Wachendorff PID Controller URDR001A



- PID-Controller for DIN-rail mount
- Programmable via PC software, APP or keyboard
- Universal power supply
- Universal input for process signals, thermocouples, Pt100, potentiometer
- 2-line LED display
- Analog output and SSR driver output
- 3 relays and one RS485 interface

https://www.wachendorff-prozesstechnik.de/URDR001A-EN

Beschreibung

The new generation of the compact universal controller for the DIN rail is an all-rounder. We combine proven hardware with new technology. With a universal input for almost all commercially available temperature sensors, potentiometers as well as process signals, a universal power supply and modern programming, operating and control technologies, this DIN rail controller can be used for almost all applications. In addition to an excellent price/performance ratio and high quality, the DIN rail controller impresses with its robust housing and brilliant display. With the Wachendorff EMG App, you will experience a whole new way to parameterize the DIN rail controller. The Wachendorff EMG App has currently only been developed for Android operating systems, other operating systems such as Apple iOs are currently not supported by the App. The development of a Wachendorff EMG App for iOs operating systems has already started. The app will allow 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. To do this, you only need to 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 it as required. In the same way, you can simply save the configuration read out on your smartphone and reload it at any time. After you have changed the desired parameters, you can load the new configuration into the device. Likewise, you can send the saved configuration file (.atr backup file) via email, SMS, WhatsApp, Bluetooth, WiFi Direct, etc. Another option for programming is with the PC software "Wachendorff Displays and Controllers" via USB (USB cable 2.0A to Micro-USB). This software is Windows 7 and Windows 10 compatible. You can save configurations on the optional USB memory card and then transfer them to other devices.

Produkt-Details

Inputs:	Setting of the input signal in the programming via keyboard or via APP Possible input signals: Thermocouple type K, S, R, J, T, N, B Cold junction: internal (from -25 °C to 85 °C) Accuracy cold junction 0.1 °C/°C Temperature sensor: Pt100, Pt500, Pt1000, Ni100, PTC1K, NTC10K(ß 3435K) Process signals: 0 V to 10 V; resolution 50,000 points 0/4 mA to 20 mA; resolution 40,000 points 0 mV to 60 mV; resolution 25,000 points Potentiometer: 1 kOhm to 150 kOhm; resolution 50,000 points
Accuracy:	Tolerance at 25 °C ±0.2 % ± 1 digit for thermocouple input, temperature sensor and analog signal.
Input impedance:	0 to 10V: Ri> 110K 0 to 20mA: Ri< 5K 0 to 60mV: Ri> 1M
Display:	2-line LED display Upper line: Actual value, 4-digit, white with 12.7 mm digit Lower line: setpoint, 5-digit, red with 7.6 mm digit (Alphanumeric)
Keyboard:	4 keys for programming and adjusting the setpoint.
Sampling time:	Programmable up to 2,1 ms (frequency up 470 Hz)
Cycle time:	Internal cycle time is 100ms (not changeable).
Relay output:	3 Relays: 2 x Changeover contact relay with 5 A at 250 VAC resistive loads 1 x NO contact relay with 2A at 250 VAC resistive loads Programmable as control output for heating/cooling or alarms.

Analogue output:	Adjustable by programming. Programmable analog output 0 VDC to 10 VDC or 4 mA to 20 mA with a resolution of 40000 steps ±0.2% F.S. Programmable as control output or for transmission of actual/setpoint value.
Digital outputs:	2x digital outputs (PNP) Programmable as control output or alarm or Programmable as SSR output to control Soild-State relays. Range:12 VDC@25 mA or 24 VDC@15mA; Range depends on sensor supply setting
Auxiliary output:	12/24VDC - max 30mA , to supply the sensor
Current transformer input (T. A*):	max. 50 mA response time 800µs- resolution 4096 points e.g. for heating current monitoring.
Power Supply:	24 VAC/DC to 230 VAC/DC ±15 %, 50/60 Hz, 9 VA ; (galvanic isolation 2500V)
Digital Inputs:	2 digital inputs: Alternative adjustable functions ON/ OFF for the autotuning function, Starting of program cycles/settings, selection of setpoint, programming lock.
Operating conditions:	Temperature 0°C to 45 °C, Humidity 35% to 95 uR% (non-condensing)
Programming:	Programming and operation is menu-driven via the front keys. Programming is also possible via the Wachendorff EMG APP (via NFC/RFiD*) for Android smartphones. For programming via APP, the DIN rail 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 option for programming is with the PC software "Wachendorff Displays and Controllers" via USB (USB cable 2.0A to Micro-USB). This software is Windows 7 and Windows 10 compatible. *: When interrogated by a reader that supports the NFC-V protocol, the device is considered a VICC (Vicinity Inductively Coupled Card) according to the ISO/IEC 15693 standard. The controller operates at a frequency of 13.56 MHz. The device does not emit radio waves per se. You can save configurations on the optional SFUR0USB USB memory card and then transfer them to other devices.

