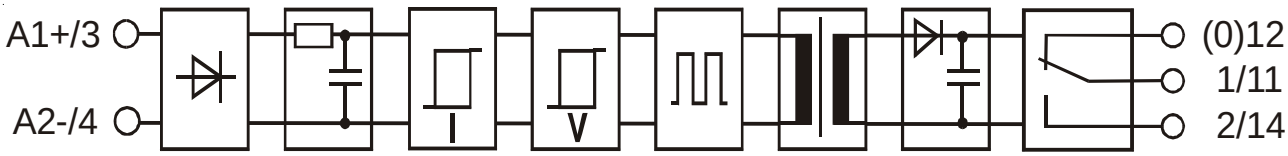
SL-series solid state output relay

- DIN-rail output relay for AC loads
- 0,15 A continuous current
- 0...240 VAC/250 VDC nominal load voltage
- Solid state construction
- Change over, break before make
- Status LED
- Immune to disturbances on signal lines
- Shielded signal cabling not required
- CE (EMC and LVD tested)

Block diagram



Specifications (at temperature of 25 °C)

Primary

Input voltage	nominal	24 VDC
Input current at	typical	12 mA
nominal voltage	maximum	15 mA
Input voltage	minimum	18 VDC
range (abs.)	maximum	32 VDC
Input impedance	typical	2 kΩ
Switch-on voltage	typical	16 VDC
	maximum	18 VDC
Switch-off voltage	typical	14 VDC
	minimum	12 VDC

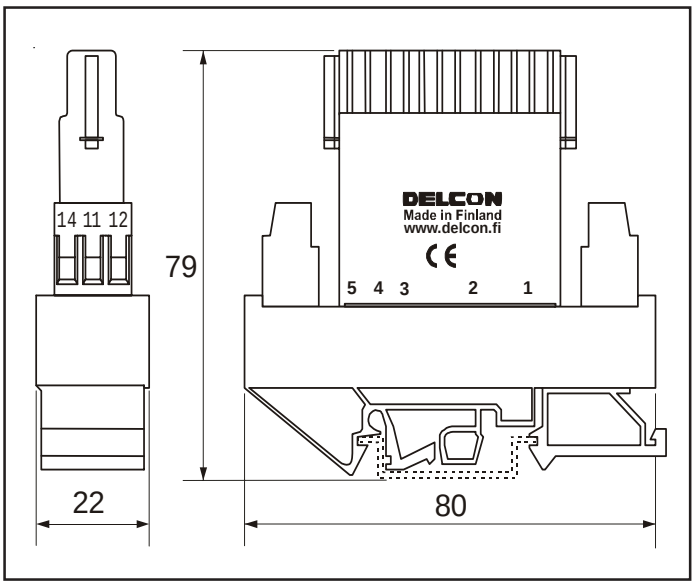
Secondary

Load voltage	minimum	0 VAC/VDC
	nominal	240 VAC/250 VDC
(absolute)	maximum	265 VAC/300 VDC
Load current, resistive	maximum	0,15 A
Voltage drop at max. load	typical	3 V
Switch-on delay	typical	0,5 ms
	maximum	-
Switch-off delay	typical	0,5 ms
	maximum	-
Inductive load, cos ϕ < 1	maximum	0,1 A

Physical dimensions and other data

Breakdown voltage	minimum	4000 VAC rms
Resistance	minimum	10^{10} Ω
Materials:		
housing	thermoplastic	UL 94 V-0
socket	thermoplastic	UL 94 V-2
Weight	typical	75 g
Air/creepage distance	minimum	8 mm
Capacitance I/O	typical	3 pF
Screw terminals:		
solid wire	4 mm²	(AWG 12)
stranded	2,5 mm²	(AWG 14)
Torque	maximum	0,5 Nm

Color of casing: black



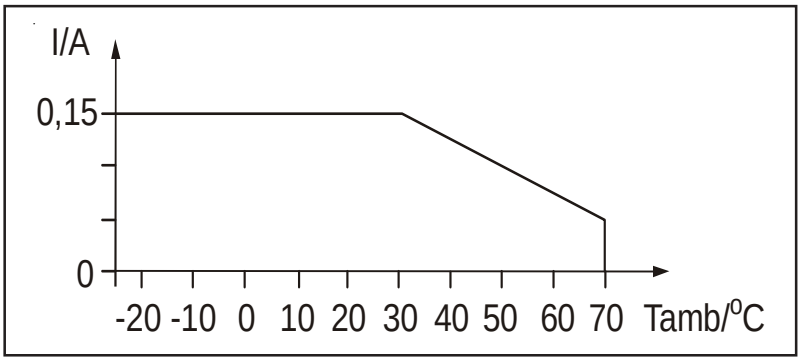
Dimensions in mm.

Temperature derating

Allowed load is derated to 1/3 linearly from +30 ºC to +70 ºC ambient temperature.

Temperature range:

Storage: -40 ºC...+70 ºC
Operation: -25 ºC...+70 ºC



Derating curve for the relay.

Derating when switching inductive loads

This relay is ment for resistive and slightly inductive loads.

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, for instance from the Wickman 193 range. 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.

Approvals

CE

The relay fulfils EMC-directive 89/336/EEC requirements. Product has been tested according generic standards EN50081-2 and EN50082-2. The relay fulfils also requirements of the low voltage directive 73/23/EEC.

Guarantee

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

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