

21/1. 7-1-X-31V 06-6211-8399



SURGE PROTECTION MODULES
5 PIN - SOLID STATE MODULE SERIES

3BIS-300 & 4B1S-300

5 PIN - Solid State - Surge Protection Module



Product Specifications

UL 497 Primary Protector for Communication Circuits

The 3B1S-300 is a premium series 5 PIN solid state protector module that is designed to provide superior transient and power fault protection for most standard telephone line applications.

These solid state modules are suited to applications that require the protection of sensitive telephone equipment due to their nanosecond reaction time.

The characteristics of the solid state protector are far superior to gas tube technology in speed and are virtually immune to overshoot, aging and failure due to repeated tripping.

The 4 - Series features PTC (positive temperature coefficient) technology. These optional self-resetting current limiters provide effective protection from 'sneak current' faults. The PTC is vastly superior to the heat coil solution, which requires that the module be replaced after each 'sneak current' event.

Nanosecond Response Time

Internal Failsafe Mechanism that Permanently
Grounds the Module Under Sustained High Current
Conditions

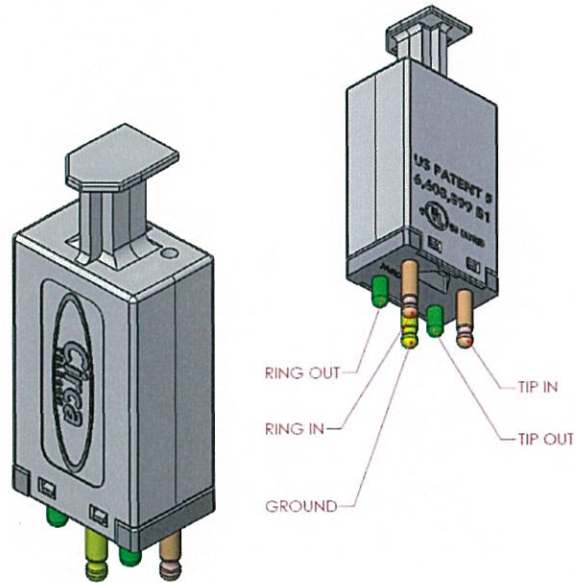
Balanced Operation

UL Listed and RUS Approved

Design to Exceed Telcordia Standards

Integrated Test Points

ISO 9001 Certified Manufacturer



Order this item

Ordering Information

Model Number	Stock Code	Application	Color	Clamping Voltage
3BIS-300	770131	Low Impedance for Long Cable Runs	Black	300V
4B1S-300	770135	Low Impedance for Long Cable Runs (4 Series has PTC)	Black	300V
3B3S-300	770133	Low Impedance for Long Cable Runs	Red	300V

RUS Approved Material - 2011 Edition RUS Publication 344-2 - Section 4.1.3 and 4.2.1

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3BIS-300 & 4B1S-300

5 PIN - Solid State - Surge Protection Module

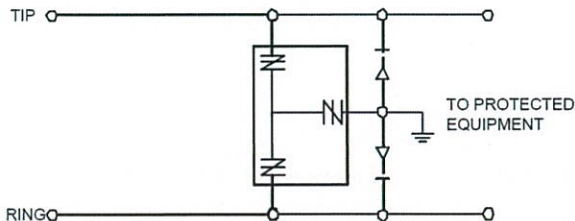


Product Specifications

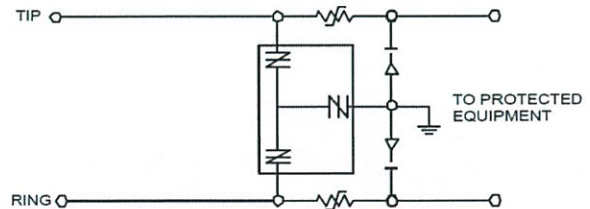
UL 497 Primary Protector for Communication Circuits

Module	3BIS-300	4B1S-300
DC Break Over - @ 100V/ μ S	300V	300V
Peak Pulse Current ⁽¹⁾		
@ 8 x 20 μ S	250A	250A
@ 10 x 160 μ S	150A	150A
@ 10 x 1000 μ S	100A	100A
Response Time	< 5 nanoseconds	< 5 nanoseconds
Holding Current	200 mA	200 mA
Surge Life ⁽²⁾		
@ 10A @ 10 x 1000/ μ S	Unlimited Operations	Unlimited Operations
@ 100A @ 10 x 1000/ μ S	> 300 Operations	> 300 Operations
@ 65A rms, 11 cycles, 130A	> 60 Operation	> 60 Operation
@ 10A rms, 1 sec, 20A	> 20 Operations	> 20 Operations
Capacitance		
1V rms @ 1KHz, 50V DC	< 45 pF	< 45 pF
Insulation Resistance		
@ 50V DC	100M Ω	100M Ω
Fail-Safe Operation		
@ 1.0A rms	< 50 Seconds	< 50 Seconds
@ 5.0A rms	< 15 Seconds	< 15 Seconds
@ 20A rms	< 10 Seconds	< 10 Seconds
@ 60A rms	< 3 Seconds	< 3 Seconds
Current Limiters (4 Series with PTC)		
Hold Current @ 20° C	N/A	145 mA
Line Series Resistance	N/A	4 - 6 Ω

