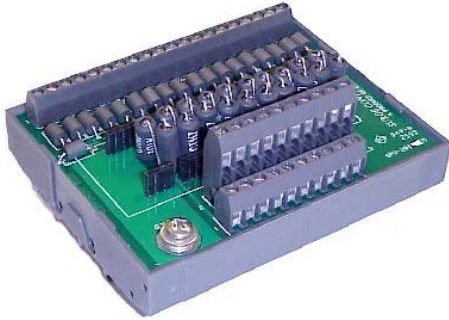


SPU SERIES

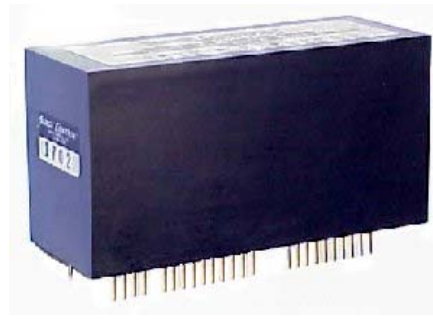
I/O Module Signal/Data/Power



SPU-20LM Motherboard



SURGE SUPPRESSOR Multi-Line



Replaceable Daughtercard

FEATURES:

- ▶ Performance exceeds highest class severity level of IEC/EN 61000-4-4 and 61000-4-5.
- ▶ Enhanced filtering option to attenuate high frequency. Brings equipment into compliance with IEEE /ANSI C37.90.1.
- ▶ Universal hardwired version for all I/O modules including AC, DC, contact output, current output and signal input.
- ▶ Unique multi-stage design provides the most effective suppression and filtering available, and requires no additional secondary protection.
- ▶ Sub-nano second response time stops failures due to lightning, spikes and over-voltage surges while filtering all other electrical noise.
- ▶ Plug-in replaceable daughter card modules contain all active surge suppression.
- ▶ Space efficient protector is hermetically sealed and suitable for the most harsh industrial environments.
- ▶ Universal DIN-Rail mounting allows easy installation on any standard DIN-Rail configuration.
- ▶ Automatic reset and fail safe design requires no maintenance. Eliminates "Out of Service" downtime and repair/replacement costs caused by damaging electrical surges.
- ▶ Protection for current loop instrumentation and low frequency signal/data lines.
- ▶ UL-497B listed for Data Models (60 VDC or less) UL file E205158.

Applications:

The SPU Series is a universal DIN-Rail multi-line surge suppressor designed to protect I/O modules of all major manufacturers in the most harsh environments. The SPU Series should be selected in all cases where Allen-Bradley IFM or AIFM modules are used. Protection is from lightning induced surges, Electrical Fast Transients (EFT), and EMI/RFI noise.

Select the SPU-20LM or SPU-20RM base module for 1 to 20 point applications. The SPU-40LM or SPU-40RM base module should be used for 21-40 point applications. Select the required plug-in daughter module by application as noted on the reverse side of this sheet.

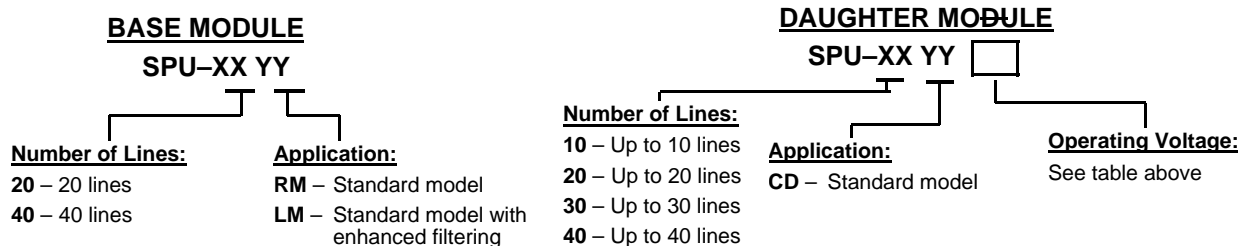
See the SAB-Series data sheet for Allen-Bradley PLC or SLC I/O applications when the swing arm is utilized.

Typical Installation:

Snap the rail mounted suppressor on any DIN-Rail next to the equipment it is to protect. Field wires are connected to the field miniature screw terminals on the SPU suppressor unit. Connect the protected lines to the I/O equipment and dress away from the incoming lines. The suppressor must be connected to a good earth ground using a #12 AWG wire. Equipment ground and suppressor ground should be common.

