



# SLO24COA

## Plug-in relay for DC-loads

1 CO contact (solid state, MOSFET)

### Main data

Nominal load voltage	250 V DC
Nominal input voltage	24 V DC
Rated load current	0,8 A
Warranty	10 years

### Control circuit

Input voltage max.	32 V DC
Switch-on voltage	15 V DC
Switch-off voltage	12 V DC
Power consumption	216 mW
Input impedance	2,4 kΩ

### Load circuit

Load current range	0 - 0,8 A, no minimum load required
Load voltage range	0 - 265 V DC, no minimum load required
Inrush current	12 A, 10 ms
Leakage current	1 mA
Voltage drop	0,4 V
Max. inductive load, L/R	80 ms (24 V / 0,8 A)
Switch-on time	0,5 ms
Switch-off time	0,5 ms

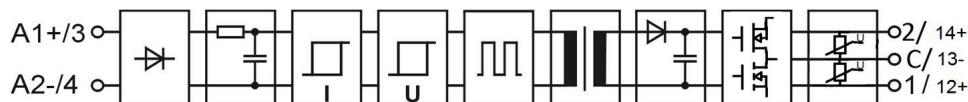
### Insulation

Insulation method	Pulse transformer (an unique feature for Delcon relay compared to opto)
Test voltage input/output	4600 V AC <sub>rms</sub> / 1 s
Overvoltage category	III
Pollution degree	2
Air/creepage distance I/O	8 mm

### General data

Conductor size, screw terminal	2,5 mm <sup>2</sup>
Conductor size, spring terminal	0,75 - 2,5 mm <sup>2</sup>
Operating temperature	-40 °C to +70 °C
Weight	40 g
Housing material flammability	UL 94 V-0
Package size	10, 50 and 100

### Additional features



Delcon uses a pulse transformer instead of optocoupler for transmission of the signal from the primary to the secondary side and to provide 4600 VAC galvanic isolation between the field and controller side of the relay.

This design is radically different from optocoupler relays and modules in which the energy for the switching circuit is taken from the load circuit, which leads to many drawbacks such as minimum load requirement, leakage current and sensitivity to load line spikes.



Suppression circuits and both voltage and current hysteresis on a signal sides to ensure that they work correctly in industrial areas with high interference levels originated by cable capacitance

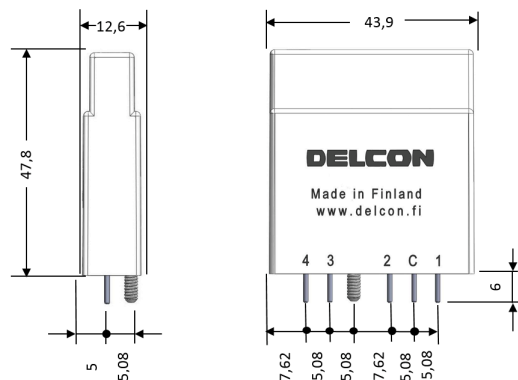


Built-in protection (varistor, diode, RC-circuit etc. depended on the relay type) for the switching component to extend reliability and life time even more

### Standard accessories

DIN-rail base, screw terminals MOS1CO

### Dimensions



### Approvals, conformities

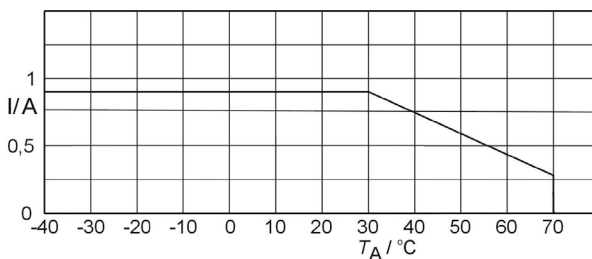


Fulfills main requirements of the EMC-directive **2014/30/EU** and low voltage directive (LVD) **2014/35/EU**. The relay has been designed to operate correctly with difficult loads in disturbed environments. Thus, it does not meet the conducted emission for 150 kHz...2 MHz.



UL certificate 20161220-E162828, Power Conversion Equipment, UL508 & CAN/CSA C22.2 No. 14-10

### Derating

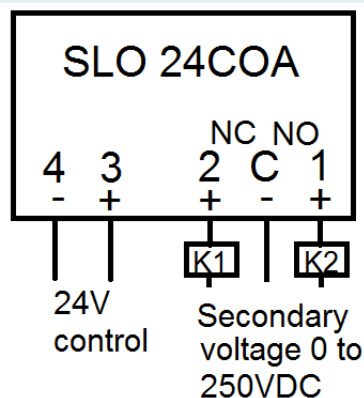


Allowed load is derated to 1/3 linearly from +30 °C to +70 °C ambient temperature. When relays are mounted together as a bank the maximum load current for long period of time should be restricted in total to 50 % of the current from the curve. I.e. all relays at 50 % load continuously or 50 % of the relays at 100 % load continuously or all relays at 100 % load 50 % of the time. This restriction does not apply if there is at least 12,5 mm gap between relays. These deratings apply when assembled to the horizontal rail. If assembled to the vertical rail, must be taken care that the relays do not heat up too much.





## Wiring diagram



## Derating when switching inductive loads

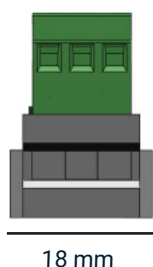
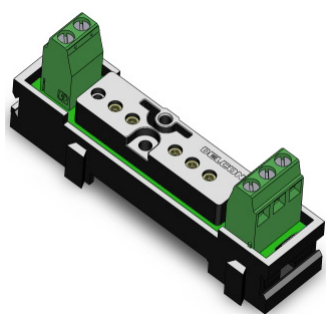
This relay is meant for resistive and inductive loads. The surge current is not allowed to exceed the specification. For reasons of heat dissipation, when the load will be switched frequently, the average current over a reasonable time should not exceed the specification for continuous operation.

Maximum inductances (L/R values) and switching frequency at L/R value. If the L/R value is for instance 0,1 x L/R max, allowed switching frequency is 10 Hz.

## Guarantee

This solid state I/O relay type made by Delcon Oy is guaranteed free from design and manufacturing defects for a period of 10 years from the manufacturing date. The guarantee liability is limited to replacement of defective material and related shipping charges. Defective products must be returned to the manufacturer for evaluation. This guarantee does not cover damage due to incorrect use or electrical overload.

## Din-rail socket



## Assembly

Long lifetime and our 10 year guarantee requires that proper cooling of the relays is ensured. Therefore, all relays with MOS 1\*\*\* DIN-rail sockets and all MBS 8/16\*\*\* mounting bases are strongly recommended to be installed to the horizontal rail.

## Fusing

To protect relay against short circuit and overload a fast fuse with the correct rating for the load and the capacity of the relay should be chosen. Note that when overload current is not large it is possible that the fuse will not protect the relay because of the tolerance on the fuse rating.