3BIS-300 - Symmetrical



4B1S-300 - Symmetrical





SURGE PROTECTION MODULES 5 PIN - SOLID STATE MODULE SERIES

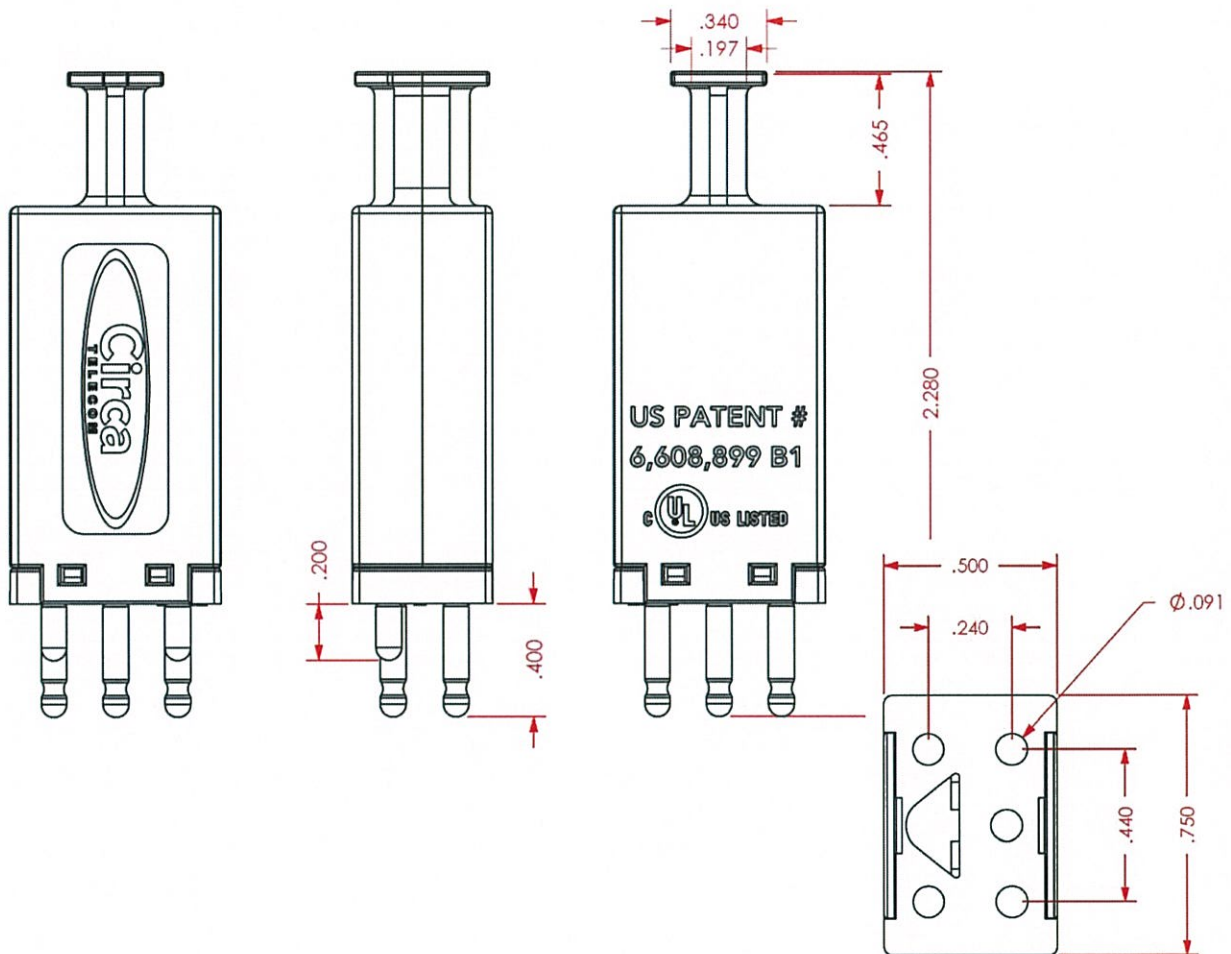
3BIS-300 & 4B1S-300

5 PIN - Solid State - Surge Protection Module



Physical Dimensions

UL 497 Primary Protector for Communication Circuits



Notes

(1) Total surge rating is 2x listed with respect to ground during simultaneous surge.

