

**WAS1 CMA LP 1/5/10A AC****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)

Output current loop fed AC current monitoring components WAS/WAZ1 CMA LP.

They can measure single-phase 50/60 Hz AC currents of up to 10 A using the Root Mean Square (RMS) method on the input side. They can also be switched between three ranges. No external power supply is used; the supply is only via the 4...20 mA current loop on the output side.

The input and output circuits are securely isolated with 4 kV.

The monitoring components come in a 17.5-mm-wide WAVEBOX housing. These devices can be used in many process automation applications because they are not dependent on an external power supply.

International approvals (such as ATEX Zone 2 and UL C1D2) also permit usage in explosion-risk zones.

**General ordering data**

|                     |  |
|---------------------|--|
| Version             | Current monitoring, Input current: 0...1 A AC/ 0...5 A AC/ 0...10 A AC, Output : 4-20 mA, (loop powered) |
| Order No.           | <a href="#">8528650000</a>   |
| Type                | WAS1 CMA LP 1/5/10A AC   |
| GTIN (EAN)          | 4032248160426  |
| Qty.                | 1 pc(s).   |
| Delivery status     | <b>This article will no longer be available in the future.</b>   |
| Available until     | 2023-12-30   |
| Alternative product | <a href="#">2044850000</a>   |

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## Technical data

## Dimensions and weights

|            |          |                 |            |
|------------|----------|-----------------|------------|
| Depth      | 112.4 mm | Depth (inches)  | 4.425 inch |
| Width      | 22.5 mm  | Width (inches)  | 0.886 inch |
| Length     | 72 mm    | Length (inches) | 2.835 inch |
| Net weight | 100.7 g  |                 |            |

## Temperatures

|                                   |                            |                       |              |
|-----------------------------------|----------------------------|-----------------------|--------------|
| Storage temperature               | -20 °C...70 °C             | Operating temperature | 0 °C...70 °C |
| Humidity at operating temperature | 0...95 % (no condensation) |                       |              |

## Probability of failure

|                                  |      |      |       |
|----------------------------------|------|------|-------|
| SIL in compliance with IEC 61508 | None | MTTF | 564 a |
|----------------------------------|------|------|-------|

## Input

|                  |  |                 |           |
|------------------|--|-----------------|-----------|
| Input current    | 0...1 A AC/ 0...5 A AC/<br>0...10 A AC | Input frequency | 50...60Hz |
| Number of inputs | 1                                      |                 |           |

## Output

|                        |               |                   |                          |
|------------------------|---------------|-------------------|--------------------------|
| Load impedance current | ≤ 600 Ω       | Number of outputs | 1                        |
| Offset current         | max. 100 µA   | Output current    | 4...20 mA (current loop) |
| Output signal limit    | Approx. 24 mA |                   |                          |

## Output (digital)

|                            |   |                         |       |
|----------------------------|---|-------------------------|-------|
| Max. switching voltage, AC | 0 V   | Rated switching current | 0.1 A |
| Status indicator           | LED ON: OK; LED flashing:<br>signal out of range;<br>LED OFF: Error |                         |       |

## General data

|                         |                |                    |  |
|-------------------------|----------------|--------------------|--|
| Accuracy                | 0.5 % FSR      | Configuration      | DIP switch                               |
| Galvanic isolation      | 2-way isolator | Protection degree  | IP20                                     |
| Rail                    | TS 35          | Step response time | typ. 700 ms                              |
| Temperature coefficient | ≤ 200 ppm/K    | Voltage supply     | 13...30 V DC, via output<br>current loop |

## Insulation coordination

|                           |                      |                    |                           |
|---------------------------|----------------------|--------------------|---------------------------|
| EMC standards             | EN 55011, EN 61000-6 | Galvanic isolation | 2-way isolator            |
| Impulse withstand voltage | 6 kV                 | Insulation voltage | 4 kV <sub>eff</sub> / 5 s |
| Pollution severity        | 2                    | Rated voltage      | 300 V                     |
| Surge voltage category    | III                  |                    |                           |

## Connection data

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

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|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002653    | ETIM 7.0    | EC002653    |
| ETIM 8.0    | EC002653    | ETIM 9.0    | EC002653    |
| ECLASS 9.0  | 27-21-01-20 | ECLASS 9.1  | 27-21-01-20 |
| ECLASS 10.0 | 27-21-01-20 | ECLASS 11.0 | 27-21-01-20 |
| ECLASS 12.0 | 27-21-01-20 | ECLASS 13.0 | 27-21-01-20 |

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**Technical data**

**Tender specification sheets**

Long specification

Short specification

**Monitoring component for AC currents up to 10A with 4...20 mA loop feed and electrical isolation**  
**Current monitoring component in 22.5 mm width for recording 50/60 Hz AC currents**  
**0...1 A / 0...5 A / 0...10 A. Input range can be selected using DIP switches.**  
**Power is fed to the component via the 4...20 mA current loop on the output side.**  
**The input and output circuits have 6 kV of electrical isolation.**

