

LPS12S, LPS24S, LPS24LS

Load polarity switches/motor controllers

LPS12S, load polarity switch with SLO 12CRX relays, 12 VDC power, 12 VDC control

LPS24S, load polarity switch with SLO 24CRX relays, 24 VDC power, 24 VDC control

LPS24LS, load polarity switch with SLO 24CRX relays, 24 VDC power, 12/24 VDC control

Main features

- Load polarity switching (for Peltier elements etc.)
- Controlling of DC-motors, forward/reverse (with right DC-motor types)
- CE (LVD)

Main specifications

Breakdown voltage I/O	minimum	4300	VAC rms
Air/creepage distances I/O	minimum	8	mm
Screw terminals:			
Torque	range	0,5...0,6	Nm
Solid wire	maximum	4 mm ² (AWG 12) (range 12...24 AWG)	
Stranded	maximum	2,5 mm ² (AWG 14) (range 14...24 AWG)	
Materials:			
DIN-rail socket	PA	UL 94HB	
Mounting foot	PA	UL 94V-2	
Weight	typical	-	g
Temperature range:			
Storage	range	-40...+70	°C
Operation	range	-25...+70	°C

Electrical specifications ($T_A = 25\text{ °C}$)

Primary	LPS12S	LPS24S	LPS24LS
Power supply, nominal	12 VDC	24 VDC	24 VDC
Power supply range	10...18 VDC	20...32 VDC	20...32 VDC
Supply current, typical	20 mA	24 mA	24 mA
Control current, typical *	0,2 mA/12 V	0,4 mA/24 V	0,7/1,7 mA
Control voltage, forward/reverse **	0 V/12 V	0 V/24 V	12 V/24 V
Secondary			
Load voltage, nominal	24 VDC	24 VDC	24 VDC
Load voltage range	0...32 VDC	0...32 VDC	0...32 VDC
Load current, maximum ***	10 ADC	10 ADC	10 ADC
Switch over at nominal voltage, typical	2 ms	1 ms	2 ms

Ambient temperature (T_A) means the temperature immediate in vicinity of relays, where the air flow meets the relays.

* At control voltage 12 V/24 V for LPS24LS

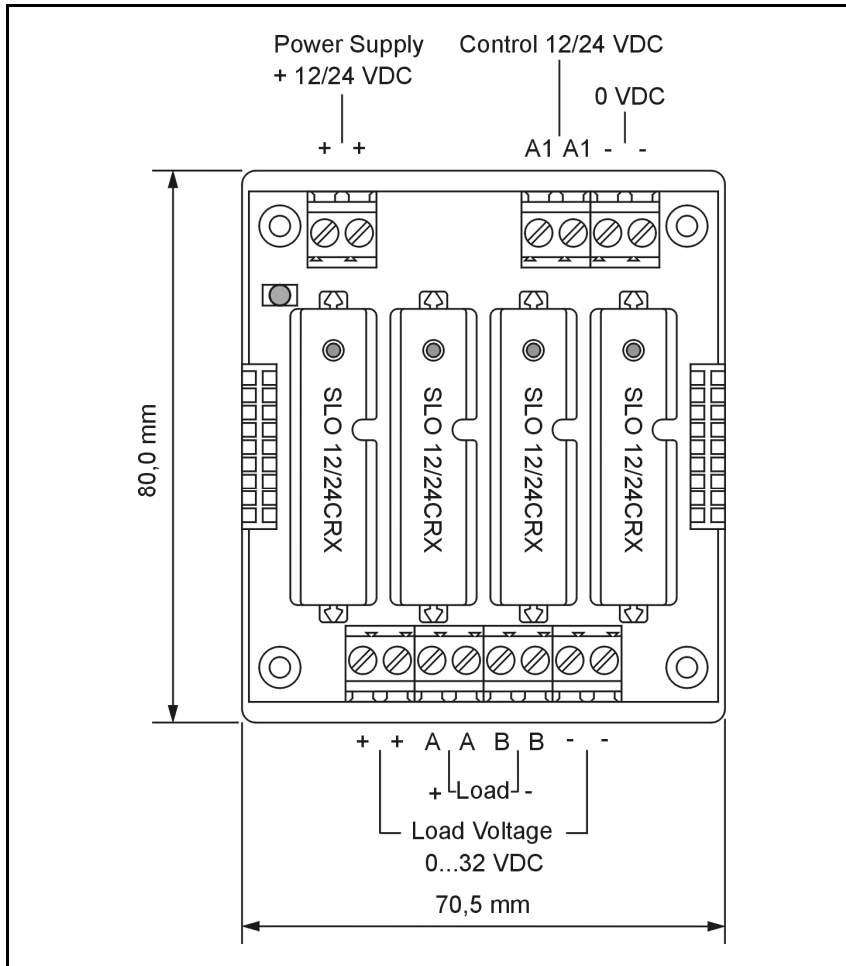
** Voltage level for forward/voltage level for reverse

*** Note current derating for the relays from relay specifications.

Assembling and use


Can be assembled to standard 35 mm DIN-rail. The load can be for instance Peltier element, which is used for warming/cooling solutions. The load can be also a DC-motor. The forward and reverse functions work only with part of the motors. This depends on the motor type. Please check from the motor specification.

Mechanical dimensions and connections



LPS12/24(L)S (dimensions in mm).

Approvals

	Fulfils requirements of the low voltage directive (LVD) 2006/95/EC.
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Guarantee

These polarity switches made by Delcon Oy are 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.