

## Universal digital display DA9602R0



- Universal display in 96 x 48 mm format
- Extremely low installation depth of 32 mm
- Universal input for process signals, thermocouples, Pt100
- 16 mm high red LED display
- 2 alarm outputs
- High protection class IP65 from the front
- Programming via keypad or software (USB port)

<https://www.wachendorff-prozesstechnik.de/en/DA9602R0>

### Description

This small universal display is an all-rounder. With a universal input for almost all commercially available temperature sensors and process signals, a 24 VDC sensor supply up to 50 mA, the integrated totalizing function and 2 relay outputs, this display can be used for almost all applications. In addition to the very low installation depth, the IP65 front, the removable terminal blocks and the brilliant display with 16 mm high digits, this display impresses with its excellent price/performance ratio.

### Product details

|                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
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| Display:       | LED display, 5 digits, red with 16 mm high digits<br>Display range measured value: -1,999 to 30,000<br>Display range total: 0 to 9,999,999,999 (alternating display)                                                                                                                                                                                                                                                                                                    |
| Entrance areas | Input signal setting via keypad.<br><b>Thermocouple:</b> type J, K, T, N, R, S, B, E; reference junction: internal<br><b>Temperature sensor:</b> Pt100 in 3-wire (alpha = 0.00385)<br><b>Linear inputs:</b> 0 V to 5/10 V, 0/4 mA to 20 mA, 0 mV to 50 mV                                                                                                                                                                                                               |
| Indicators:    | Ten red indicators for alarm statuses, serial communication, totalizing function, minimum and maximum value.<br><b>°C, °F:</b> ON, depending on selection for temperature display<br><b>TX, RX, USB:</b> ON, if communication via interface<br><b>A1, A2:</b> ON if an alarm is pending<br><b>TOT:</b> ON if total is displayed<br><b>HIGH:</b> ON if the 6th to 10th digit of the total is displayed<br><b>LOW:</b> ON when 1st to 5th digit of the total is displayed |
| Keyboard:      | 4 buttons for programming and setting the setpoints.                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Accuracy:      | <b>Thermocouples type J, K, T, E:</b> 0.25 % of span $\pm 1$ °C<br><b>Thermocouples type N, R, S, B:</b> 0.25 % of span $\pm 3$ °C<br><b>Pt100:</b> 0.2 % of span<br><b>Linear analog input:</b> 0.2 % of span                                                                                                                                                                                                                                                          |

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| Measuring ranges Sensor types | <b>Thermocouple type J:</b> -110 °C to 950 °C (-166 °F to 1742 °F)<br><b>Thermocouple type K:</b> -150 °C to 1370 °C (-238 °F to 2498 °F)<br><b>Thermocouple type T:</b> -160 °C to 400 °C (-256 °F to 752 °F)<br><b>Thermocouple type N:</b> -270 °C to 1300 °C (-454 °F to 2372 °F)<br><b>Thermocouple type R:</b> -50 °C to 1760 °C (-58 °F to 3200 °F)<br><b>Thermocouple type S:</b> -50 °C to 1760 °C (-58 °F to 3200 °F)<br><b>Thermocouple type B:</b> 400 °C to 1800 °C (752 °F to 3272 °F)<br><b>Thermocouple type E:</b> -90 °C to 730 °C (-130 °F to 1346 °F)<br><b>Pt100:</b> -200 °C to 850 °C (-328 °F to 1562 °F) |
| Resolution:                   | Internal resolution with 65,535 steps (16 bit),<br>Display resolution 32,000 steps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Measuring cycle:              | 55 Hz with programmable digital filter                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Input impedance:              | Thermocouple, Pt100, 0 to 50 mV: >10 MOhm;<br>0 to 5/10 V: >500 kOhm;<br>0/4 to 20 mA: 100 Ohm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Protection class:             | Water jet-proof and dust-tight from the front in accordance with IP65 (with seal), rear protection class IP20.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Housing:                      | Plastic housing made of polycarbonate (PC) L94-V2.<br>Back made of ABS + PCUI94 V-0.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Dimensions:                   | W 96 mm x H 48 mm x D 35 mm.<br>Panel cut-out according to DIN: 93.0 x 45.5 mm. Fastening via lockable plastic clamping brackets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Fastening:                    | With lockable plastic clamping brackets.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Ambient conditions:           | Operating temperature: 0 °C to +50 °C;<br>relative humidity 80 %rh @ 30 °C, for temperatures above 30 °C, reduction of 3 %RH per °C.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Serial interface:             | Mini-USB (virtual COM port).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Sensor supply:                | 24 VDC +/- 15 % @ 50 mA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Relay output:                 | 2 NO contacts with separate earth, 1.5 A at 240 VAC/30 VDC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

