

Wachendorff universal controller UR3274xA



- PID controller in 32 x 74 mm format
- Simple programming via keypad, PC software or WACHENDORFF EMG APP
- Universal power supply
- Universal input for process signals, thermocouples, Pt100, Pt500, Pt1000 and potentiometers
- 2-line LED display
- Two switching outputs as relays and one relay/SSR driver

<https://www.wachendorff-prozesstechnik.de/en/UR3274xA>

Description

The new, small universal controller UR3274xA is an all-rounder. We combine proven hardware with new technology. With a universal input for almost all commercially available temperature sensors, potentiometers and process signals, a universal power supply and modern programming, operating and control technologies, this controller can be used for almost all applications. In addition to an excellent price/performance ratio and high quality, the controller impresses with its robust housing and brilliant display. With the Wachendorff EMG app, you can experience a completely new way of parameterizing the universal controller. The Wachendorff EMG app has currently only been developed for Android operating systems; other operating systems such as Apple iOS are currently under development. The app allows you to read, write, program and manage your Wachendorff devices with NFC interface. By connecting via NFC, the universal controller is automatically recognized and the app opens. All you have to do is hold your smartphone in front of the controller for a few seconds. After successfully reading out the existing parameters, you can then view each parameter individually and change them as required. You can also simply save the configuration you have read out on your smartphone and reload it at any time. Once you have changed the desired parameters, you can load the new configuration into the device. You can also send the saved configuration file (.atr backup file) via email, SMS, WhatsApp, Bluetooth, WiFi Direct, etc.

Product details

Entrance areas:	Setting the input signal in the software, keypad or app. Thermocouple type K, S, R, J, T, E, N, B; reference junction: internal (from -25 °C to 85 °C; reference junction accuracy 0.1 °C/°C) Temperature sensors: Pt100, Pt500, Pt1000, Ni100, Ni120, PTC1K, NTC10K (β 3435K and β 3694K), NTC 2252 (β 3976K) Linear inputs: 0 V to 1/ 5/ 10 V, 0/4 mA to 20 mA, 0 mV to 60 mV Potentiometer: 1 kOhm to 150 kOhm
Impedance:	0 to 10 V: $R_{in} > 110 \text{ k}\Omega$ 0 to 20 mA: $R_{in} < 5 \text{ }\Omega$ 0 to 60 mV: $R_{in} > 1 \text{ M}\Omega$
Accuracy:	Tolerance at 25 °C $\pm 0.2 \% \pm 1$ digit for thermocouple input Thermocouple input, resistance thermometer and analog signal (V/ mA).

Display:	2-line LED display Upper line: Actual value, 4-digit, white with 9.6 mm digits Bottom line: Setpoint, 5 digits, red with 7.1 mm digits
Indicators:	Three red and three orange indicators for control outputs, alarm statuses, serial communication and tuning. C (orange): ON when control output is active. For electric control valves ON when valve opens and flashing when valve closes. A1, A2 (red): ON when an alarm is present. M (red): ON when the "manual" function is switched on. T (orange): ON when the controller is in the "auto-tuning" cycle. R (orange): ON when the controller is communicating via the serial interface. (UR32742A only)
Measurement cycle:	programmable up to 2.12 msec (470 Hz).
Cycle time:	Internal cycle time is 100ms (cannot be changed).
Digital input/output:	Optionally up to 2 digital inputs: Digital input 1 (terminals 8 and 9) can be enabled via the parameterization. Adjustable functions include: ON/OFF for the autotuning function, starting of program cycles/settings, selection of setpoint, programming lock. Digital input 2 (terminals 10 and 11) is not available when a resistance sensor (resistance thermometer or potentiometer) is selected. Digital output: Digital input 1 is not available when using a digital output (terminals 8 and 9). The digital output including SSR mode can be programmed as a control or alarm output.
Sensor supply:	+12 VDC @ 25 mA

Relay output:	1 changeover relay with 5 A at 250 VAC and 1 NO contact (only with UR32741A) with 5 A at 250 VAC. Programmable as control output for heating/cooling or alarm.
SSR output:	SSR output 12 VDC at max. 25 mA. Minimum load 1mA Programmable as control output for heating/cooling or alarm.
Power supply:	24 VAC/DC to 230 VAC/DC +/-15 %, 50/60 Hz, 5 Watt/VA
Ambient conditions:	Operating temperature: 0 °C to +45 °C; Relative humidity 35 % to 95 % rH, non-condensing. Max. Altitude: 2000 m
Programming:	Programming and operation is menu-guided via the front buttons. Programming for Android smartphones is also possible via the Wachendorff EMG APP (via NFC/RFiD). For programming via APP, the UR controller can also be in a de-energized state. The Wachendorff EMG app is currently only suitable for Android operating systems. A Wachendorff EMG app that supports iOS operating systems will follow soon. Another programming option is to use the "Wachendorff EMG DESKTOP" PC software via USB (2.0A to Micro-USB cable). You can save configurations to the optional USB memory card (SFUR0USB) and then transfer them to other devices.
NFC/RFiD:	When scanned by a reader that supports the NFC-V protocol, the device is to be regarded as a VICC (Vicinity Inductively Coupled Card) in accordance with the ISO/IEC 15693 standard. The controller operates at a frequency of 13.56 MHz. The device itself does not emit any radio waves.
Notes on programming via app:	The position of the controller's NFC sensor is at the top left. Protective covers for smartphones can interfere with the connection and should therefore be removed from the smartphone for the programming period.
Functionality:	The controller has a control output for two-point control (with hysteresis) or three-point control with P, PI, PD and PID behavior. The output is time-proportional. Cycle control for a control valve can also be programmed.
Alarm operating modes:	They switch when the temperature exceeds or falls below the limit or in the event of a deviation; band alarm; limit value or continuous signal switching. Standby and hysteresis are programmable. In the event of sensor breakage: various options can be set.

