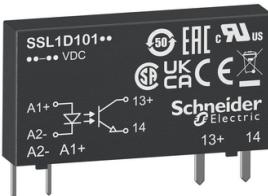


Product data sheet

Specifications



Solid state slim relay, Harmony, 2A, random switching, input 15 to 30V DC, output 24 to 280V AC

SSL1A12BDR

Main

Range of product	Harmony Solid State Relays
Device short name	SSL
Network number of phases	1 phase
[Uc] control circuit voltage	15...30 V
Output switching mode	Random voltage switching
Short-circuit current	5000 A
Associated fuse rating	2.5 A at 250 V coordination type 1
Ui rated insulation voltage	280 V
Insulation resistance	> 100 MΩ at 500 V DC
Electromagnetic compatibility	Electrostatic discharge - test level: 4 kV criteria B (contact discharge) conforming to IEC 61000-4-2 Electrostatic discharge - test level: 8 kV criteria B (air discharge) conforming to IEC 61000-4-2 Conducted RF disturbances - test level: 10 V criteria A (0.15...80 MHz) conforming to IEC 61000-4-6 Electrical fast transient/burst immunity test - test level: 2 kV criteria B (5 kHz) conforming to IEC 61000-4-4 Electrical fast transient/burst immunity test - test level: 1 kV criteria B (5 kHz) conforming to IEC 61000-4-4 Surge immunity test - test level: 1 kV criteria B (line to line) conforming to IEC 61000-4-5 Surge immunity test - test level: 2 kV criteria B (line to earth) conforming to IEC 61000-4-5 Surge immunity test - test level: 1 kV criteria B (line to earth) conforming to IEC 61000-4-5 Radiated emission - test level: 30...1000 MHz conforming to IEC 60947-1 Conducted emission - test level: 0.15...30 MHz conforming to IEC 60947-1
[Uimp] rated impulse withstand voltage	4.0 kV for input to case conforming to IEC 62314 4.0 kV for input/output circuit conforming to UL 508 4.0 kV for input/output circuit conforming to IEC 62314 4.0 kV output to case 4.0 kV output to case conforming to IEC 62314 4.0 kV for input to case conforming to UL 508 4.0 kV output to case conforming to UL 508

Complementary

Mounting support	Socket
[In] rated current	2 A
Output voltage	24...280 V AC
[Uc] control circuit voltage	15...30 V DC
Capacitance unbalance	2.5 pF input/output
Minimum switching voltage	15 V DC turn-on
Maximum switching voltage	10 V DC turn-off

Input current	6 mA
Input impedance	2500 Ohm
Solid state output type	SCR output Random voltage switching
Load current	0.07...2 A
Transient Overvoltage	600 V
Surge current	84 A for 16.6 ms 80 A for 20 ms
Maximum voltage drop	<1.5 V on-state
Maximum I^2t for fusing	33 A ² .s for 10 ms at 50 Hz 29 A ² .s for 8.3 ms at 60 Hz
Maximum leakage current	4 mA off-state
DV/dt	500 V/μs off-state at maximum voltage
Response time	0.5 cycle (turn-off) 0.1 ms (turn-on)
Overvoltage category	III
Width	5 mm
Height	28 mm
Depth	15 mm
Product weight	0.0041 kg
Device presentation	Complete product

Environment

Flame retardance	V0 conforming to UL 94
Dielectric strength	2500 V for input/output
Pollution degree	2
Standards	IEC/EN 60947-4-3 IEC/EN 62314 UL 508 C22.2 No. 14
Product certifications	cURus CSA EAC CE UKCA
Marking	CE
IP degree of protection	IP00
Ambient air temperature for operation	-20...80 °C
Ambient air temperature for storage	-20...85 °C

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	0.700 cm
Package 1 Width	2.500 cm
Package 1 Length	37.000 cm

Package 1 Weight	4.000 g
Unit Type of Package 2	BB1
Number of Units in Package 2	12
Package 2 Height	0.700 cm
Package 2 Width	2.500 cm
Package 2 Length	37.000 cm
Package 2 Weight	61.000 g
Unit Type of Package 3	S01
Number of Units in Package 3	1080
Package 3 Height	15.000 cm
Package 3 Width	15.000 cm
Package 3 Length	40.000 cm
Package 3 Weight	5.872 kg



Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

Environmental footprint

Total lifecycle Carbon footprint **10**

Environmental Disclosure [Product Environmental Profile](#)

Use Better

Materials and Substances

Packaging made with recycled cardboard **Yes**

Packaging without single use plastic **No**

[EU RoHS Directive](#) **Pro-active compliance (Product out of EU RoHS legal scope)**

California proposition 65 **WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](#)**