|                        |                                                        |
|------------------------|--------------------------------------------------------|
| Power supply:          | 100 VAC to 240 VAC $\pm 10\%$ ,<br>50/60 Hz, 6 VA      |
| Connection:            | Via plug-in screw terminals.                           |
| Scope of delivery:     | Device, fixing material, seal, operating instructions. |
| Customs tariff number: | 9030 33 70                                             |
| Manufacturer:          | Wachendorff Prozesstechnik GmbH & Co. KG               |

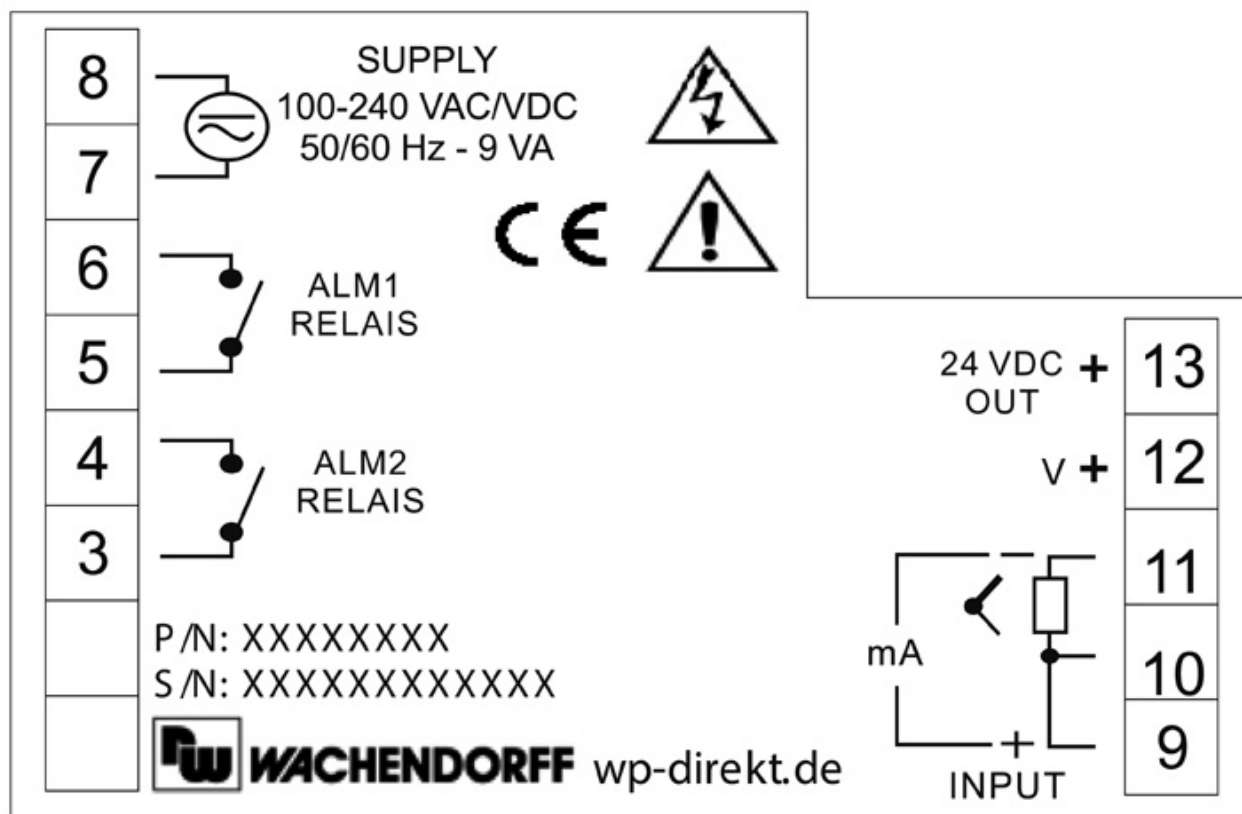
**Products Order no.**

|          |                                              |
|----------|----------------------------------------------|
| DA9602R0 | Universal digital display, 2 relays, 240 VAC |
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**Accessories Order no.**

|          |                              |
|----------|------------------------------|
| KABUSB11 | USB programming cable, 1.5 m |
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## Anschlüsse:





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