

Ex i Relay module Series 8510



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- > For use in Ex e enclosure
- > Galvanic isolation between inputs and outputs



14411E00

Zone	ATEX / IECEx					
	0	1	2	20	21	22
For use in		x	x			

E9

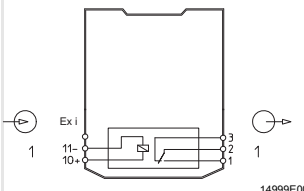
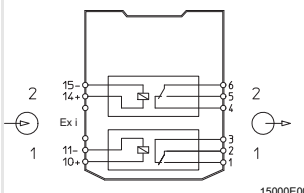
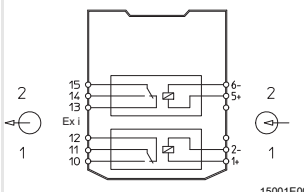
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WebCode 8510W

Ex i Relay module

Series 8510

Selection Table

Version	Schematic	Fitted device	Order number	Weight kg
1 channel, 1 change-over contact (250 V / 4 A)		9172/10-11-00	8510 / 122-06-600-00	1.470
2 channel, 1 change-over contact (250 V / 4 A)		9172/20-11-00	8510 / 122-06-601-00	1.470
2 channel, 1 change-over contact (125 V / 4 A)		9172/21-11-00	8510 / 122-06-602-00	1.470

Explosion Protection

Explosion protection

Global (IECEX)

Gas

IECEX BVS 07.0029U
Ex d e IIC, Ex d e I

Europe (ATEX)

Gas

DMT 00 ATEX E 073 U
⊕ II 2G Ex d e IIC
⊕ I M2 Ex d e I

Certifications and certificates

Certificates

ATEX, IECEX, Belarus (operating authorisation)

Technical Data

Ambient conditions

Ambient temperature

Storage

-40 ... +80 °C

Operation at Uc

-20 ... +40 °C

Mechanical data

Material

Enclosure material

Epoxy resin

Terminal cover

Polyamide; IP20, finger-contact safety according to IEC/EN 60529

Conductor cross-section

Main contacts

1,5 ... 6 mm² flexible
1,5 ... 10 mm² solid

Auxiliary contacts

0,75 ... 1,5 mm² flexible
0,75 ... 2,5 mm² solid

Device version

Design

9172/10-11-00

9172/20-11-00

9172/21-11-00

Installed in

8510/122-06-600-00

8510/122-06-601-00

8510/122-06-602-00

Safety data

Max. voltage U_i

30 V

30 V

AC 125 V DC 125 V AC 60 V DC 30 V

Max. current I_i

150 mA

150 mA

4 A 0.25 A 0.3 A 4 A

Max. power P_i

1.3 W

1.3 W

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Internal capacitance C_i

negligible

negligible

negligible

Internal inductance L_i

negligible

negligible

negligible

Insulation voltage U_m

253 V

253 V

253 V

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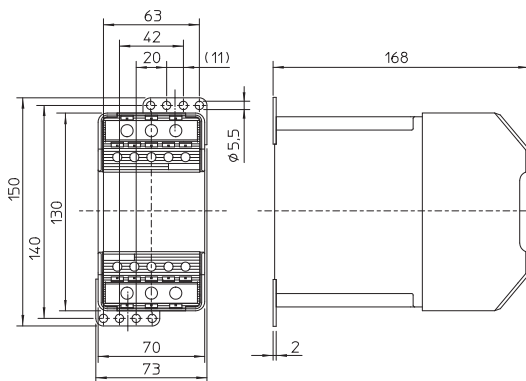


Electrical data

Auxiliary power			
Supply	without	without	without
Max. power losses per channel	0.4 W	0.4 W	0.4 W
Input			
Input signal	Ex i	Ex i	non-Ex i
Switching signal	12 ... 30 V	12 ... 30 V	12 ... 31.2 V
Current consumption	< 16 mA at 12 V < 11 mA at 24 ... 30 V	< 16 mA at 12 V < 11 mA at 24 ... 30 V	< 16 mA at 12 V < 11 mA at 24 ... 31.2 V
Output			
Version	1 change-over contact	1 change-over contact	Ex i, 1 change-over contact
Minimum load	5 V / 5 mA	5 V / 5 mA	5 V / 5 mA
Maximum load DC	220 V / 0.1 A 125 V / 0.25 A 60 V / 0.3 A 30 V / 4 A	220 V / 0.1 A 125 V / 0.25 A 60 V / 0.3 A 30 V / 4 A	125 V / 0.25 A 60 V / 0.3 A 30 V / 4 A
Maximum load AC	250 V / 4 A cos $\varphi > 0.7$	250 V / 4 A cos $\varphi > 0.7$	125 V / 4 A cos $\varphi > 0.7$
Max. switching capacity	100 W / 100 VA	100 W / 100 VA	50 W / 100 VA
Electrical service life			
Resistive load	$\geq 1 \times 10^5$ operating cycles	$\geq 1 \times 10^5$ operating cycles	$\geq 1 \times 10^5$ operating cycles
Mechanical service life			
	$\geq 1 \times 10^7$ operating cycles	$\geq 1 \times 10^7$ operating cycles	$\geq 1 \times 10^7$ operating cycles
Maximum switching frequency	≤ 15 Hz	≤ 15 Hz	≤ 15 Hz
Switching delay ON / OFF	≤ 10 ms	≤ 10 ms	≤ 10 ms
Switching delay OFF / ON	≤ 10 ms	≤ 10 ms	≤ 10 ms
Galvanic separation			
Test voltage under regulations EN 50020			
Ex i input to output	1.5 kV AC	1.5 kV AC	1.5 kV AC
Ex i inputs interconnected	500 V AC	500 V AC	350 V AC
Outputs to each other	1.1 kV AC	1.1 kV AC	--
Electromagnetic compatibility	Tested under the following standards and regulations: EN 61326-1 (Use in industrial environment) NAMUR NE 21		

E9

Dimensional Drawings (All Dimensions in mm) - Subject to Alterations



8510/122

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We reserve the right to make alterations to the technical data, dimensions, weights, designs and products available without notice. The illustrations cannot be considered binding.

E9