

**WAVESERIES**  
**WAS5 CVC 4-20mA/0-10V**

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 1429-0  
Fax: +49 5231 14292083  
www.weidmueller.com



When used for industrial monitoring applications, sensors can record ambience conditions. Sensor signals are used within the process to continually track changes to the area being monitored. Both digital and analogue signals can occur.

Normally an electrical voltage or current value is produced which corresponds proportionally to the physical variables that are being monitored. Analogue signal processing is required when automation processes have to constantly maintain or reach defined conditions. This is particularly significant for process automation applications. Standardised electrical signals are typically used for process engineering. Analogue standardised currents / voltage 0(4)...20 mA/ 0...10 V have established themselves as physical measurement and control variables.

Weidmüller meets the ever increasing challenges of automation and offers a product portfolio tailored to the requirements of handling sensor signals in analogue signal processing

The analogue signal processing products can be used universally in combination with other Weidmüller products and in combination among each other. Their electrical and mechanical design is such that they require only minimal wiring efforts.

Housing types and wire-connection methods matched to the respective application facilitate the universal use in process and industrial automation applications.

The product line includes the following functions:

- Isolating transformers, supply isolators and signal converters for DC standard signals
- Temperature measuring transducers for resistance thermometers and thermocouples,
- frequency converters,
- potentiometer-measuring-transducers,
- bridge measuring transducers (strain gauges)
- trip amplifiers and modules for monitoring electrical and non-electrical process variables
- AD/DA converters
- displays
- calibration devices

**General ordering data**

The products mentioned are available as pure signal converters / isolation transducers, 2-way/3-way isolators, supply isolators, passive isolators or as trip amplifiers.

|            |  |
|------------|--|
| Order No.  | 8540230000                                   |
| Version    | Signal converter/insulator, Screw connection |
| GTIN (EAN) | 4032248180622                                |
| Qty.       | 1 pc(s).                                     |

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## Technische Daten

### Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Length     | 92.4 mm  | Length (inches) | 3.638 inch |
| Width      | 17.5 mm  | Width (inches)  | 0.689 inch |
| Depth      | 112.4 mm | Depth (inches)  | 4.425 inch |
| Net weight | 99.9 g   |                 |            |

### Temperatures

|                       |              |                     |                |
|-----------------------|--------------|---------------------|----------------|
| Operating temperature | 0 °C...55 °C | Storage temperature | -20 °C...85 °C |
|-----------------------|--------------|---------------------|----------------|

### Probability of failure

|      |                    |
|------|--------------------|
| MTTF | 371 mW per channel |
|------|--------------------|

### Input

|                           |         |               |           |
|---------------------------|---------|---------------|-----------|
| Number of inputs          | 1       | Input current | 4...20 mA |
| Input resistance, current | ≤ 110 Ω |               |           |

### Output

|                           |       |                        |          |
|---------------------------|-------|------------------------|----------|
| Number of outputs         | 1     | Output voltage, note   | 0...10 V |
| Cut-off frequency (-3 dB) | 10 Hz | load impedance voltage | ≥ 1 kΩ   |

### General data

|   |                                   |                         |                |
|---|-----------------------------------|-------------------------|----------------|
| Accuracy                                    | 0.2 %                             | Configuration           | none           |
| Current-carrying capacity of cross-connect. | ≤ 2 A                             | Galvanic isolation      | 3-way isolator |
| Input/Output                                | 4...20 mA/ 0...10 V               | Mounting rail           | TS 35          |
| Power consumption                           | < 1.3 W @ I <sub>OUT</sub> = 5 mA | Step response time      | ≤ 45 ms        |
| Supply voltage                              | 24 V DC ± 25 %                    | Temperature coefficient | ± 250 ppm/K    |

### Insulation coordination

|   |                           |   |                                |
|---|---------------------------|---|--------------------------------|
| Clearance & creepage distances            | ≥ 3 mm                    | EMC standards                           | EN 55011, EN 61000-6           |
| Galvanic isolation                        | 3-way isolator            | Impulse withstand voltage               | 4 kV                           |
| Insulation voltage                        | 2 kV <sub>eff</sub> / 5 s | Insulation voltage input or output/rail | 4 kV <sub>eff</sub> / 1 min.   |
| Insulation voltage input or output/supply | 2 kV <sub>eff</sub> / 5 s | Pollution severity                      | 2                              |
| Rated voltage                             | 300 V                     | Standards                               | DIN EN 50178, DIN EN 61000-4-2 |
| Surge voltage category                    | III                       |   |                                |

### Connection data

|  |                     |  |                     |
|--|---------------------|--|---------------------|
| Type of connection                     | Screw connection    | Stripping length, rated connection     | 7 mm                |
| Tightening torque, min.                | 0.4 Nm              | Tightening torque, max.                | 0.5 Nm              |
| Clamping range, rated connection       | 2.5 mm <sup>2</sup> | Clamping range, rated connection, min. | 0.5 mm <sup>2</sup> |
| Clamping range, rated connection, max. | 2.5 mm <sup>2</sup> |  |                     |

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### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| ETIM 3.0   | EC001774    | ETIM 4.0   | EC002653    |
| ETIM 5.0   | EC002653    | ETIM 6.0   | EC002653    |
| UNSPSC     | 31-12-10-07 | eClass 5.1 | 27-21-01-20 |
| eClass 6.2 | 27-21-01-20 | eClass 7.1 | 27-21-01-20 |
| eClass 8.1 | 27-21-01-20 | eClass 9.0 | 27-21-01-20 |
| eClass 9.1 | 27-21-01-20 |            |             |

### Product information

|                              |   |
|------------------------------|---|
| Product information          | This product will soon be replaced by a new product.<br>Please do not use with new systems. Please contact our technical support. |
| Descriptive text accessories | Cross-connectors for power supplies and markers: refer to accessories   |

### Approvals

Approvals



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

### Downloads

|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of Conformity</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.1 ELECTR 16/17 EN</a>   |
| Engineering Data                            | <a href="#">EPLAN_WSCAD</a>               |
| User Documentation                          | <a href="#">Instruction sheet</a>         |

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## Zeichnungen

### Electric symbol

