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### Installation Instructions Installationsanleitung Manuel d'installation Instrucciones de Instalación Istruzioni per l'installazione



#### ENGLISH

Please read the following before installing your Surge Protective Device:

- Verify the system voltage and configuration on the label if it is appropriate for the application.
- Risk of Electric Shock – Installation and maintenance should be performed by qualified personnel only.
- Disconnect from energized circuits before installing or servicing.
- Safety rules and regulations applicable to all devices connected to power lines should always be followed. National standards and safety regulations must be followed.
- The external mechanical integrity of the device must be checked before installation. Products with visible damage should not be installed.
- Its use is only permitted within the limits shown and stated in these installation instructions. Opening or tampering with the device invalidates the warranty.
- Connecting leads shall be kept as short as possible, without loops and not exceed 0.5m in total length per SPD.
- The minimum distance of the SPD from any earthed conductive surface at which the SPD can be installed is 0mm.

#### DEUTSCH

Bitte lesen Sie die folgenden Angaben vor Installation der Überspannungsschutzgerät:

- Sicherstellen, dass die Systemspannung und -konfiguration auf dem Etikett für die Anwendung geeignet ist.
- Stromschlaggefahr – Installation und Wartung sollten nur vom Fachmann durchgeführt werden.
- Gerät vor der Installation oder Wartung/ Reparatur von spannungsführenden Leitungen trennen.
- Die Sicherheitsvorschriften und -regeln für alle an Stromleitungen angeschlossenen Geräte sind stets zu befolgen. Vor Ort geltende Normen und Sicherheitsvorschriften befolgen.
- Vor der Installation ist die externe mechanische Unversehrtheit des Geräts sicherzustellen. Produkte mit sichtbaren Schäden dürfen nicht installiert werden.
- Das Gerät ist nur für den Betrieb innerhalb der angegebenen Grenzwerte zugelassen. Wird das Gerät geöffnet oder manipuliert, erlischt die Garantie.
- Anschlussleitungen sollten so kurz wie möglich gehalten werden, dürfen keine Schleifen enthalten und nicht länger 0,5 m sein.
- Der Mindestabstand zwischen dem SPD und einer geerdeten Leiterfläche, an der das SPD installiert werden kann, beträgt 0 mm.

#### FRANÇAIS

Veuillez lire les instructions suivantes avant d'installer votre parafoudre:

- Vérifiez que la tension et la configuration du système sur l'étiquette du produit convient à l'application
- Déconnectez le produit de circuits sous tension avant l'installation ou l'entretien
- Les règles de sécurité et les réglementations applicables aux appareils connectés aux lignes électriques doivent toujours être respectées. Les normes nationales et les règles de sécurité doivent être respectées
- L'intégrité mécanique externe du produit doit être vérifiée avant l'installation. Les produits présentant des dommages visibles ne doivent pas être installés
- L'utilisation du produit est uniquement autorisée dans les limites indiquées dans ce manuel d'installation. Le désassemblage ou la modification du produit annule sa garantie
- Les câbles de raccordement doivent être aussi courts que possible, sans boucles et ne pas dépasser une longueur totale de 50 cm par parafoudre.
- La distance minimale du parafoudre par rapport à toute surface conductrice mise à la terre sur laquelle le parafoudre peut être installé est de 0 mm

#### ESPAÑOL

Lea las siguientes instrucciones antes de la instalación de su dispositivo de protección contra sobretensiones:

- Compruebe que la tensión y configuración del sistema que aparecen en la etiqueta son adecuadas para su instalación.
- Riesgo de descarga eléctrica: únicamente personal cualificado puede instalar o dar mantenimiento a este dispositivo.
- Desconecte los circuitos con tensión antes instalarlo o darle mantenimiento.
- Siga siempre todas las normativas y reglamentos de seguridad pertinentes a todos los dispositivos conectados a la red eléctrica. Debe respetar la normativa nacional y los reglamentos de seguridad.
- Compruebe la integridad mecánica externa del dispositivo antes de su instalación. Nunca instale productos que presenten daños visibles.
- Sólo se permite utilizarse dentro de los límites establecidos en estas instrucciones de instalación. Abrir o alterar el dispositivo anula la garantía.
- Las conexiones de cables deben ser lo más cortas posibles, sin bucles y sin exceder 0,5 m de longitud total por cada SPD según la norma IEC 60364-5-53.
- La distancia mínima entre el SPD y la superficie conductora conectada a tierra en la que puede instalarse es de 0 mm.

