

MOS 24VDC/5-48VDC 0,5A**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

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 application-specific 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 relay, Rated control voltage: 24 V DC $\pm 20\%$, Rated switching voltage: 5...48 V DC, Continuous current: 500 mA, Screw connection
Order No.	8937980000
Type	MOS 24VDC/5-48VDC 0,5A
GTIN (EAN)	4032248716210
Qty.	1 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
Width	6.1 mm	Width (inches)	0.24 inch
Net weight	34 g		

Temperatures

Storage temperature	-40 °C...60 °C	Operating temperature	-25 °C...60 °C
Humidity	5 - 93% rel. humidity, Tu = 40°C, no condensation		

Probability of failure

MTTF	620 Jahre
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Control side

Rated control voltage	24 V DC $\pm$ 20 %	Power rating	160 mW
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection
Input frequency	1 kHz		

Load side

Rated switching voltage	5...48 V DC	Continuous current	0.5 A
Rated switching current	500 mA	Load category	LC A
Switch-on delay	<30 μ s	Switch-off delay	<50 μ s
Voltage drop at max. load	Max. 1 V	Leakage current	<1.5 mA
Short-circuit-proof	No	Protective circuit, load side	Free-wheeling diode
Contact type	1 CO contact (Transistor)	max. switching frequency (DC control voltage)	1 kHz

General data

Rail	TS 35				
Colour	black				
UL 94 flammability rating	V-0				
UL94 flammability rating component	<table> <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				

Insulation coordination

Rated voltage	300 V	Pollution severity	2
Surge voltage category	III	Clearance and creepage distances for control side - load side	> 3 mm
Dielectric strength for control side - load side	3 kV _{eff} / 1 Min.	Dielectric strength to mounting rail	4 kV _{eff} / 1 Min.
Impulse withstand voltage	4 kV (1.2/50 μ s)	Protection degree	IP20

Further details of approvals / standards

Certificate No. (DNV)	TAE000033E	Certificate no. (cULus)	E141197
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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 ²	Clamping range, min.	0.5 mm ²
Clamping range, max.	4 mm ²	Wire cross-section, solid, min.	0.5 mm ²
Wire cross-section, solid, max.	4 mm ²	Wire connection cross section, finely stranded, min.	0.5 mm ²
Wire connection cross section, finely stranded, max.	2.5 mm ²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm ²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm ²	Conductor cross-section, flexible, AEH (DIN 46228-1), min.	0.5 mm ²
Conductor cross-section, flexible, AEH (DIN 46228-1), max.	1.5 mm ²	Blade size	0.6 x 3.5 mm

Classifications

ETIM 6.0	EC001504	ETIM 7.0	EC001504
ETIM 8.0	EC001504	ETIM 9.0	EC001504
ETIM 10.0	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	ECLASS 12.0	27-37-16-04
ECLASS 13.0	27-37-16-04	ECLASS 14.0	27-37-16-04
ECLASS 15.0	27-37-16-04		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	7a, 7cl
REACH SVHC	Lead 7439-92-1
SCIP	d32f8e61-6733-45d6-9062-c95f9903aad6

Important note

Product information	The cable lengths must not exceed 30 m.
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Approvals

Approvals



Approvals MAMID	https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/ https://mdcop.weidmueller.com/mediadelivery/rendition/900_319260/-T1z1mm-S800/
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

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Technical data

Downloads

Approval/Certificate/Document of Conformity

[EU Konformitätserklärung / EU Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

User Documentation

[Beipackzettel / Package Insert – multilingual](#)

Catalogues

[Catalogues in PDF-format](#)

Brochures

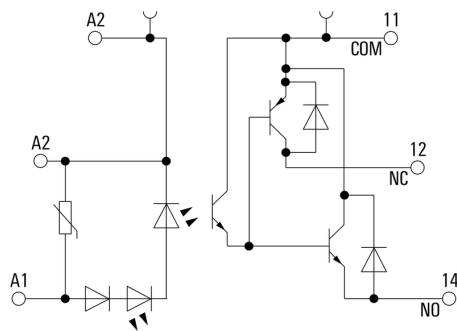
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Drawings

Wiring diagram



Dimensional drawing

