most common temperature sensors and process signals combined with the universal power supply and the newest programming and control technologies, this small PID-controller is the best solution for sophisticated applications. Beside the excellent price/performance-ratio, this controller convinces with his robust housing and brilliant display.

Display: 2-line LED-Display

Upper line: Process value, 4-digit, green with 10.2 mm digits
 Lower line: Setpoint, 4-digit, red with 7,6 mm digits

Indicators: Eight red indicators for relays outputs, alarm status, serial communication and tuning..

- C1, C2 ON, when output is active.
 C1 as relay/SSR/mA/voltoutput or C1 (opening) and C2 (closing) for electronic valves
- A1, A2, A3 ON, when alarm is active
- MAN ON, when the function "manual" is switched on
- TUN ON, when controller is in "autotune" mode
- REM ON when serial communication is active

Buttons: 3 push buttons for programming and setting up the setpoints.

Input ranges: Configuration of the input signal via software or push buttons.

- Thermocouples type K, S, R, J; internal cold junction (from 0 °C to 50 °C; accuracy of cold junction 0,1 °C/°C)
- RTD: Pt100, Pt500, Pt1000, Ni100, PTC1K, NTC10K
- Linear inputs: 0 V to 10 V, 0/4 mA to 20 mA, 0 mV to 40 mV
- Potentiometer: 1 kOhm to 6/150 kOhm

Accuracy: Tolerance at 25 °C +/-0.2 % ± 1 digit for thermocouple input, RTD input and analogue input signal.

Measuring rate: Programmable up to 4,1 msec. (242 Hz).

User input (only UR484803/04): (only available for thermocouple or process signal input) switchable via contact input signal. Alternative usable functions: Hold/freeze values, selecting setpoint 1 to 4.

Messwandlereingang (nur UR484803/04): max. 50 mA mit 80 msek. Messzyklus für Amperometrische Messwandler.

Excitation: +12 VDC @ 50 mA

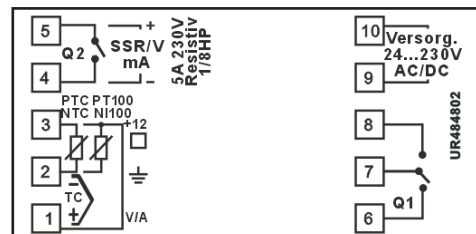
Relay output: 1 change over relay with and 1/2 closing contacts with 5 A @ 250 VAC. Programmable as controller output for heating/cooling and/or alarm

Analogue/SSR-output: Selectable via jumper. Programmierbarer Analogausgang 0 VDC to 10 VDC or 0/4 mA to 20 mA with a resolution of 4.000 steps. Programmable as controller output or retransmission process/setpoint value. SSR-output 12 VDC @ max. 30 mA.

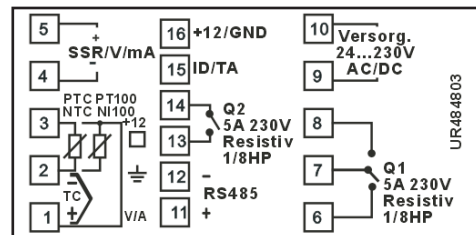
Communication port (only UR484803): RS485 with Modbus RTU as slave.

Supply: 24VAC/DC to 230 VAC/DC +/-15 %, 50/60Hz; 5,5 VA

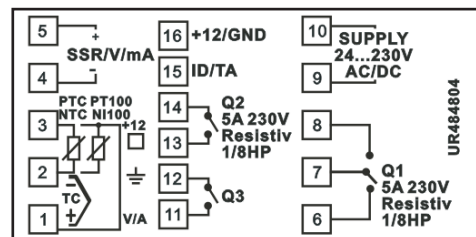
Wiring plan:



UR484802



UR484803



UR484804

Protection class: IP65 from the front (with rubber sealing), back plane IP20.

Housing: Black and robust plastic case. The electronics can be pulled out of the front.

Dimensions: W 48 mm x H 48 mm x D 125 mm. Panel cut out 46 mm x 46 mm.

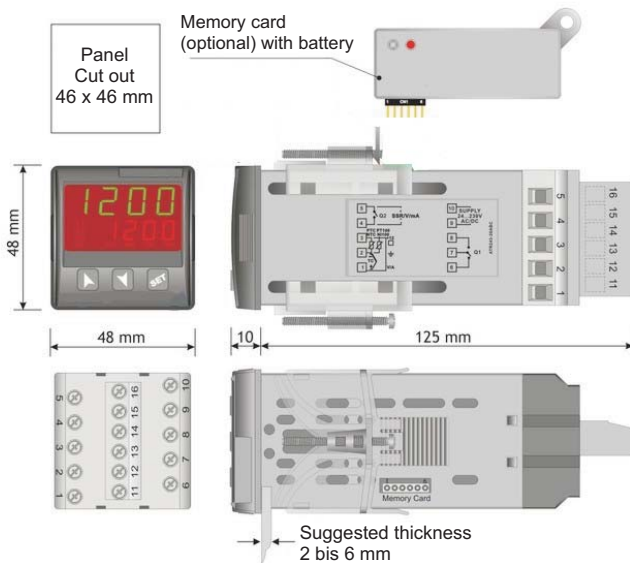
Connection: Via terminal block. .

Ambient conditions: Operating temperature: 0 °C to +45 °C; relative humidity 35 % to 95 % rF, non condensing..

Weight: 165 gramms (UR484802), 185 gramms (UR484803/04).

Scope of delivery: Controller, mounting clamp, sealing, manual..

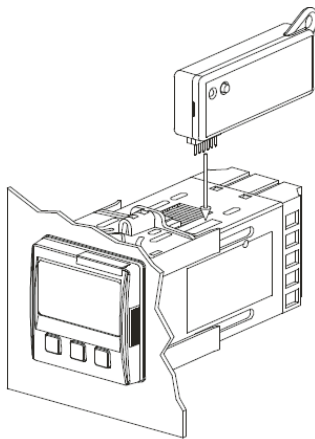
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Data protection: Lock of command / alarm setpoint - Access to parameters by password.

Dimensions (in mm)

Programming: The controller will be programmed via push buttons or Windows™-software. The memory card is battery powered. With this technology you can programm the controller without powering it up (up to 1000 programm cycles with one battery).



Functionality:

Control algorithms: ON - OFF with hysteresis, P., P.I., P.I.D., P.D. time proportioned, dead band. Additionally open / close logic for motorized valves

Tuning:

Manual or automatic tuning selectable.

Alarm modes: Absolute / Threshold, band, High / Low deviation. Alarm with optional manual reset. Standby and hysteresis programmable

Second controller output (cooling): Programmable instead of alarm output with P., P.I., P.I.D., P.D. time proportioned with dead band.

Order codes

Type	Order-No.
Universal controller, 48 x 48, 24 to 230VAC/VDC	
2 set points, 1 relay, 1 relay/analogue output/SSR	UR484802
3 set points, 2 relay, analogue output/SSR, RS 485	UR484803
4 set points, 3 relay, analogue output/SSR	UR484804
Accessories	
Programming module with USB cable	SFUR0KIT
Software download under: http://www.wachendorff.de/wp/dpc_dow_epg_sof.html	
Din rail power supply, 24 VDC, 3 A	PS24V03AA