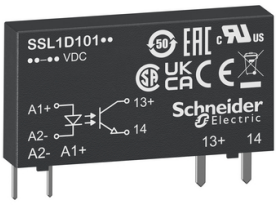
Product data sheet

Specifications



plug in relay, Harmony Solid State Relays, 2A, zero voltage switching, input 15 to 30V DC, output 24 to 280V AC

SSL1A12BD

Product availability: Stock - Normally stocked in distribution facility

Main

Range of Product	Harmony Solid State Relays
Device short name	SSL
Phase	1 phase
[Uc] control circuit voltage	15...30 V
Output switching mode	Zero voltage switching
Short-circuit current	5000 A
Associated fuse rating	2.5 A 250 V type 1
Ui rated insulation voltage	280 V
Insulation resistance	> 100 MOhm 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 IEC 62314 4.0 kV for input/output circuit UL 508 4.0 kV for input/output circuit IEC 62314 4.0 kV output to case IEC 62314 4.0 kV output to case 4.0 kV for input to case UL 508 4.0 kV output to case UL 508

Complementary

Mounting Support	Socket
Line 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

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

Maximum switching voltage	10 V DC turn-off
Input Current	10 mA
Input impedance	2500 Ohm
Solid state output type	Zero voltage switching SCR output
Load current	0.07…2 A
Transient Overvoltage	600 V
Surge current	84 A 16.6 ms 80 A 20 ms
Maximum voltage drop	<1.5 V on-state
Maximum I²t for fusing	33 A².s for 10 ms at 50 Hz 29 A².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-on) 0.5 cycle (turn-off)
Overvoltage category	III
Width	0.2 in (5 mm)
Height	1.1 in (28 mm)
Depth	0.6 in (15 mm)
Net Weight	0.0090 lb(US) (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	-4…176 °F (-20…80 °C)
Ambient Air Temperature for Storage	-4…185 °F (-20…85 °C)

Ordering and shipping details

Category	US10CP222375
Discount Schedule	0CP2
GTIN	3606480579721
Returnability	Yes

Country of origin	CN

Packing Units

Unit Type of Package 1	PCE
Nbr. of units in pkg.	1
Package 1 Height	0.591 in (1.500 cm)
Package 1 Width	0.197 in (0.500 cm)
Package 1 Length	1.102 in (2.800 cm)
Package weight(Lbs)	0.106 oz (3.000 g)
Unit Type of Package 2	BB1
Number of Units in Package 2	10
Package 2 Height	1.181 in (3.000 cm)
Package 2 Width	1.969 in (5.000 cm)
Package 2 Length	4.921 in (12.500 cm)
Package 2 Weight	1.940 oz (55.000 g)
Unit Type of Package 3	S01
Number of Units in Package 3	280
Package 3 Height	5.906 in (15.000 cm)
Package 3 Width	5.906 in (15.000 cm)
Package 3 Length	15.748 in (40.000 cm)
Package 3 Weight	3.973 lb(US) (1.802 kg)

Contractual warranty

Warranty (in months)	18

Environmental Data

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 kg CO2 eq.**
Carbon footprint of the manufacturing phase [A1 to A3]	**0.1 kg CO2 eq.**
Carbon footprint of the distribution phase [A4]	**0 kg CO2 eq.**
Carbon footprint of the installation phase [A5]	**0 kg CO2 eq.**
Carbon footprint of the use phase [B2, B3, B4, B6]	**10 kg CO2 eq.**
Carbon footprint of the end-of-life phase [C1 to C4]	**0 kg CO2 eq.**
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	**Compliant By Exemption**
REACh Regulation	**Reference contains Substances of Very High Concern above the threshold**
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**