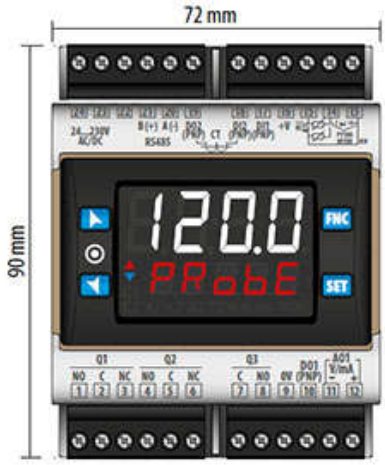
Notes on programming via app:	The NFC sensor of the controller is located on the left side between the up and down arrow keys. Protective covers for smartphones can interfere with the connection and should therefore be removed from the smartphone for the period of programming.
Functionality:	The URDR universal controller has a control output for two-point control (with hysteresis). control (with hysteresis) with P, PI, PD and PID behavior. The output is time proportional. Additionally a cycle control for a control valve is programmable (three-step control).
Alarm modes:	Absolute / Threshold , Band alarm, Upper/Lower deviation. Retentive alarms, Activation delay. Loop Break Alarm
Interface:	1 x RS485 (Modbus RTU Slave)
Data protection:	Lock command and/or alarm setpoints. Password to access configuration parameters
Dimensions (BxHxT):	72 mm x 90 mm x 64 mm Wide: 4 Modules, DIN43880, Mounting on DIN rail DIN EN50022
Housing:	Gray-black, impact-resistant plastic housing. Polycarbonate V0 PC UL94V2 self-extinguishing
Weight:	approx. 210 g
Sealing:	Enclosure and terminal blocks IP20

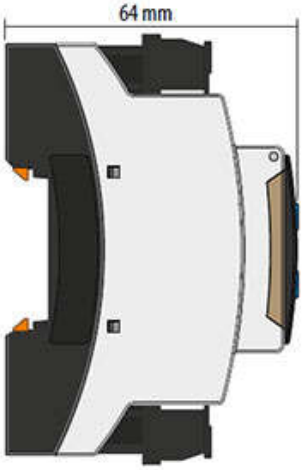
Bestell-Nr. Produkt(e)	
URDR001A	Universalregler, 24 bis 230VAC/VDC

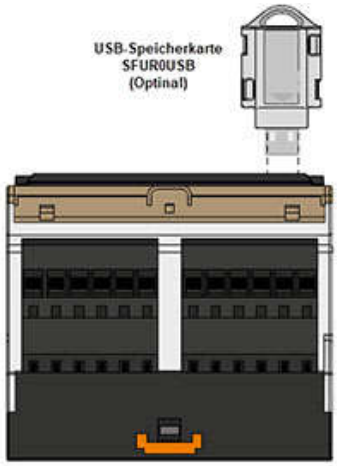
Bestell-Nr. Zubehör	
SFUR0USB	USB-Speicherkarte
KABUSBM2	USB-Programmierkabel, USB 2.0A auf Micro-USB, 2 m Kabel
AMR3-24	Hutschienen-Netzgerät für Gebäudeautomatisierung, 90 bis 264 VAC, 24 VDC, 1,5 A
DRS4-24	Netzgerät für Hutschiene, 85 bis 264 VAC, 24 VDC 4,2 A, Federklemme
RLY50000	Solid-State-Relais 50 VAC_{RMS} bis 280 VAC_{RMS}, max. 45 A

Zeichnungen

Abmessungen und STEP-Datei







Downloads / FAQ

Folgende Datei(en) können Sie auf unserer Homepage direkt bei diesem Produkt unter dem Reiter „Zeichnungen“ herunterladen:

STEP-Datei als zip und pdf zur Ansicht

URDR001A.pdf

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