

## MOS 24VDC/8-30VDC 2A E

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

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



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Compact and powerful solid-state relays in terminal block format

Saving space in the panel is becoming more and more important, and requires increasingly compact components. With the compact and powerful MICROOPTO solid-state relays, you benefit from our decades of experience in manufacturing products in terminal block format. The MICROOPTO family comprises high-quality solid-state relays for applicationspecific problem solving and delivers high performance in a width of just 6.1 mm. The wide range of accessories from plug-in cross-connections to end-to-end marking solutions makes it particularly versatile. Thanks to international approvals, they can be used worldwide. Reliable function is ensured by the integrated protective suppressor circuit for inputs and outputs. The wide MICROOPTO portfolio includes a range of solutions for special loads. For example, for inductive loads up to 10 A at 24 V DC or for DC loads up to 300 V. In addition, there are solutions for decoupling 5 V TTL inputs and outputs, for frequencies up to 550 kHz, as well as the single CO contact version for inverting signals.

### General ordering data

|            |  |
|------------|--|
| Version    | MICROOPTO, solid-state relays, 1 NO contact (Intelligent POWER MOS-FET), Rated control voltage: 24 V DC $\pm 20\%$ , Rated switching voltage: 8...30 V DC, Continuous current: 2 A, Screw connection |
| Order No.  | <a href="#">1283230000</a>   |
| Type       | MOS 24VDC/8-30VDC 2A E   |
| GTIN (EAN) | 4050118073430  |
| Qty.       | 10 pc(s).  |

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

|                |           |                 |            |
|----------------|-----------|-----------------|------------|
| Depth          | 97.8 mm   | Depth (inches)  | 3.85 inch  |
| Height         | 88.1 mm   | Height (inches) | 3.468 inch |
| Net weight     | 35.81 g   | Width           | 6.1 mm     |
| Width (inches) | 0.24 inch |                 |            |

**Temperatures**

|                     |   |                       |                |
|---------------------|---|-----------------------|----------------|
| Storage temperature | -40 °C...80 °C  | Operating temperature | -25 °C...60 °C |
| Humidity            | 5-95% relative humidity,<br>T <sub>u</sub> = 55°C, without condensation |                       |                |

**Probability of failure**

|      |           |
|------|-----------|
| MTTF | 847 Years |
|------|-----------|

**Environmental Product Compliance**

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

**Control side**

|                                |                    |                       |                                       |
|--------------------------------|--------------------|-----------------------|---------------------------------------|
| Power rating                   | ≤ 170 mW           | Protective circuit    | Varistor, Reverse polarity protection |
| Pull-in/drop-out voltage, typ. | 13.8 V / 13.6 V DC | Rated control voltage | 24 V DC ± 20 %                        |

**Load side**

|                           |                         |   |  |
|---------------------------|-------------------------|---|--|
| Continuous current        | 2 A                     | Leakage current                               | < 10 µA  |
| Load category             | LC A                    | Load side status indicator                    | LED green, output switched, LED red, short-circuit /overload at the output |
| Max. switching current    | 2 A                     | Min. switching current                        | 100 µA   |
| Nominal auxiliary voltage | 8...30 V DC / max. 6 mA | Protective circuit, load side                 | Varistor, Free-wheeling diode  |
| Rated switching voltage   | 8...30 V DC             | Short-circuit-proof                           | Yes (thermal cut-out)  |
| Switch-off delay          | < 0.5 ms                | Switch-on delay                               | 0.1 ms   |
| Voltage drop at max. load | ≤ 50 mV                 | max. switching frequency (DC control voltage) | 10 Hz  |

**Contact data**

|              |  |
|--------------|--|
| Contact type | 1 NO contact (Intelligent POWER MOS-FET) |
|--------------|--|