SPU SERIES OPERATING SPECIFICATIONS:

DAUGHTER MODULE SPECIFICATIONS	SPU-XX YY05	SPU-XX YY10	SPU-XX YY24	SPU-XX YY30	SPU-XX YY48	SPU-XX YY60	SPU-XX YY120	See Note 1 SPU-XX YY220
Operating Voltage	± 5 VDC	± 10 VDC	± 24 VDC	± 30 VDC	± 48 VDC	± 60 VDC	120 VAC	220 VAC
Maximum Operating Voltage	6 VDC	12 VDC	25 VDC	33 VDC	53 VDC	64 VDC	150 VAC	280 VAC
Max Op. Current RM Module / LM Module	0.2 / 2.0 A	0.2 / 2.0 A	0.2 / 2.0 A	0.2 / 2.0 A	0.2 / 2.0A	0.2 / 2.0 A	N/A / 2.0 A	N/A / 2.0 A
Clamping Action Turn-On	7.1 Volts	14.3 Volts	28.5 Volts	37.1 Volts	58.9 Volts	71.3 Volts	143 Volts	315 Volts
Maximum Clamping (8x20 micro-seconds)	11 Volts	22 Volts	44 Volts	52 Volts	81 Volts	94 Volts	190 Volts	470 Volts
Maximum Surge Voltage	6 kV	6 kV	6 kV	6 kV	6 kV	6 kV	6 kV	6 kV
Maximum Surge Current (8x20 micro-seconds)	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA	10.0 kA
Response Time	Less than 1 nanosecond							
Operating & Storage Temperature	-40 °C to +85 °C							

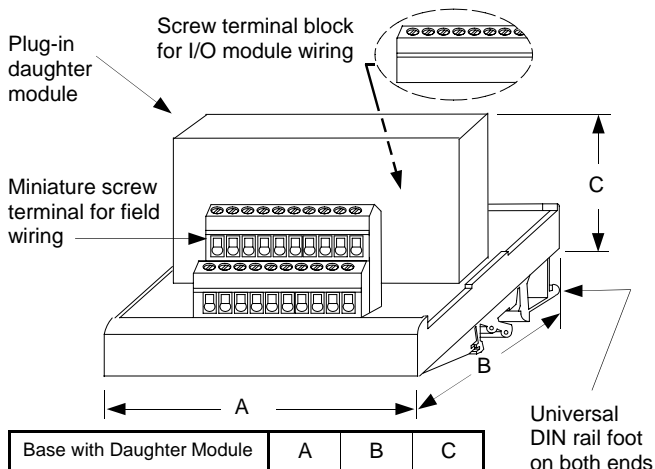


Notes:

- For applications requiring use of SPU-XXCD120 or SPU-XXCD220 always use the SPU-20 LM or SPU-40LM base modules
- Base and daughter modules can be purchased separately, however, initial installations will require both a base and daughter module.

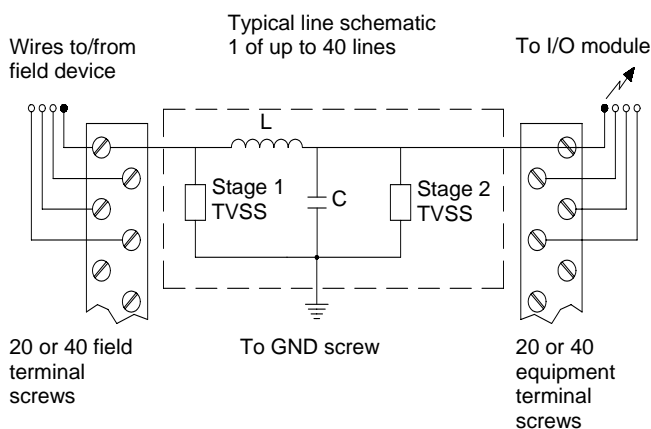
OUTLINE DIMENSIONS:

SPU-20LM & SPU-20CD24 Depicted



Base with Daughter Module	A	B	C
20 Line	4.5"	3.6"	2.9"
40 Line	6.3"	3.6"	2.9"

TYPICAL INSTALLATION:



Note: See the SAB Series data sheet for Allen-Bradley PLC or SLC I/O applications when the Allen-Bradley I/O pre-wired cable is used.

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