

**MICROSERIES  
UTCAR**
**Weidmüller Interface GmbH & Co. KG**

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The AR SERIES of signal isolating converters, with alarm function for process automation, provide a flexible interface between the sensor and the control system. The output side features analogue standard signals and two relay outputs for limit monitoring. On the input side, parameters can be processed depending on the module. This includes signal isolating converters for processing analogue signals such as current, voltage, temperature (PT100 and thermocouple sensors), frequency, conductivity, curve linearisation/characterisation, and additional math functions.

The process monitoring components from the AR SERIES come with a four-character, scalable LED display.

The scaling of the input parameters is done automatically. External passive sensors can be supplied directly via the input circuit of the signal isolating converter.

The user-friendly menus are easy and navigate and make it easy to configure the operating parameters.

The monitoring components are enclosed in a rugged rail-mountable

metal housing and feature complete isolation at 2 kV.

**General ordering data**

|            |                                                                     |
|------------|---------------------------------------------------------------------|
| Type       | UTCAR                                                               |
| Order No.  | <a href="#">7940012190</a>                                          |
| Version    | Process monitoring, Thermocouple (type J,K,T,E,B,S,R) or mV signals |
| GTIN (EAN) | 4032248566037                                                       |
| Qty.       | 1 pc(s).                                                            |

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**Technical data**
**Dimensions and weights**

|        |        |                 |            |
|--------|--------|-----------------|------------|
| Width  | 46 mm  | Width (inches)  | 1.811 inch |
| Height | 97 mm  | Height (inches) | 3.819 inch |
| Depth  | 120 mm | Depth (inches)  | 4.724 inch |
| Weight | 504 g  | Net weight      | 504 g      |

**Temperatures**

|                             |                            |                             |              |
|-----------------------------|----------------------------|-----------------------------|--------------|
| Humidity                    | 0...90 % (no condensation) | Operating temperature, max. | 60 °C        |
| Operating temperature, min. | 0 °C                       | Storage temperature, max.   | 70 °C        |
| Storage temperature, min.   | -25 °C                     | Operating temperature       | 0 °C...60 °C |
| Storage temperature         | -25 °C...70 °C             |                             |              |

**Environmental Product Compliance**

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

**Input**

|              |                                                  |                                                                                                                                    |
|--------------|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Type         | Sensor                                           | J<br>870°C(1598°F)/-50°C(-58°F),<br>K<br>1372°C(2502°F)/-50°C(-58°F),<br>N<br>1300°C(2375°F)/-50°C(-58°F),<br>T 400°C(752°F)/-50°C |
|              | Thermocouples (type J,K,T,E,B,S,R) or mV signals |                                                                                                                                    |
| Input signal | Thermocouple (type J,K,T,E,B,S,R) or mV signals  | Input resistance<br><br>≤ 1 kΩ                                                                                                     |

**Display**

|               |                     |                      |                       |
|---------------|---------------------|----------------------|-----------------------|
| Type          | 4-character display | Display range        | Depends on input type |
| Display value | °C / °F or V        | Resolution (display) | 1 °C / °F or 0.01 mV  |

**alarm output**

|      |                                                        |                                                   |
|------|--------------------------------------------------------|---------------------------------------------------|
| Type | Alarm output with 2 NO contacts and suppressor circuit | Switching current<br><br>1 A @ 240 V AC / 30 V DC |
|------|--------------------------------------------------------|---------------------------------------------------|

**General data**

|                         |                       |                                  |                                                 |
|-------------------------|-----------------------|----------------------------------|-------------------------------------------------|
| Accuracy                | < 0,1 %               | Cold-junction compensation error | ≤ 0.02 / °C° ambient temperature                |
| Input/Output            | Temperature converter | Linearity                        | ± 0.1 % typ.                                    |
| Long-term drift         | 0.1 % / 10.000 h      | Power consumption                | 6 W @ 24 V DC                                   |
| Rail                    | TS 35, TS 32          | Repeat accuracy                  | ± 0.05 % of signal range                        |
| Sampling rate           | 5x pro s              | Step response time               | 320 ms (10...90 %), adjustable to 250 ms...32 s |
| Temperature coefficient | ≤ 0.02 % / °C         | Voltage supply                   | 12...50 V DC                                    |

**Insulation coordination**

|                    |                                    |                           |                      |
|--------------------|------------------------------------|---------------------------|----------------------|
| EMC standards      | DIN EN 61326                       | Impulse withstand voltage | 4 kV (1.2/50 µs)     |
| Insulation voltage | 2 kV input / output / power supply | Rated voltage             | 300 V <sub>eff</sub> |

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**Technical data**
**Output (analogue)**

|                         |                    |                         |                                           |
|-------------------------|--------------------|-------------------------|-------------------------------------------|
| Load resistance current | $\leq 900 \Omega$  | Load resistance voltage | $\geq 1 \text{ k}\Omega$                  |
| Output current          | 0...22 mA          | Output voltage          | 0...11 V                                  |
| Transmit function       | direct or inverted | Type (analogue output)  | Voltage and current output (configurable) |

**Connection data**

|                      |                     |                                  |                     |
|----------------------|---------------------|----------------------------------|---------------------|
| Type of connection   | Screw connection    | Clamping range, rated connection | 1.5 mm <sup>2</sup> |
| Clamping range, min. | 0.5 mm <sup>2</sup> | Clamping range, max.             | 2.5 mm <sup>2</sup> |

**Classifications**

|             |             |            |             |
|-------------|-------------|------------|-------------|
| ETIM 6.0    | EC000677    | ETIM 7.0   | EC000677    |
| eClass 9.0  | 27-14-31-10 | eClass 9.1 | 27-21-03-01 |
| eClass 10.0 | 27-14-31-10 | UNSPSC     | 30-21-18-01 |

**Approvals**

Approvals



|      |         |
|------|---------|
| ROHS | Conform |
|------|---------|

**Downloads**

|                    |                        |
|--------------------|------------------------|
| User Documentation | <a href="#">Manual</a> |
|--------------------|------------------------|

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## Drawings

### Electric symbol

