

**WAS1 CMA LP 1/5/10A EX**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany

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="#">8975590000</a>                                                                               |
| Type       | WAS1 CMA LP 1/5/10A EX                                                                                   |
| GTIN (EAN) | 4050118023640                                                                                            |
| Qty.       | 1 Stück                                                                                                  |

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## Technische Daten

### 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 | 101 g    |                 |            |

### Temperatures

|                             |                |                             |              |
|-----------------------------|----------------|-----------------------------|--------------|
| Storage temperature         | -20 °C...70 °C | Operating temperature       | 0 °C...50 °C |
| Operating temperature, min. | 0 °C           | Operating temperature, max. | 50 °C        |

### Probability of failure

|                                  |      |
|----------------------------------|------|
| SIL in compliance with IEC 61508 | None |
|----------------------------------|------|

### 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)

|                  |                                                                     |
|------------------|---------------------------------------------------------------------|
| Status indicator | LED ON: OK; LED flashing:<br>signal out of range;<br>LED OFF: Error |
|------------------|---------------------------------------------------------------------|

### Output (analogue)

|                |                          |
|----------------|--------------------------|
| Output current | 4...20 mA (current loop) |
|----------------|--------------------------|

### General data

|                         |                |                    |                                          |
|-------------------------|----------------|--------------------|------------------------------------------|
| Accuracy                | 0.5 % FSR      | Configuration      | DIP switch                               |
| Galvanic isolation      | 2-way isolator | Input/Output       | 1 /5/ 10 A AC / 4...20 mA (current loop) |
| Rail                    | TS 35          | Step response time | typ. 700 ms                              |
| Temperature coefficient | ≤ 200 ppm/K    | Voltage supply     | 13...30 V DC, via output current loop    |

### Insulation coordination

|                                  |                           |                           |                      |
|----------------------------------|---------------------------|---------------------------|----------------------|
| Clearance and creepage distances | ≥ 5.5 mm                  | 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                  |

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### Connection data

|                      |                     |                                  |                     |
|----------------------|---------------------|----------------------------------|---------------------|
| 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> |

### Classifications

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002653    | ETIM 7.0    | EC002653    |
| ETIM 8.0    | 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 |

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**Technische Daten**

**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. Approved for ATEX Zone2 and UL C1 D2 applications.**

**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**

**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**

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### Environmental Product Compliance

|            |                                      |
|------------|--------------------------------------|
| REACH SVHC | Lead 7439-92-1                       |
| SCIP       | c2a21576-d875-4548-ae68-5e7f85ddf0c7 |

### Important note

Product information      This product will soon be replaced by a new product.  
 Please do not use with new systems. Please contact our technical support.

### Approvals

Approvals



|                           |            |
|---------------------------|------------|
| ROHS                      | Conform    |
| UL File Number Search     | UL Website |
| Certificate no. (cULusEX) | E223527    |

### Downloads

|                                             |                                           |
|---------------------------------------------|-------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">Declaration of Conformity</a> |
| User Documentation                          | <a href="#">Instruction sheet</a>         |
| Catalogues                                  | <a href="#">Catalogues in PDF-format</a>  |
| Brochures                                   |                                           |

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**Zeichnungen**

**Electric symbol**