**Add-on housing for TS35 rail mounting**  
**Dimensions: L/W/H 72/22.5/ 92.4 mm**  
**Screw connection / Nominal cross-section 2.5 mm<sup>2</sup>**  
**Protection degree: IP 20**  
**Input 0...1 A / 0...5 A / 0...10 A AC switchable**  
**50 / 60 Hz**  
**Voltage of measuring circuit 250 V AC**  
**Output 4...20 mA current loop**  
**Load resistance < 600 Ohm Strom**  
**>1 kOhm / voltage**  
**Transmission error < 0,5% v. E.**  
**Temperature coefficient 200 ppm / K**  
**Step response time typ. 700 ms**  
**Auxiliary power via output-side current loop**  
**Ambient temperature range 0 °C...+50 °C**

**Secure isolation EN 50178, 2-way isolation up to 6 kV**  
**Test voltage 4 kV input against output**  
**Rated voltage 300 V AC/DC at overvoltage category III and pollution degree 2**  
**Approvals cULus**

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|            |  |
|------------|--|
| REACH SVHC | Lead 7439-92-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol 119-47-1 |
| SCIP       | f8333314-0c66-4444-aa47-78252861a7fb                                 |

**Important note**

|                     |   |
|---------------------|---|
| 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. |
|---------------------|---|

**Approvals**

Approvals



|                         |            |
|-------------------------|------------|
| ROHS                    | Conform    |
| UL File Number Search   | UL Website |
| Certificate no. (cULus) | E141197    |

**Downloads**

|   |  |
|---|--|
| Approval/Certificate/Document of Conformity | <a href="#">Application notes – Declaration of Conformity</a>                      |
| Engineering Data                            | <a href="#">CAD data – STEP</a>  |
| Product Change Notification                 | <a href="#">20220218 Technical change - WAVE series' signal conditioners WS WZ</a> |
| User Documentation                          | <a href="#">Device description – Instruction sheet</a>                             |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>   |
| Brochures                                   |  |

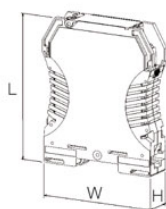
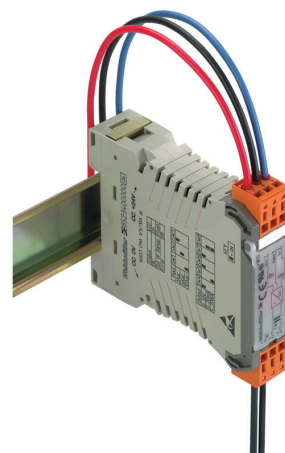
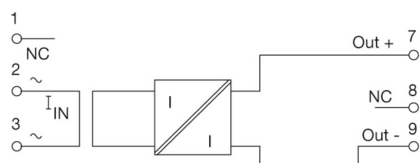
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## Drawings

### Electric symbol



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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****2.5 mm<sup>2</sup>**

2.5  
mm<sup>2</sup>

The plug-in cross-connections feature easy handling and quick installation. This saves a great deal of time during installation in comparison with screwed solutions.

**General ordering data**

|            |                            |                                 |
|------------|----------------------------|---------------------------------|
| Type       | ZQV 2.5N/2 RT              | Version                         |
| Order No.  | <a href="#">1717900000</a> | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190349288              |                                 |
| Qty.       | 60 pc(s).                  |                                 |
| Type       | ZQV 2.5N/2 BL              | Version                         |
| Order No.  | <a href="#">1717990000</a> | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190349295              |                                 |
| Qty.       | 60 pc(s).                  |                                 |
| Type       | ZQV 2.5N/2 GE              | Version                         |
| Order No.  | <a href="#">1693800000</a> | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190883621              |                                 |
| Qty.       | 60 pc(s).                  |                                 |
| Type       | ZQV 2.5N/2 SW              | Version                         |
| Order No.  | <a href="#">1718080000</a> | W-Series, Cross-connector, 24 A |
| GTIN (EAN) | 4008190349301              |                                 |
| Qty.       | 60 pc(s).                  |                                 |

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WS markers are the perfect match for the W-series connectors. Thanks to their system compatibility, the WS tags can also be used with the I-series and the Z-series. The large marking surfaces do not only permit long character strings but also multi-line text. WS markers are ideal for labels with long, customised character strings. Thanks to the proven MultiCard format, printing with PrintJet CONNECT oder/or Plotter is possible.

- Can be fitted in strips or individually
- Markers in proven MultiCard format

**For custom printing:** Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

**General ordering data**

|            |                            |  |
|------------|----------------------------|--|
| Type       | WS 10/5 MC NE WS           | Version  |
| Order No.  | <a href="#">1635000000</a> | WS, Terminal marker, 10 x 5 mm, Pitch in mm (P): 5.00 Weidmueller, |
| GTIN (EAN) | 4008190261948              | Allen-Bradley, white   |
| Qty.       | 720 pc(s).                 |  |