(2) Meets Bellcore TR-NWT-000974 service life requirements.

Pin alloy refers to tip and ring pins. Unless otherwise noted, all ground pins are tin.

Previous Model Numbers: C3B1S, CT3B1S, CT3B1S-BAL, CT3B1S/HD, CT4B1S-PTC/BAL, 3C1S, 4C1S

RUS Approved Material - 2011 Edition RUS Publication 344-2 - Section 4.1.3 and 4.2.1

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Building Entrance Terminals (Indoor)



Premium Quality - Heavy Duty

1880ENA1/NSC-12

屋外銅線用保安器 (PET)

12対用

Copper Protective Entrance Terminal



110

Features & Benefits

- 110 connector input and output
- protects up to 12 lines, also available in 6 pair (1880ENA1/NSC-6), 25 pair (1880ENA1/NSC-25), 50 pair (1880ENA1/NSC-50) and 100 pair (1880ENA1/NSC-100) configuration
- ideal for small PBX and interconnect installations
- stackable to allow for future service expansion
- external ground post for extending metallic frame to building ground
- equipped with an internal fuse link
- accommodates industry standard 5 pin protection modules
- designed to exceed the requirements set forth in Underwriters Laboratories UL497



1880ENA1/NSC-12

1880ENA1/NSC-12

Ordering Information

Model No.	Order No.	Pair Count	Input	Output	Dimensions (H" x W" x D")	Weight (lbs)
1880ENA1/NSC-12	307007	12	110 connector	110 connector	9.85 x 4.00 x 2.21	0.6

Note: Protection modules ordered separately.

最新のCIRCA型番リスト (Apr 2016)

6 PAIR 110/110 PROTECTED TERMINAL	1880ENA1/NSC-6	CIRCA
12 PAIR 110/110 PROTECTED TERMINAL	1880EN1/NSC-12	CIRCA
25 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-25	CIRCA
50 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-50	CIRCA
100 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-100	CIRCA

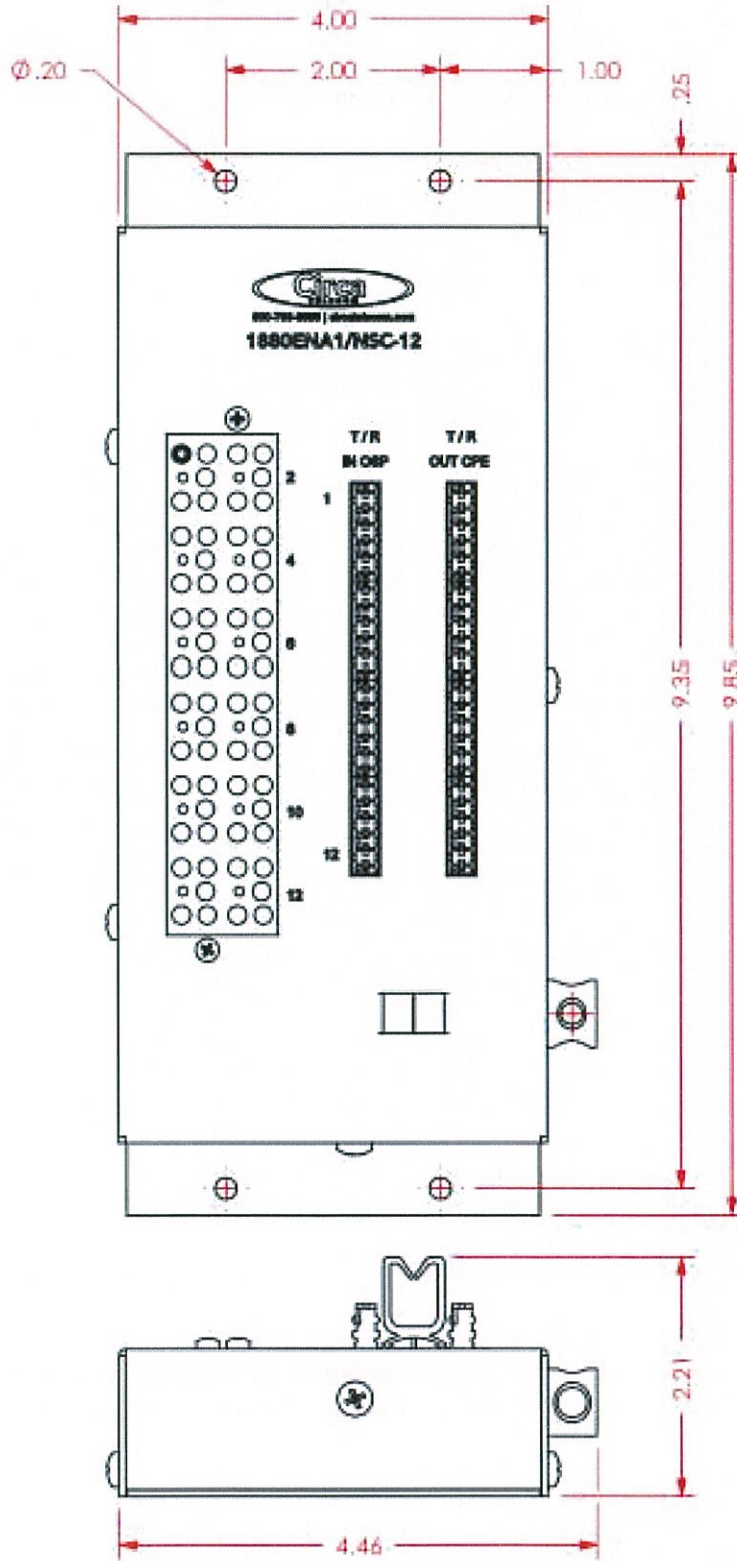
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Building Entrance Terminals (Indoor)