**General data**

|                                    |  |           |         |                          |     |
|------------------------------------|--|-----------|---------|--------------------------|-----|
| Rail                               | TS 35  |           |         |                          |     |
| Colour                             | black  |           |         |                          |     |
| UL 94 flammability rating          | V-0  |           |         |                          |     |
| UL94 flammability rating component | <table border="1"> <tr> <td>Component</td> <td>Housing</td> </tr> <tr> <td>UL94 flammability rating</td> <td>V-0</td> </tr> </table> | Component | Housing | UL94 flammability rating | V-0 |
| Component                          | Housing  |           |         |                          |     |
| UL94 flammability rating           | V-0  |           |         |                          |     |

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**Technical data****Insulation coordination**

|  |                               |                                      |                               |
|--|-------------------------------|--------------------------------------|-------------------------------|
| Dielectric strength for control side - load side | 350 V <sub>eff</sub> / 1 min. | Dielectric strength to mounting rail | 350 V <sub>eff</sub> / 1 min. |
| Impulse withstand voltage                        | 500 V (1,2/50 µ)              | Pollution severity                   | 2                             |
| Protection degree                                | IP20                          | Rated voltage                        | 30 V                          |
| Surge voltage category                           | III                           |                                      |                               |

**Further details of approvals / standards**

|                             |              |                         |            |
|-----------------------------|--------------|-------------------------|------------|
| Standards                   | DIN EN 50178 | Certificate No. (DNVGL) | TAE000033E |
| Certificate No. (GERMLLOYD) | 54853-08     |                         |            |

**Connection data**

|   |                     |   |                     |
|---|---------------------|---|---------------------|
| Wire connection method  | Screw connection    | Stripping length, rated connection  | 7 mm                |
| Tightening torque, min.   | 0.4 Nm              | Tightening torque, max.   | 0.6 Nm              |
| Clamping range, rated connection  | 2.5 mm <sup>2</sup> | Clamping range, min.  | 0.5 mm <sup>2</sup> |
| Clamping range, max.  | 4 mm <sup>2</sup>   | Wire cross-section, solid, min.   | 0.5 mm <sup>2</sup> |
| Wire cross-section, solid, max.   | 4 mm <sup>2</sup>   | Wire connection cross section, finely stranded, min.                                    | 0.5 mm <sup>2</sup> |
| Wire connection cross section, finely stranded, max.                                    | 2.5 mm <sup>2</sup> | Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min. | 0.5 mm <sup>2</sup> |
| Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max. | 1.5 mm <sup>2</sup> | Conductor cross-section, flexible, AEH (DIN 46228-1), min.                              | 0.5 mm <sup>2</sup> |
| Conductor cross-section, flexible, AEH (DIN 46228-1), max.                              | 1.5 mm <sup>2</sup> | Blade size  | 0.6 x 3.5 mm        |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC001504    | ETIM 7.0    | EC001504    |
| ECLASS 9.0  | 27-37-16-04 | ECLASS 9.1  | 27-37-16-04 |
| ECLASS 10.0 | 27-37-16-04 | ECLASS 11.0 | 27-37-16-04 |

**Important note**

|                     |   |
|---------------------|---|
| Product information | The cable lengths must not exceed 30 m. |
|---------------------|---|

**Approvals**

Approvals



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

**Downloads**

|   |   |
|---|---|
| Approval/Certificate/Document of Conformity | <a href="#">EU Konformitätserklärung / EU Declaration of Conformity</a> |
| Engineering Data                            | <a href="#">STEP</a>  |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>  |
| User Documentation                          | <a href="#">Beipackzettel / Package Insert - multilingual</a>           |

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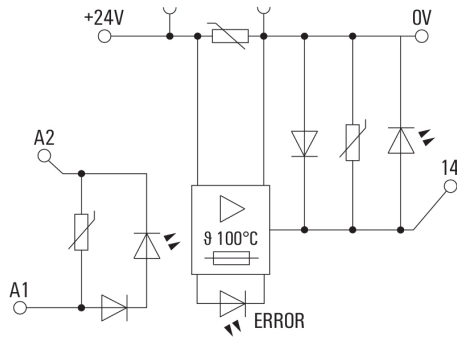
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**Drawings**

**Wiring diagram**



**Dimensional drawing**