#### ITALIANO

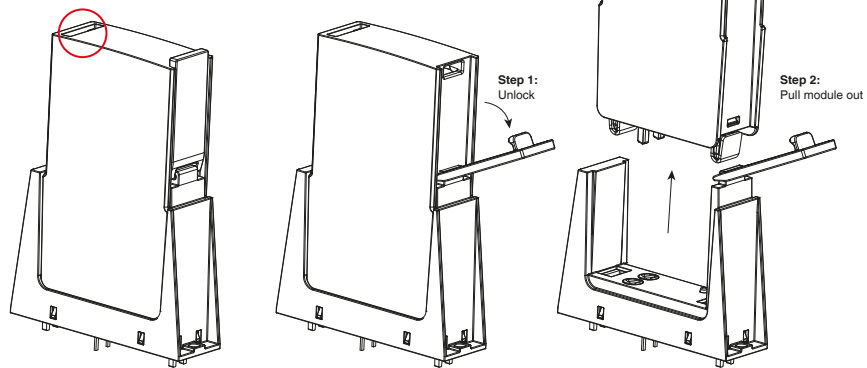
Prima di installare il limitatore di sovratensione (SPD: Surge Protective Device), leggere attentamente quanto segue:

- Verificare la tensione e la configurazione del sistema sull'etichetta per capire se sono appropriati per l'applicazione del dispositivo.
- Rischi di elettrocuzione – L'installazione e la manutenzione devono essere effettuate unicamente da personale qualificato.
- Togliere corrente ai circuiti, prima dell'installazione o della manutenzione.
- È necessario rispettare sempre le normative e i regolamenti di sicurezza applicabili, per tutti i dispositivi collegati alla linea elettrica. È necessario rispettare gli standard nazionali e i regolamenti di sicurezza.
- Prima dell'installazione, è necessario verificare l'integrità meccanica esterna del dispositivo. Non bisogna installare prodotti che mostrino danni evidenti.
- Il suo uso è consentito solo entro i limiti indicati e dichiarati in queste istruzioni di installazione. L'apertura o la manomissione del dispositivo causano l'annullamento della garanzia.
- L'interconnessione delle parti conduttrici deve essere la più corta possibile, evitando la formazione di anelli e non deve comunque superare gli 0,5m di lunghezza totale, per gli SPD.
- La distanza minima del SPD da qualsiasi superficie conduttrice con messa a terra, a cui può essere installato un SPD, è di 0 mm.

Green / Grün  
Vert / Verde

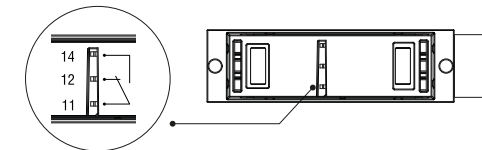
Not green / Nicht grün  
Autre que vert / No esverde / Non verde

Replace Plug  
Stecker ersetzen  
Remplacez la prise  
Sustituya la conexión  
Sostituire la cartuccia

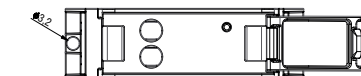
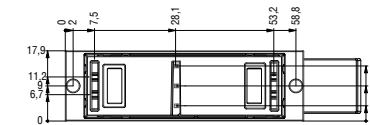
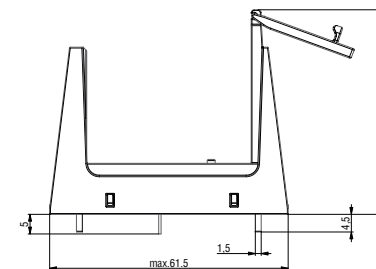


REMOTE CONTACT

A.C.		D.C.		
250V / 1A	125V / 1A	48V / 0.5A	24V / 0.5A	12V / 0.5A
<b>RC contact(s) states</b>		11- 12	11-14	
SPD module functional/ installation is protected		Closed	Open	
SPD module unplugged or non-functional/ installation is unprotected		Open	Closed	



DIMENSIONS [mm]



Air clearances and creepage distances of the track routing according to the standard for the relevant application (for example IPC-2221 product standard, Standard on printed board designs ...) whereby material properties should be considered (e.g. PCB with lower CTI [Comparative Tracking Index] requires higher creepage distances between adjacent contacts as would with lower CTI).