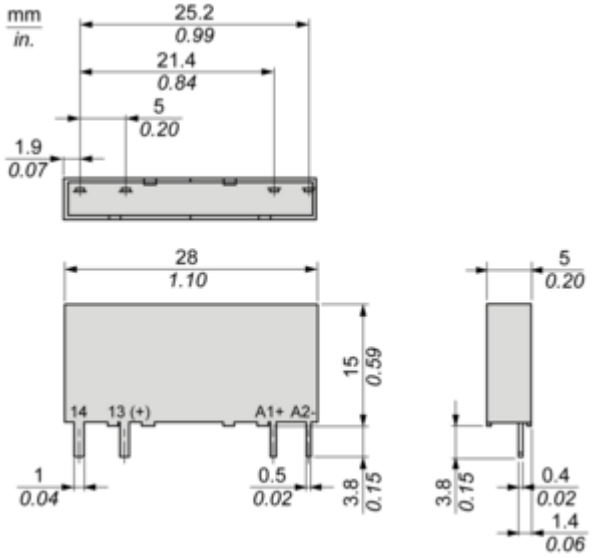
Use Again

Repack and remanufacture

Recyclability potential, in %	**27**
Circularity Profile	**No need of specific recycling operations**
Take-back	**No**

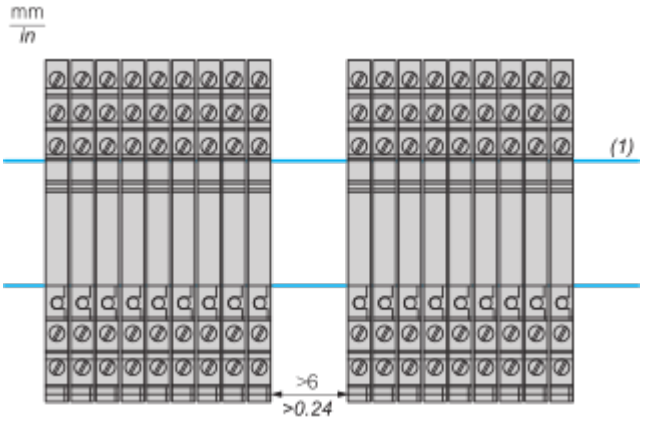
Dimensions Drawings

Dimensions



Mounting and Clearance

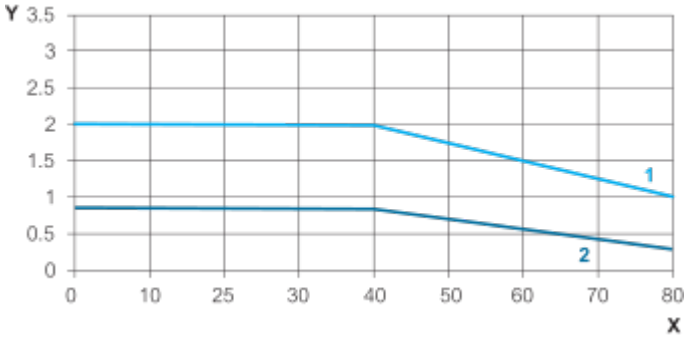
Mounting



(1) : DIN Rail Mount

Performance Curves

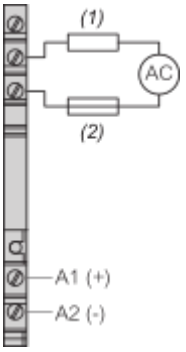
Derating Curves



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



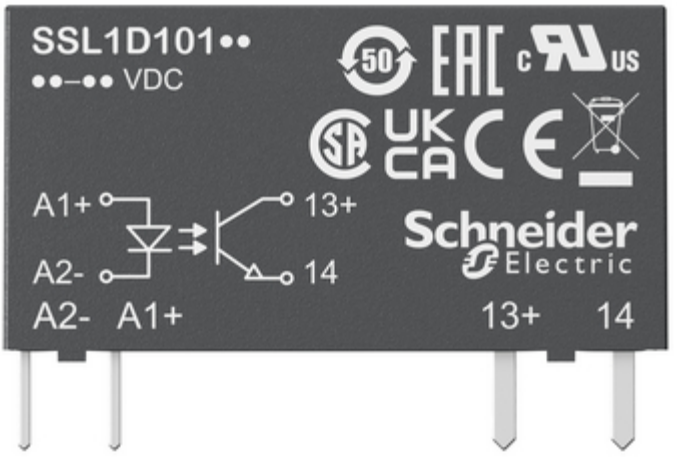
(1) Load
(2) Fuse (Recommended 021602.5MXP Littelfuse)

Image of product / Alternate images

Alternative






SSL1D101••
••–•• VDC
A1+
A2-
13+
14
Schneider
Electric
A2- A1+
13+ 14





