

DESCRIPTION

The MLP-100 is a high-performance surge protective device (SPD) for AC/DC contact signals or synchro-analog converter signal lines that protects electrical instruments by absorbing lightning-induced surge voltage.

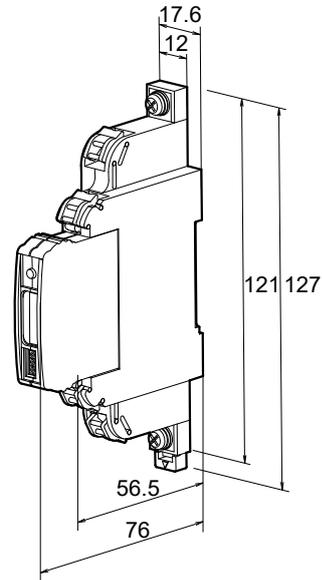
This SPD consists of a plug part and a socket part. The plug part features a deterioration indication function that allows users to check it for deterioration with a special tester. The product is designed such that the signal is not interrupted even if the plug is removed from the socket for replacement.

ORDERING INFORMATION

Ordering Code MLP-100

SPECIFICATIONS
● PERFORMANCE

Item	Measuring Conditions	Performance
Maximum Continuous Operating Voltage (Uc)	—	180V DC 140V AC
Rated Current	—	3A
Operation Starting Voltage	100V/s	T1-T2: 400-900V T-E: 280-500V
Insulation Resistance	180V DC	100MΩ min.
Insertion Loss	DC to 10MHz	1.0dB max.
Voltage Protection Level (Up)	1.2/50μs, 4kV	T1-T2: 1500V max. T-E: 800V max.
Impulse Durability	8/20μs (cat. C2)	10 times (2kA)
	10/350μs (cat. D1)	2 times (0.5kA)
Maximum Discharge Current (Imax)	8/20μs	L1-L2: 5kA L-E: 10kA (5kA×2)
	10/350μs	L1-L2: 0.5kA L-E: 1kA (0.5kA×2)
Overstressed Fault Mode	—	mode 1
Response Time	—	3ns max.
Plug Replacement Timing Indicator	Checked with special tester	Normal: LED ON Faulty: LED OFF
JIS Compliance	JIS C 5381-21 (category: C2/D1)	


● ENVIRONMENTAL

Location of Use	Machine room or equipment enclosure
Rated Operating Temperature	-40 to 70°C
Rated Operating Humidity	96% RH max. (non-condensing)
Storage Temperature	-40 to 70°C
Storage Humidity	96% RH max. (non-condensing)
Altitude	2000m max.

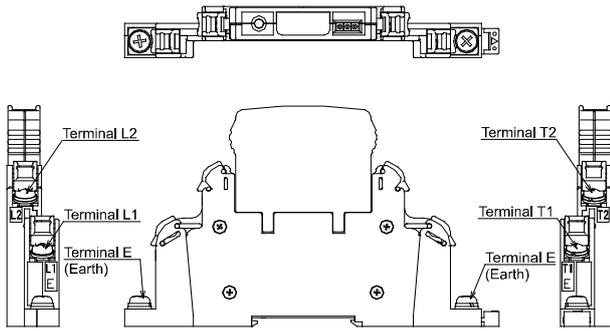
● PHYSICAL

Construction	Plug-and-socket, two-piece construction
Grounding	Class D [100Ω max.]
Installation	DIN rail mounting (wall-mountable)
Wiring	M4 screw terminal connection Terminals L1, L2, T1, T2 Stranded wire: 0.2mm ² (AWG24) to 2mm ² (AWG14) Insulated solderless terminal for M4, e.g., 0.3-4.1, 1.25-4, 2-4
	Terminal E Stranded wire: 2mm ² (AWG14) min. Insulated solderless terminal for M4, e.g., 2-4
Screwing Torque	0.75 Nm
Dimensions	W17.6 × D127 × H76 mm
Weight	Approx. 90g

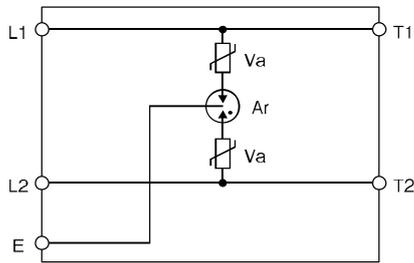
● MATERIAL

Plug / Socket	Polyamide
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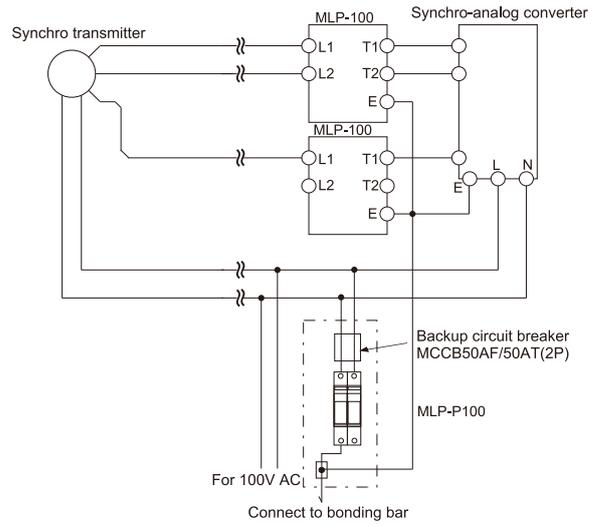
TERMINAL ASSIGNMENTS



BLOCK DIAGRAM



INSTALLATION EXAMPLE



For synchro-analog converters, two units should be used.

NOTE: If the distance from the MLP device to the equipment to be protected is over 10 meters, it is recommended that an additional MLP device adjacent to the equipment to be protected should be installed.