1880ECA1/NSC-12



Building Entrance Terminals (Indoor)



Premium Quality - Heavy Duty

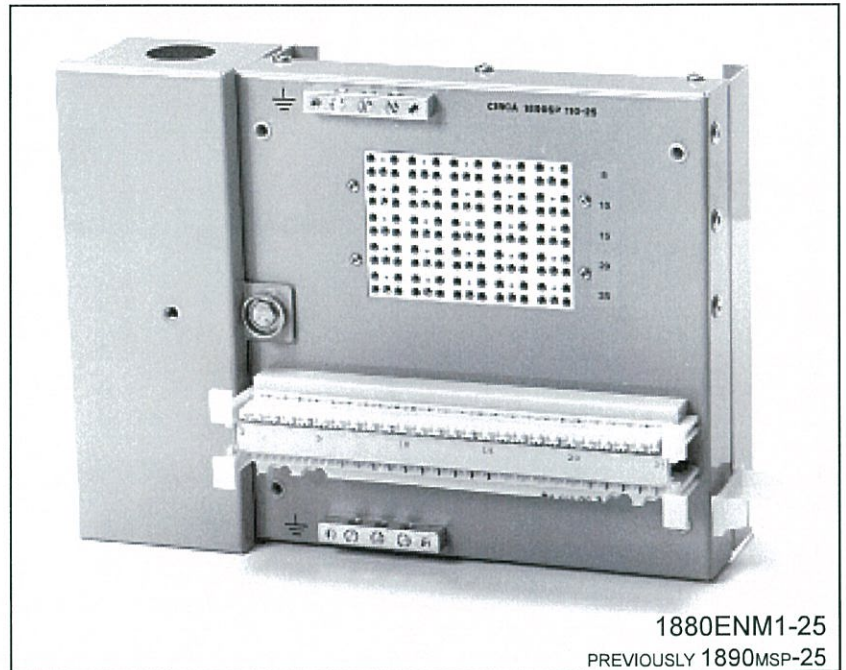
1880ENM1-25



屋外銅線用保安器 (PET)
25対用
Copper Protective Entrance Terminal

Features & Benefits

- MS² connector input and 110 connector output
- protects up to 25 lines, also available in 50 pair (1880ENM1-50) configuration
- built-in stand off bracket allows for easy distribution cable routing
- designed with an internal splice chamber and cover over incoming connection
- 26 AWG fuselink included
- stackable to allow for future service expansion
- external three position ground lug for building ground or connecting additional units
- accommodates industry standard 5 pin protection modules
- designed to exceed the requirements set forth in Underwriters Laboratory's UL497



1880ENM1-25
PREVIOUSLY 1890MSP-25

MS²

1880ENM1-25 Ordering Information

Model No.	Order No.	Pair Count	Input	Output	Dimensions (H" x W" x D")	Weight (lbs)
1880ENM1-25	305006	25	MS ² connector	110 connector	8.75 x 11.75 x 4.75	7.5

Note: Protection modules ordered separately.

