



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



## Signal isolator - MACX MCR-EX-SL-SD-23-48-LFD-SP - 2924870

Please be informed that the data shown in this PDF Document is generated from our Online Catalog. Please find the complete data in the user's documentation. Our General Terms of Use for Downloads are valid (<http://phoenixcontact.com/download>)



Ex i solenoid driver for controlling Ex i solenoid valves in the Ex area, current limitation at 48 mA, logic input, line fault transparency, and with error message output up to SIL 3 according to IEC 61508; spring-cage connection

### Product Features



### Key commercial data

Packing unit	1 pc
Custom tariff number	85437090
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area
-------------------------	---

#### Dimensions

Width	12.5 mm
Height	99 mm
Depth	114.5 mm

#### Ambient conditions

Ambient temperature (operation)	-20 °C ... 60 °C (Any mounting position)
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Maximum altitude	≤ 2000 m
Permissible humidity (operation)	10 % ... 95 % (non-condensing)
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Degree of protection	IP20

#### Output data

Output characteristic curve: Output resistor	≥ 269 Ω (Internal resistance R <sub>i</sub> )
--	---

# Signal isolator - MACX MCR-EX-SL-SD-23-48-LFD-SP - 2924870

## Technical data

### Output data

Response time	< 30 ms
---------------	---------

### Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC ... 30 V DC (24 V DC (-20% ... +25%))
Power consumption	< 1.8 W

### Connection data

Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	1.5 mm <sup>2</sup>
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	1.5 mm <sup>2</sup>
Conductor cross section AWG min.	24
Conductor cross section AWG max.	16
Stripping length	8 mm
Connection method	Push-in connection

### General

Status display	Green LED (supply voltage)
	LED yellow (switching state)
	Red LED (line errors)
Inflammability class according to UL 94	V0
Pollution degree	2
Surge voltage category	II
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Emitted interference	EN 61000-6-4
Housing material	PA 66-FR
Color	green
Designation	Input/output, supply, error message output
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
	300 V <sub>rms</sub> (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1))
	2.5 kV (50 Hz, 1 min., test voltage)
Designation	Output/input
Electrical isolation	630 V (U <sub>DC</sub> according to EN 60079-15)
Designation	Output/supply, DIN rail connector
Electrical isolation	375 V (Peak value in accordance with EN 60079-11)
	300 V <sub>rms</sub> (Rated insulation voltage (surge voltage category II; pollution degree 2, safe isolation as per EN 61010-1))

# Signal isolator - MACX MCR-EX-SL-SD-23-48-LFD-SP - 2924870

## Technical data

### General

	2.5 kV (50 Hz, 1 min., test voltage)
Designation	Output/supply
Electrical isolation	630 V ( $U_{DC}$ according to EN 60079-15)
Designation	Input/error message output/supply
Electrical isolation	1.5 kV (50 Hz, 1 min., test voltage)
Conformance	CE-compliant, additionally EN 61326
ATEX	# II (1) G [Ex ia Ga] IIC/IIB
	# II (1) D [Ex ia Da] IIIC
	# II 3(1) G Ex nA [ia Ga] IIC T4 Gc X
IECEX	[Ex ia Ga] IIC/IIB
	[Ex ia Da] IIIC
	Ex nA [ia Ga] IIC T4 Gc
UL, USA / Canada	UL 61010 Listed
Functional Safety (SIL)	SIL 3

### Safety data

Max. internal inductance $L_i$	negligible
Max. internal capacitance $C_i$	11 nF
Max. output voltage $U_o$	25.3 V
Max. output current $I_o$	94 mA
Max. output power $P_o$	595 mW
Group	IIC
Max. external inductivity $L_o$	3 mH
Max. external capacity $C_o$	95 nF
Group	IIB
Max. external inductivity $L_o$	12 mH
Max. external capacity $C_o$	810 nF
Group	IIA
Max. external inductivity $L_o$	24 mH
Max. external capacity $C_o$	2750 nF
Safety-related maximum voltage $U_m$	253 V AC/DC

## Classifications

### eCl@ss

eCl@ss 4.0	27210121
eCl@ss 4.1	27210121

# Signal isolator - MACX MCR-EX-SL-SD-23-48-LFD-SP - 2924870

## Classifications

### eCl@ss

eCl@ss 5.0	27210121
eCl@ss 5.1	27210121
eCl@ss 6.0	27210121
eCl@ss 7.0	27210121
eCl@ss 8.0	27210121

### ETIM

ETIM 3.0	EC001599
ETIM 4.0	EC001599
ETIM 5.0	EC001599

### UNSPSC

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

## Approvals

### Approvals

---

#### Approvals

UL Listed / cUL Listed / Functional Safety / cULus Listed

---

#### Ex Approvals

IECEX / ATEX / UL Listed / cUL Listed / EAC Ex / cULus Listed

---

#### Approvals submitted

---

### Approval details

UL Listed
-----------

## Signal isolator - MACX MCR-EX-SL-SD-23-48-LFD-SP - 2924870

### Approvals