Therefore, an adequate distance, required by national or international standards, must be maintained from:

- Other PCB Sockets
- Other components on the PCB
- PCB tracks

Discharge capacity of the SPD must be considered when designing PCB tracks. See table [2].

PCB TRACK - THICKNESS [2]

Surge ratings	Width of the PCB Track	Thickness of the PCB track [µm]			
		35 µm	70 µm	105 µm	150 µm
$I_n$ 20kA (8/20)		10mm	5.5mm	4mm	2.8mm
$I_{max}$ 40kA (8/20)		19mm	10mm	7mm	5mm
$I_{max}$ 65kA (8/20)		25mm	13mm	9mm	6mm
$I_{imp}$ 6.25kA (10/350)		25mm	13mm	9mm	6mm
$I_{imp}$ 12.5kA (10/350)		52mm	26mm	18mm	13mm
$I_{imp}$ 25kA (10/350)		108mm	54mm	36mm	25mm

In case of different dimensions (width, thickness, 2 layers) the cross section should stay unchanged.

TECHNICAL DATA

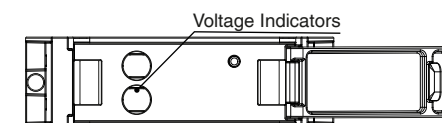
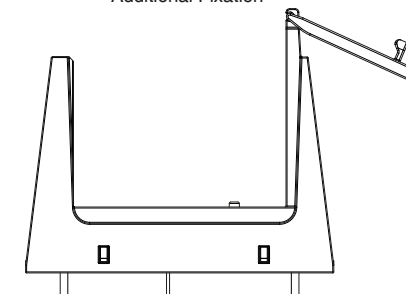
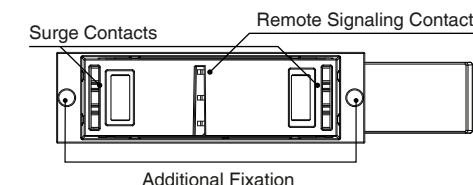
Product name	PCB Socket T1(-R)	
$U_o/U_n$	AC (50-60Hz)	up to 600 V + 10%
$U_c$	AC	up to 750 V
$I_n$ (8/20)		up to 20 kA
$I_{max}$ (8/20)		up to 65 kA
$I_{imp}$ (10/350)		up to 25 kA
Overcurrent Protection (max)		up to 250 A gG
$I_{sCCR}$		up to 50 kA
$T_a$		-40°C to 85°C [-40°F to 185°F]
RH		5%...95%
Mounting	Directly on Printed Circuit Board (PCB)	
Location	Indoor	
IP	20 (built-in PCB, with protection module plugged in) 00 (stand alone component)	
Altitude (max)	13123 ft [4000 m]	

CROSS REFERENCE

Product Combinations with Associated Plugs



INSTALLATION CONFIGURATION

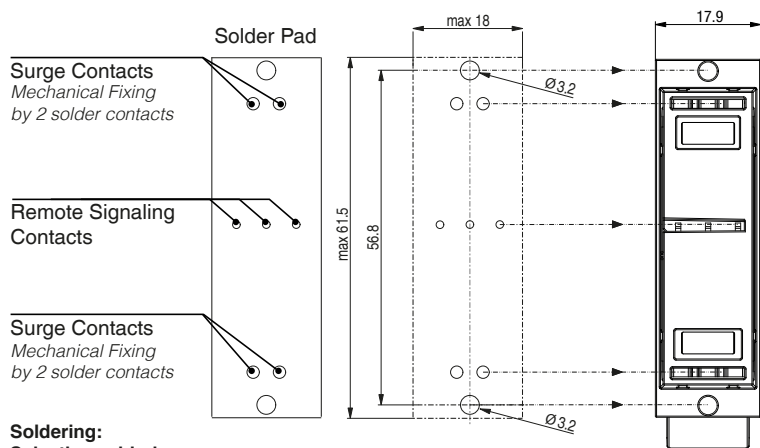


**Additional Fixation**

**Locking Clip**

- Ø3.2mm
- Screw head diameter max. Ø 4mm.
- Usage of countersunk screw head is not allowed.
- Max. torque is 0.25 Nm.
- When having T1 module with T2 size the locking clip is T2 sized.

**PCB socket has to be soldered in one week from opening the product package.**



**Soldering:**  
Selective soldering  
max. 260°C / 5s