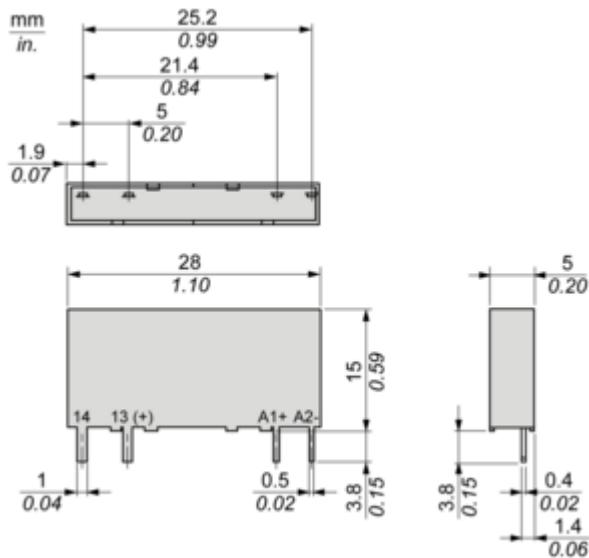
Use Again

Repack and remanufacture

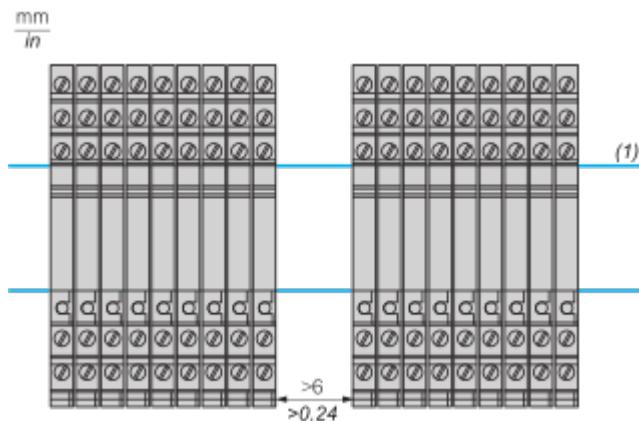
Take-back **No**

Dimensions Drawings

Dimensions

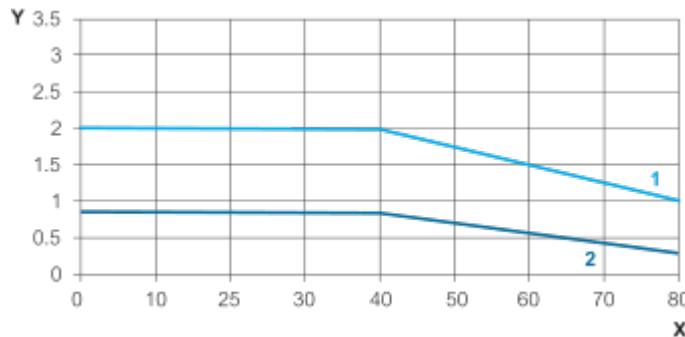


Mounting and Clearance

Mounting

(1) : DIN Rail Mount

Performance Curves

Derating Curves

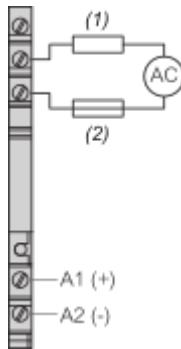
X : Ambient Temperature (°C)

Y : Load Current (Amperes)

1 : Installed single unit, distance to adjacent components more than 6.2 mm

2 : Multiple units, no minimum spacing between components

Connections and Schema

Wiring

(1) Load

(2) Fuse (Recommended 021602.5MXP Littelfuse)

Technical Illustration

Dimensions

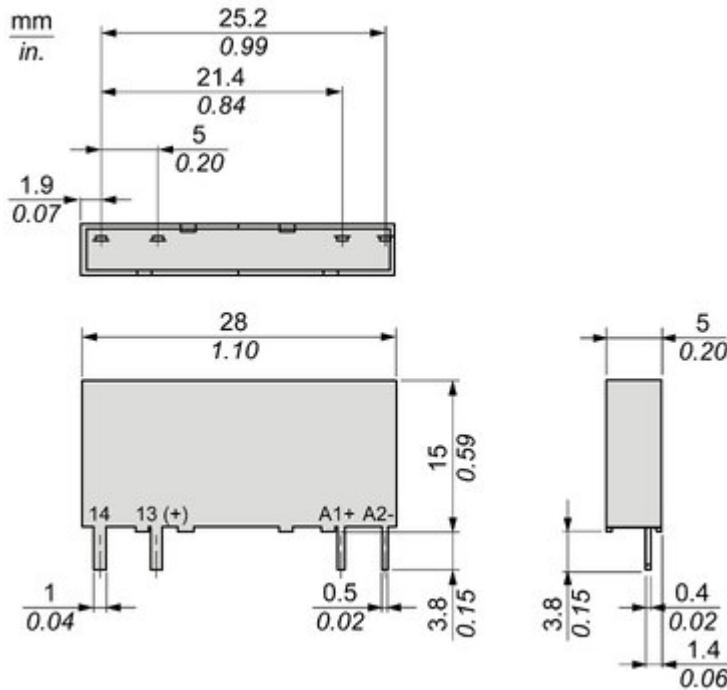
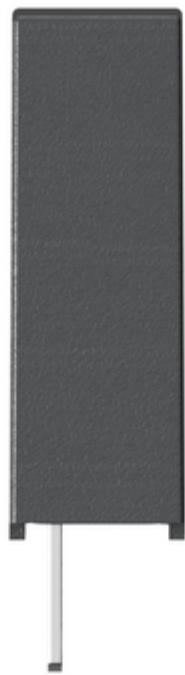


Image of product / Alternate images

Alternative





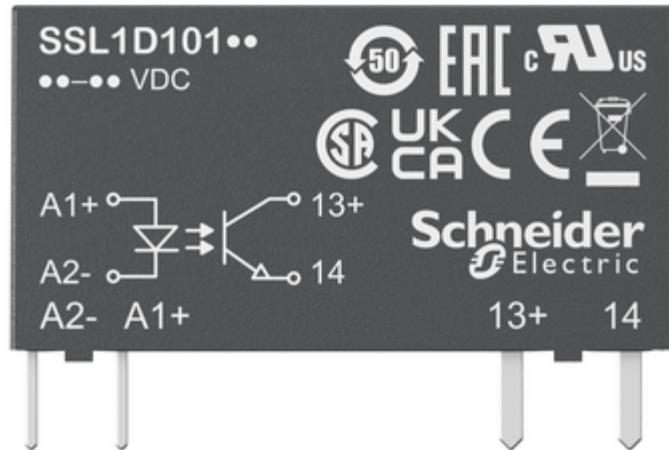


Image of product in real life situation

