Data sheet

MOS 5VTTL/24VDC 0,1A

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: 5 V TTL , Rated switching voltage: 24 VDC ±20%, Continuous current: 100 mA, Screw connection
Order No.	8937920000
Type	MOS 5VTTL/24VDC 0,1A
GTIN (EAN)	4032248716159
Qty.	1 items

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Technical data

Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E141197

Dimensions and weights

Depth	97.8 mm	Depth (inches)	3.8504 inch
Height	88.1 mm	Height (inches)	3.4685 inch
Width	6.1 mm	Width (inches)	0.2402 inch
Net weight	34.8 g		

Temperatures

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

Probability of failure

MTTF	1686 a

Environmental Product Compliance

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

Control side

Rated control voltage	5 V TTL	Rated control voltage (control input)	5 V TTL
Nominal control current	<100 µA	Power rating	<0.5 mW
Status indicator	Green LED	Protective circuit	Varistor, Reverse polarity protection
Input frequency	100 kHz	Nominal auxiliary voltage	5 V DC ± 5 % / HIGH: max. 9 mA, LOW: max 400 µA

Load side

Rated switching voltage	24 VDC ±20%	Continuous current	0.1 A
Rated switching current	100 mA	Load category	LC A
Switching voltage (DC), max.	33 V	Switch-on delay	<1.3 µ
Switch-off delay	<1 µs	Voltage drop at max. load	<1 V
Leakage current	<20 µA	Short-circuit-proof	No
Protective circuit, load side	Free-wheeling diode	Contact type	1 NO contact (Bipolar transistor)
Switching frequency (control voltage DC), max.	100 kHz	Nominal auxiliary voltage	24 V DC ± 20 % / max. 110 mA

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General data

Mounting rail	TS 35	
Colour	black	
UL 94 flammability rating	V-0	
UL94 flammability rating component	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 KVeff / 1 Min.	Dielectric strength to mounting rail	4 kVeff / 1 Min.
Impulse withstand voltage	4 kV (1.2/50 µs)	Protection degree	IP20

Further details of approvals / standards

Certificate No. (DNV)	TAE000033E	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 mm²	Conductor cross-section (rated connection), min.	0.5 mm²
Conductor cross-section (rated connection), max.	4 mm²	Wire cross-section, solid, min.	0.5 mm²
Wire cross-section, solid, max.	4 mm²	Wire connection cross section, finely stranded, min.	0.5 mm²
Wire connection cross-section, finely stranded, max.	2.5 mm²	Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, min.	0.5 mm²
Wire connection cross-section, finely stranded with wire-end ferrules DIN 46228/4, max.	1.5 mm²	Conductor cross-section, flexible with wire end ferrule (DIN 46228-1), min.	0.5 mm²
Conductor cross-section, flexible with wire end ferrule (DIN 46228-1), max.	1.5 mm²	Blade size	0.6 x 3.5 mm

Important note

Product information	The cable lengths must not exceed 30 m.

Classifications

ETIM 8.0	EC001504	ETIM 9.0	EC001504
ETIM 10.0	EC001504	ECLASS 14.0	27-37-16-04
ECLASS 15.0	27-37-16-04		

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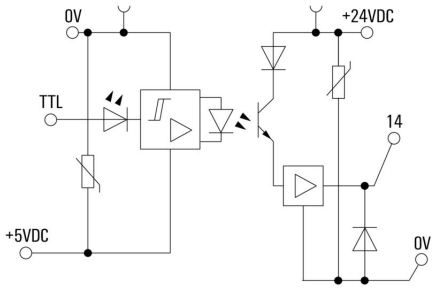
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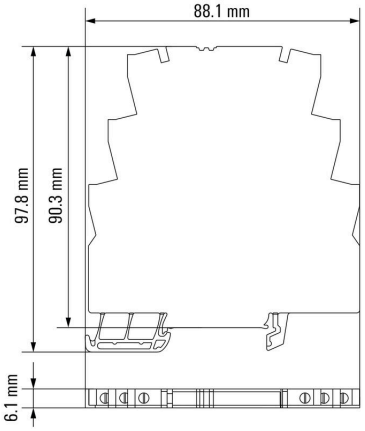
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Drawings

Wiring diagram



Dimensional drawing



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