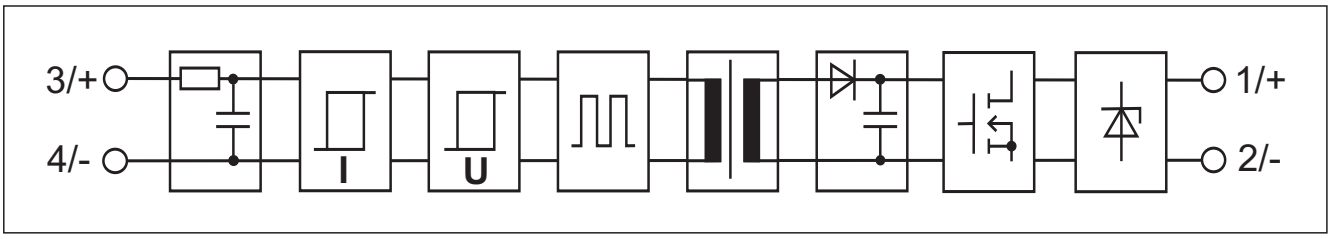
GLO 5CR

GL-series solid state output relay

- Plug-in output relay for DC-loads
- 3 A continuous current, 15 A/10 ms
- 0...60 VDC nominal load voltage
- Integrated status LED
- Works from zero loads upwards
- For resistive and slightly inductive loads
- CE (EMC and LVD)

Block diagram



Specifications (at temperature of 25 °C)

Primary

Input voltage	nominal	5 VDC
Input current	typical	12 mA
at nominal voltage	maximum	15 mA
Input voltage range	minimum	3 VDC
(abs.)	maximum	7 VDC
Input impedance	typical	0,42 kΩ
Switch-on voltage	typical	2,7 VDC
	maximum	3 VDC
Switch-off voltage	typical	2,5 VDC
	minimum	2 VDC

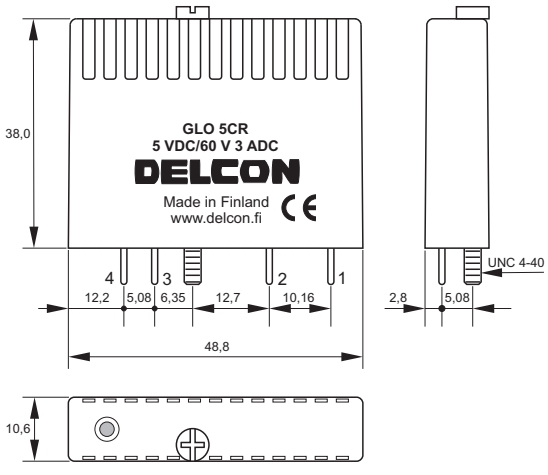
Secondary

Load voltage	minimum	0 VDC
	nominal	60 VDC
(absolute)	maximum	66 VDC
Load current	maximum	3 A
Load current 10 ms	maximum	15 A
Voltage drop at max. load	typical	0,5 VDC
Switch-on delay	typical	0,3 ms
	maximum	0,5 ms
Switch-off delay	typical	0,3 ms
	maximum	0,5 ms
Inductive load, L/R	maximum	0,5 ms (60 V/3 A)
	maximum	5 ms (24 V/2 A)

Physical dimensions and other data

Breakdown voltage I/O	Minimum	4300 VAC rms
Material	thermoplastic	UL 94 V-0
Weight	typical	30 g
Air/creepage distance I/O	minimum	8 mm
Capacitance I/O	typical	3 pF
Temperatures		
storage		-40 °C...+70 °C
operation		-25 °C...+70 °C

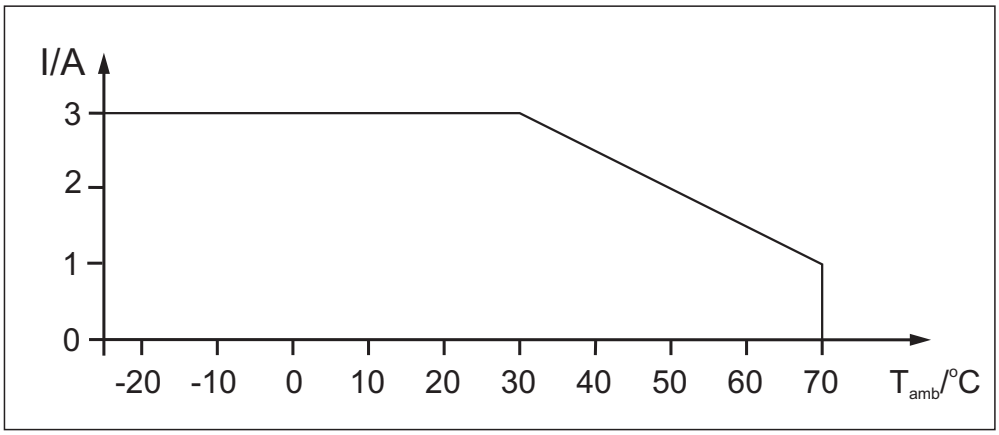
Color of casing: red



Dimensions in mm.

Temperature derating

Allowed load current 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.



Derating curve for the relay.

Derating when switching inductive loads

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

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.

Approvals

CE

Product has been designed to meet the main requirements of the EMC-directive 2004/108/EC.

The relay fulfils requirements of the low voltage directive 2006/95/EC.

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 materials must be returned to the manufacturer for evaluation. This guarantee does not cover damage due to incorrect use or electrical overload.

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Delcon Oy reserves the right to change the product specifications without prior notice.