最新のCIRCA型番リスト (Apr 2016)		
6 PAIR 110/110 PROTECTED TERMINAL	1880ENA1/NSC-6	CIRCA
12 PAIR 110/110 PROTECTED TERMINAL	1880EN1/NSC-12	CIRCA
25 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-25	CIRCA
50 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-50	CIRCA
100 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-100	CIRCA

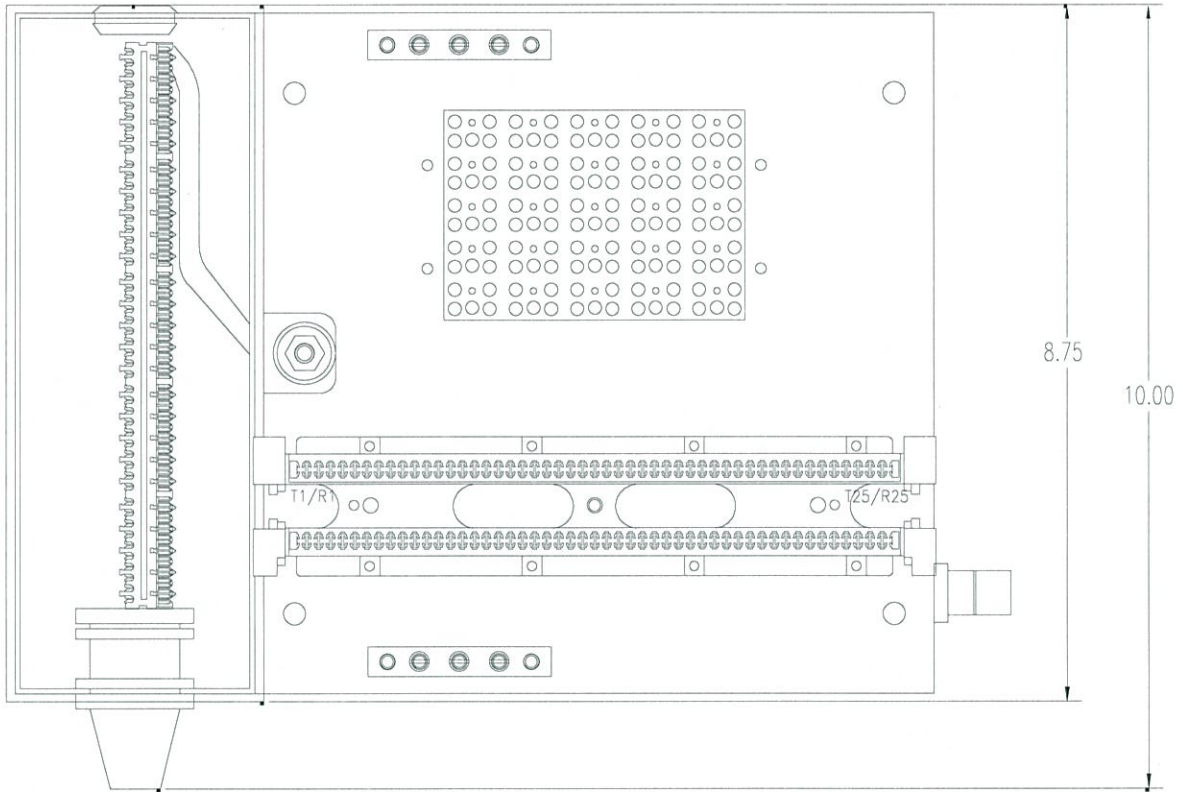
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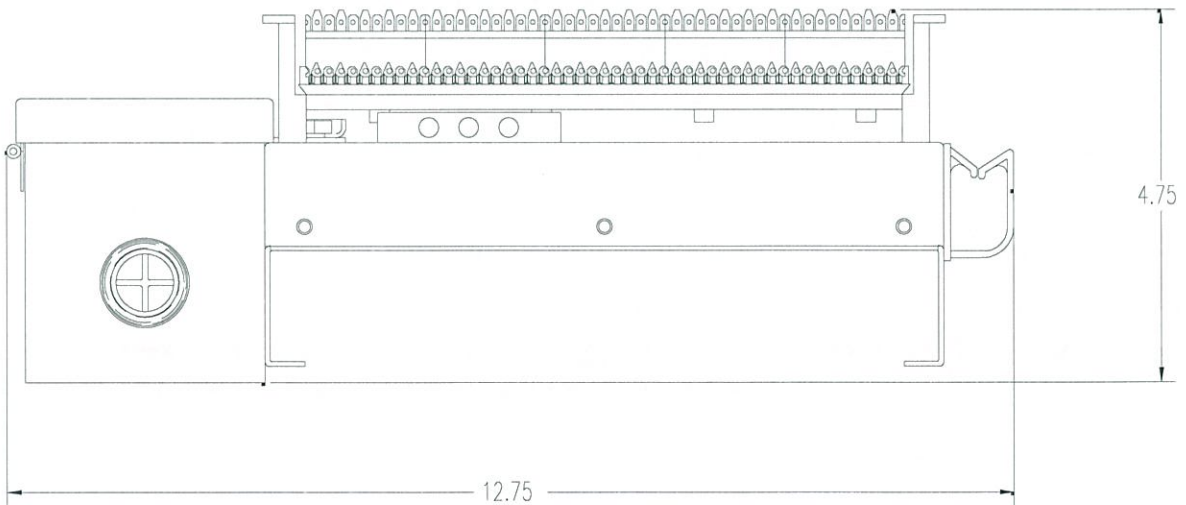


