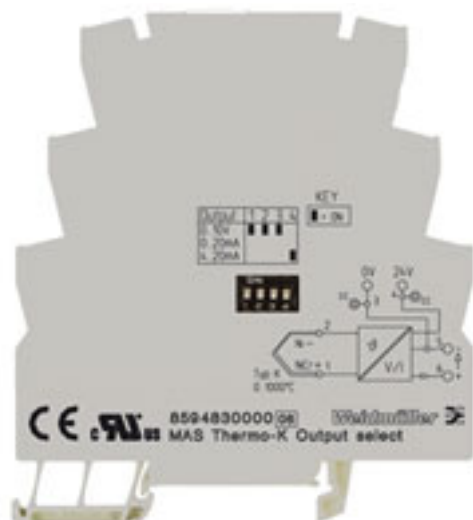


## MICROSERIES MAS Thermo-K 0...1000°C

**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 16  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
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www.weidmueller.com



The MAS/MAZ Thermo K/J signal isolating converters are built into a compact 6.1 mm MICROSERIES housing.

Conventional thermocouples can be connected to the input side, in accordance with IEC 584 type K or J. Calibrated DC current/voltage signals are available on the output. They can be selected using the DIP switches. The signal isolating converters are designed with a two-way isolation of 0.5 kV between the input and output. The 24 VDC power is supplied over the output circuit.

The converters are available with either screw or tension-clamp wire connection. The MI-A-PSM 24 VDC power supply module can be used with ZQV4N jumpers to cross-connect the 24 VDC supply voltage.

International approvals (such as ATEX Zone 2 and cULusEX C1D2) allow you to use this signal isolating converter in explosion-risk zones.

### General ordering data

|            |                            |
|------------|----------------------------|
| Order No.  | <a href="#">8594830000</a> |
| Type       | MAS Thermo-K 0...1000°C    |
| Version    | MICROSERIES, Thermocouple  |
| GTIN (EAN) | 4032248252466              |
| Qty.       | 1 pc(s).                   |

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## Technical data

### Dimensions

|        |         |       |        |
|--------|---------|-------|--------|
| Length | 88 mm   | Width | 6.1 mm |
| Height | 97.8 mm |       |        |

### Temperatures

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

### Probability of failure

|      |           |
|------|-----------|
| MTTF | 437 Years |
|------|-----------|

### Input

|                  |                                       |                         |             |
|------------------|---------------------------------------|-------------------------|-------------|
| Number of inputs | 1                                     | Temperature input range | 0...1000 °C |
| Sensor           | Thermocouple acc. to IEC 584, type: K |                         |             |

### Output

|                        |                              |                            |                  |
|------------------------|------------------------------|----------------------------|------------------|
| Wire break detection   | Output value: > 20 mA, >10 V | cold junction compensation | Yes              |
| load impedance voltage | ≥ 10 kΩ                      | Number of outputs          | 1                |
| load impedance current | ≤ 400 Ω @ 24 V               | Output voltage, note       | 0...10V / 0...5V |
| Output current         | 0(4)...20 mA                 |                            |                  |

### General data

|                    |                            |                                             |                                                        |
|--------------------|----------------------------|---------------------------------------------|--------------------------------------------------------|
| Accuracy           | < 0.6 % of measuring range | Current-carrying capacity of cross-connect. | ≤ 20 A                                                 |
| Galvanic isolation | 2-way isolator             | Input/Output                                | Thermocouple type: K / 0(4)...20 mA, 0...10 V, 0...5 V |
| Linearity          | Yes                        | Mounting rail                               | TS 35                                                  |
| Power consumption  | ca. 0.6 W                  | Step response time                          | < 0.7 s                                                |
| Supply voltage     | 24 V DC ± 10 %             | Temperature coefficient                     | ≤ 250 ppm/K of final value                             |
| Type of connection | Screw connection           |                                             |                                                        |

### Insulation coordination

|                                         |                                |                                           |                                    |
|-----------------------------------------|--------------------------------|-------------------------------------------|------------------------------------|
| Clearance & creepage distances          | ≥ 1.5 mm                       | EMC standards                             | EN 55011, EN 61000-6 /-2, EN 61326 |
| Impulse withstand voltage               | 1.5 kV                         | Insulation voltage                        | 500 V <sub>eff</sub> / 1 s         |
| Insulation voltage input or output/rail | 500 V <sub>eff</sub>           | Insulation voltage input or output/supply | 500 V <sub>eff</sub>               |
| Pollution severity                      | 2                              | Rated voltage                             | 100 V                              |
| Standards                               | DIN EN 50178, DIN EN 61000-4-2 | Surge voltage category                    | III                                |

### Classifications

|            |             |            |             |
|------------|-------------|------------|-------------|
| UNSPSC     | 30-21-18-01 | eClass 5.1 | 27-20-02-06 |
| eClass 6.0 | 27-20-02-06 |            |             |

### Approvals

|           |                     |
|-----------|---------------------|
| Approvals | CE; CULUS; GOSTME25 |
|-----------|---------------------|

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## Drawings

### Electric symbol

