

**MICROOPTO  
MOS 24VDC/8-30VDC 2A****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-292083

www.weidmueller.com



The MICROOPTO SOLENOID solid-state relay is used especially as a switching amplifier for actuators up to 24 V DC and 10 A with inductive loads such as solenoid valves and contactors. 3-wire actuators can be connected directly to the module.

This is short-circuit proof and protected against application-related transients and spikes by extensive protective circuitry.

**General ordering data**

|            |                                                                                                                                                                                                      |
|------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Type       | MOS 24VDC/8-30VDC 2A                                                                                                                                                                                 |
| Order No.  | <a href="#">8937970000</a>                                                                                                                                                                           |
| 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 |
| GTIN (EAN) | 4032248716203                                                                                                                                                                                        |
| Qty.       | 1 pc(s).                                                                                                                                                                                             |

# MICROOPTO

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

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

## Technical data

### Dimensions and weights

|            |         |                 |            |
|------------|---------|-----------------|------------|
| Width      | 6.1 mm  | Width (inches)  | 0.24 inch  |
| Height     | 88.1 mm | Height (inches) | 3.468 inch |
| Depth      | 97 mm   | Depth (inches)  | 3.819 inch |
| Net weight | 35.81 g |                 |            |

### Temperatures

|                             |                                                                                |                             |                |
|-----------------------------|--------------------------------------------------------------------------------|-----------------------------|----------------|
| Humidity                    | 5-95% relative humidity,<br>$T_u = 55^\circ\text{C}$ , without<br>condensation | Operating temperature, max. | 60 °C          |
| Operating temperature, min. | -25 °C                                                                         | Storage temperature, max.   | 80 °C          |
| Storage temperature, min.   | -40 °C                                                                         | Operating temperature       | -25 °C...60 °C |
| Storage temperature         | -40 °C...80 °C                                                                 |                             |                |

### Probability of failure

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

### Environmental Product Compliance

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

### Control side

|                          |                    |                    |                                          |
|--------------------------|--------------------|--------------------|------------------------------------------|
| Rated control voltage    | 24 V DC $\pm 20\%$ | Power rating       | $\leq 170\text{ mW}$                     |
| Cut-in / dropout voltage | 13.8 V / 13.6 V DC | Protective circuit | Varistor, Reverse polarity<br>protection |

### Load side

|                                                  |                                                                                       |                               |                                  |
|--------------------------------------------------|---------------------------------------------------------------------------------------|-------------------------------|----------------------------------|
| Rated switching voltage                          | 8...30 V DC                                                                           | Continuous current            | 2 A                              |
| Max. switching current                           | 4 A                                                                                   | Load category                 | LC A                             |
| Switch-on delay                                  | 0.1 ms                                                                                | Switch-off delay              | < 0.5 ms                         |
| Voltage drop at max. load                        | $\leq 50\text{ mV}$                                                                   | Leakage current               | < 10 $\mu\text{A}$               |
| Min. switching current                           | 100 $\mu\text{A}$                                                                     | Short-circuit-proof           | Yes (thermal cut-out)            |
| Load side status indicator                       | LED green, output<br>switched, LED red, short-<br>circuit / overload at the<br>output | Protective circuit, load side | Varistor, Free-wheeling<br>diode |
| max. switching frequency (DC control<br>voltage) | 125 Hz                                                                                | Nominal auxiliary voltage     | 8...30 V DC / max. 6 mA          |

### Contact data

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

### General data

|         |                                     |                           |       |
|---------|-------------------------------------|---------------------------|-------|
| Version | with functional earth<br>connection | Rail                      | TS 35 |
| Colour  | black                               | UL 94 flammability rating | V-0   |

**MICROOPTO  
MOS 24VDC/8-30VDC 2A**

**Weidmüller Interface GmbH & Co. KG**  
 Klingenbergstraße 26  
 D-32758 Detmold  
 Germany  
 Fon: +49 5231 14-0  
 Fax: +49 5231 14-292083  
 www.weidmueller.com

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

|                                      |                               |                                                  |                               |
|--------------------------------------|-------------------------------|--------------------------------------------------|-------------------------------|
| Rated voltage                        | 30 V                          | Pollution severity                               | 2                             |
| Surge voltage category               | III                           | 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)              |
| Protection degree                    | IP20                          |                                                  |                               |

**Further details of approvals / standards**

|                         |                                                   |                             |          |
|-------------------------|---------------------------------------------------|-----------------------------|----------|
| Standards               | DIN EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508 | Certificate No. (GERMLLOYD) | 54853-08 |
| Certificate no. (cULus) | E141197                                           |                             |          |

**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 | UNSPSC     | 30-21-18-01 |

**Product information**

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

**Approvals**

Approvals



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

### **MICROOPTO MOS 24VDC/8-30VDC 2A**

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

Fon: +49 5231 14-0

Fax: +49 5231 14-292083

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

## Technical data

### Downloads

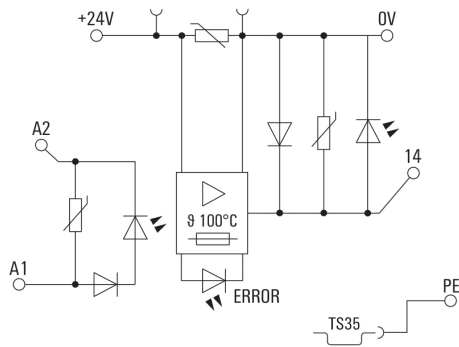
|                                             |                                          |
|---------------------------------------------|------------------------------------------|
| Approval/Certificate/Document of Conformity | <a href="#">DE_PA5600_160302_001.pdf</a> |
| Brochure/Catalogue                          | <a href="#">CAT 4.2 ELECTR 18/19 EN</a>  |
| Engineering Data                            | <a href="#">EPLAN, WSCAD</a>             |
| Engineering Data                            | <a href="#">STEP</a>                     |
| User Documentation                          | <a href="#">Operating Instructions</a>   |

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

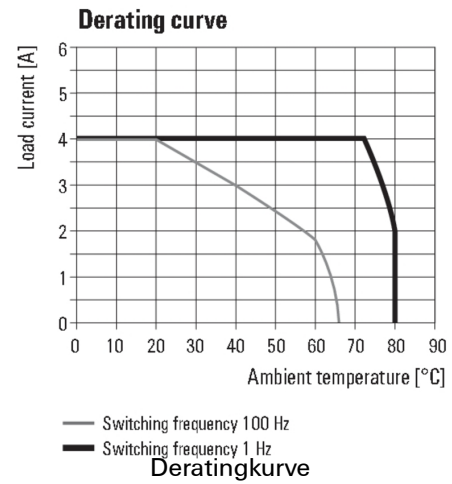
**Weidmüller Interface GmbH & Co. KG**  
Klingenbergstraße 26  
D-32758 Detmold  
Germany  
Fon: +49 5231 14-0  
Fax: +49 5231 14-292083  
www.weidmueller.com

## Drawings

### Wiring diagram



### Graph



### Dimensional drawing