Building Entrance Terminals (Indoor)

1880ENM1-25



MS²



Building Entrance Terminals (Indoor)



Premium Quality - Heavy Duty

1880ENM1-50

屋外銅線用保安器 (PET)

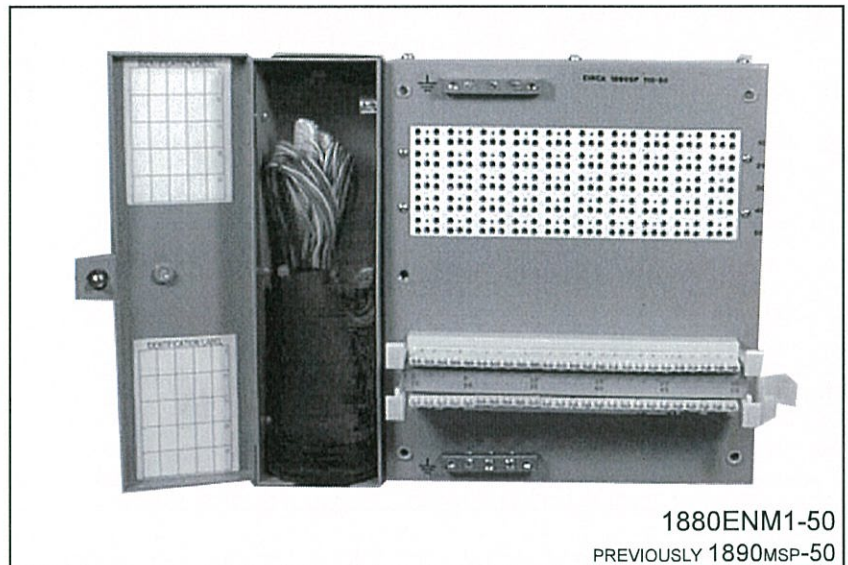
50対用

Copper Protective Entrance Terminal



Features & Benefits

- MS² connector input and 110 connector output
- protects up to 50 lines, also available in 25 pair (1880ENM1-25) configuration
- built-in stand off bracket allows for easy distribution cable routing
- designed with an internal splice chamber and cover over incoming connection
- 26 AWG fuselink included
- stackable to allow for future service expansion
- external three position ground lug for building ground or connecting additional units
- accommodates industry standard 5 pin protection modules
- designed to exceed the requirements set forth in Underwriters Laboratory's UL497



1880ENM1-50
PREVIOUSLY 1890MSP-50

1880ENM1-50 Ordering Information

Model No.	Order No.	Pair Count	Input	Output	Dimensions (H" x W" x D")	Weight (lbs)
1880ENM1-50	317018	50	MS ² connector	110 connector	10.5 x 12.24 x 4.85	11

Note: Protection modules ordered separately.

最新のCIRCA型番リスト (Apr 2016)

6 PAIR 110/110 PROTECTED TERMINAL	1880ENA1/NSC-6	CIRCA
12 PAIR 110/110 PROTECTED TERMINAL	1880EN1/NSC-12	CIRCA
25 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-25	CIRCA
50 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-50	CIRCA
100 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-100	CIRCA