Interface:	UR32741A and UR32742A: 1x Micro-USB Only for UR32742A: 1x RS485 interface (Modbus RTU) Can be set as Modbus RTU slave or Modbus RTU master
Data protection:	Password-protected access to setpoint, alarm values and parameters. NFC/RFiD sensor can be switched off.
Housing:	Black, impact-resistant plastic housing Housing and front panel: PC UL94V2 self-extinguishing
Protection class:	IP65 front panel (with seal) IP20 housing and terminal strips
Weight:	approx. 120g
Certificates & approvals:	CE, UL
Dimensions (WxHxD)	77 mm x 35 mm (front panel) x 53 mm Panel cut-out: 28.5 x 70.5 mm Thickness of the front panel: 9 mm
Customs tariff number:	8542 31 90
Manufacturer:	Wachendorff Prozesstechnik GmbH & Co. KG

Products Order no.

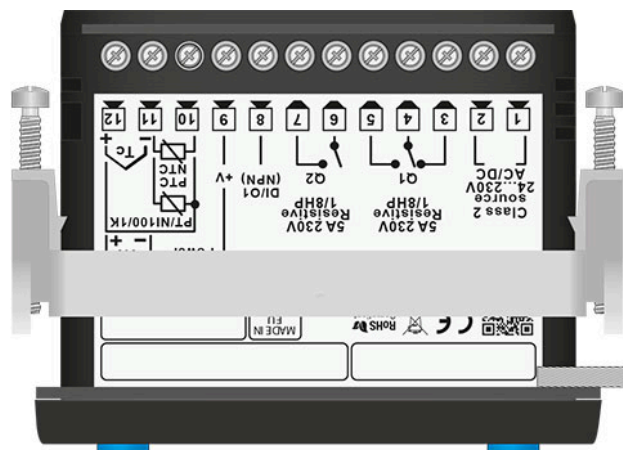
UR32741A	Universal controller, 32 x 74, 24 to 230 VAC/VDC 1x analog input + 2x relay 5A + 1x D.I / D.O
UR32742A	Universal controller, 32 x 74, 24 to 230 VAC/VDC 1x analog input + 1x changeover relay 5A + 1x D.I / D.O + RS485 interface

Accessories Order no.

SFUR0USB	USB programming module (optional for series commissioning)
KABUSBM2	USB programming cable, USB 2.0A to micro USB, 2 m cable
AMR3-24	DIN rail power supply unit for building automation, 90 to 264 VAC, 24 VDC, 1.5 A
DRS4-24	Power supply unit for DIN rail, 85 to 264 VAC, 24 VDC 4.2 A, spring terminal
URDR3274	DIN rail adapter for devices in the UR3274 series
URAD4832	Installation adapter 48 x 96 mm to 32 x 74 mm

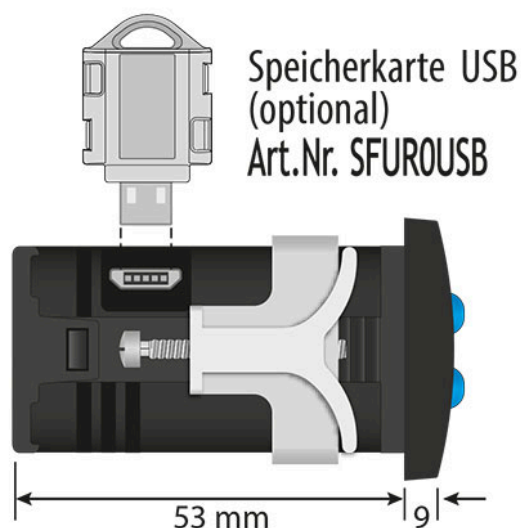
Drawings

Dimensions



Schalttafel-
ausschnitt
28.5 x 70.5 mm

Empfohlene Dicke 2 mm bis 8 mm





Wachendorff Prozesstechnik GmbH & Co. KG
Industriestrasse 7 • 65366 Geisenheim
Germany

Phone: +49 (0) 67 22 / 99 65 - 20
E-Mail: wp@wachendorff.de
www.wachendorff-prozesstechnik.de

