


# MACX MCR-EX-SL-SD-23-48-LFD-SP

Order No.: 2924870



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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

Commercial data	
EAN	4  046356 635004
Note	Made-to-order
sales group	H723
Pack	1 Pcs.
Customs tariff	85437090
Gross weight in pieces	0.1556 KG
Net weight per piece	0.10 KG
Catalog page information	Page 179 (C-7-2013)

#### Product notes

WEEE/RoHS-compliant since: 04/02/2013



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Technical data	
<b>Dimensions</b>	
Width	12.5 mm
Height	99 mm
Depth	114.5 mm
<b>Ambient conditions</b>	
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 % (no condensation)
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> )
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	< 1.5 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 stranded min.	0.2 mm <sup>2</sup>
Conductor cross section stranded max.	1.5 mm <sup>2</sup>
Conductor cross section AWG/kcmil min.	24
Conductor cross section AWG/kcmil max	16
Stripping length	8 mm
Connection method	Spring-cage conn.

#### 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
Electrical isolation of output/input	630 V (U <sub>DC</sub> according to EN 60079-15)

Electrical isolation output / supply	630 V ( $U_{DC}$ according to EN 60079-15)
Electrical isolation of output/supply, T connector	375 V (Peak value in accordance with EN 60079-11)
Conformance	CE-compliant, additionally EN 61326
ATEX	Ex II (1) G [Ex ia Ga] IIC
	Ex II (1) D [Ex ia Da] IIIC
	Ex II 3(1) G Ex nA [ia Ga] IIC T4 Gc X
IECEX	[Ex ia Ga] IIC
	[Ex ia Da] IIIC
	Ex nA IIC T4 Gc
Functional safety (SIL)	SIL 3 (applied for)

#### Safety data

Output voltage $U_o$	$\leq 25.3$ V
Output current $I_o$	$\leq 94$ mA
Output power $P_o$	$\leq 595$ mW
Gas group	IIC
Max. external inductivity $L_o$	3 mH
Max. external capacity $C_o$	95 nF
Safety-related maximum voltage $U_m$	253 V
Gas group	IIB
Max. external inductivity $L_o$	12 mH
Max. external capacity $C_o$	810 nF

#### Certificates / Approvals

Certification

Certifications applied for:

Certification Ex:

#### Accessories

Item	Designation	Description
<b>General</b>		
2865625	MACX MCR-PTB	Power and error message module
2924184	MACX MCR-PTB-SP	Power and error message module, spring-cage terminal blocks

2869728	ME 6,2 TBUS-2 1,5/5-ST-3,81 GN	DIN rail connector for DIN rail mounting. Universal for T-BUS housing. Gold-plated contacts, 5-pos.
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**Address**

PHOENIX CONTACT Deutschland GmbH  
Flachmarktstr. 8  
32825 Blomberg, Germany  
Phone +49 5235 3 12000  
Fax +49 5235 3 41200  
<http://www.phoenixcontact.com>



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