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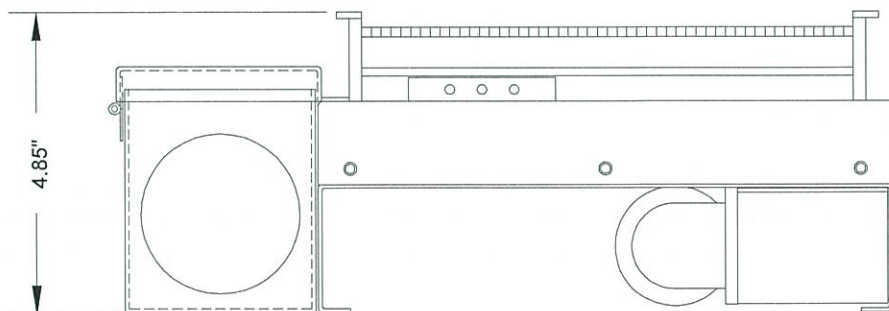
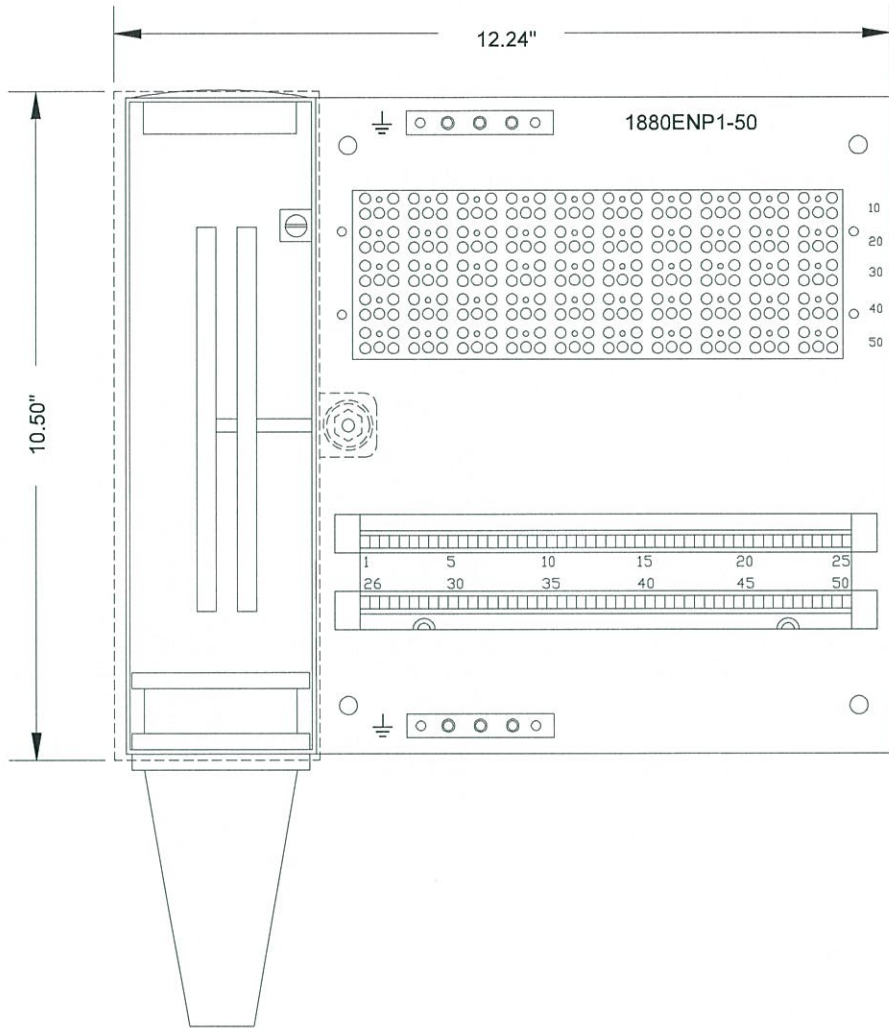
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MS²



Building Entrance Terminals (Indoor)

1880ENM1-50



MS²

Building Entrance Terminals (Indoor)



Premium Quality - Heavy Duty

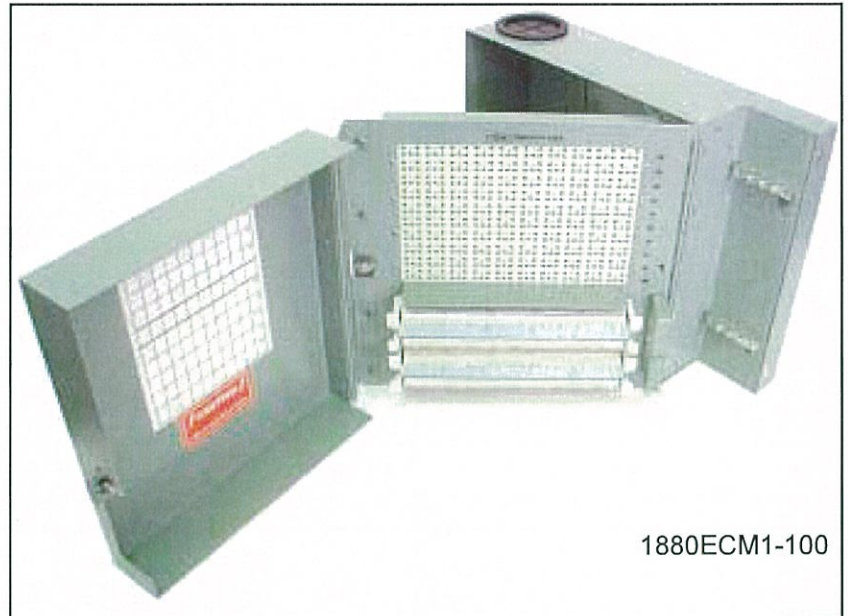
1880ECM1-100

屋外銅線用保安器 (PET)
100対用
Copper Protective Entrance Terminal



Features & Benefits

- MS² connector input and 110 connector output
- protects up to 100 lines
- designed with an internal splice chamber and cover over incoming connection
- stackable to allow for future service expansion
- 26 AWG fuselink included
- external ground connectors accept 6-14 AWG ground wire
- accommodates industry standard 5 pin protection modules
- designed to exceed the requirements set forth in Underwriters Laboratory's UL497



1880ECM1-100

MS²

1880ECM1-100

Ordering Information

Model No.	Order No.	Pair Count	Input	Output	Dimensions (H" x W" x D")	Weight (lbs)
1880ECM1-100	329030	100	MS ² connector	110 connector	11 x 14.75 x 6	15

Note: Protection modules ordered separately.

最新のCIRCA型番リスト (Apr 2016)

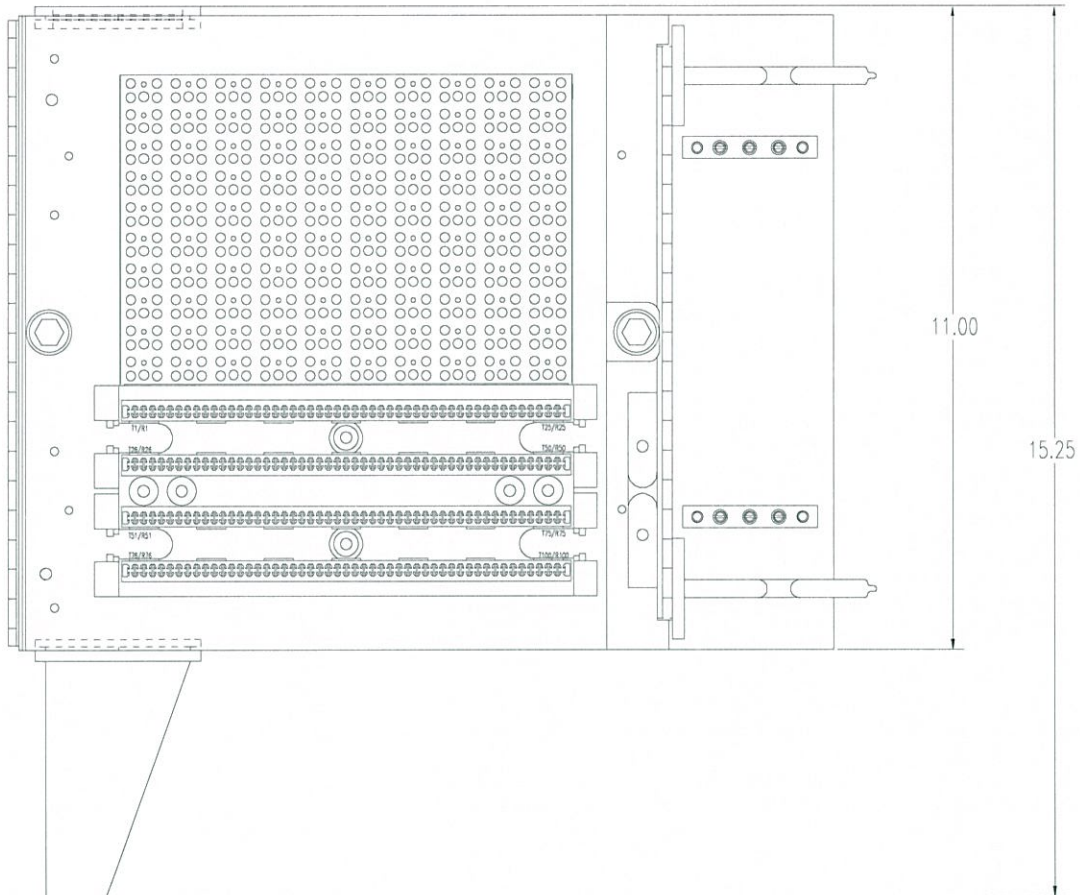
6 PAIR 110/110 PROTECTED TERMINAL	1880ENA1/NSC-6	CIRCA
12 PAIR 110/110 PROTECTED TERMINAL	1880EN1/NSC-12	CIRCA
25 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-25	CIRCA
50 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-50	CIRCA
100 PAIR MS2/110 SPLICE CHAMBER AND COVER	1880ECM1-100	CIRCA

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Building Entrance Terminals (Indoor)

1880ECM1-100



MS²

