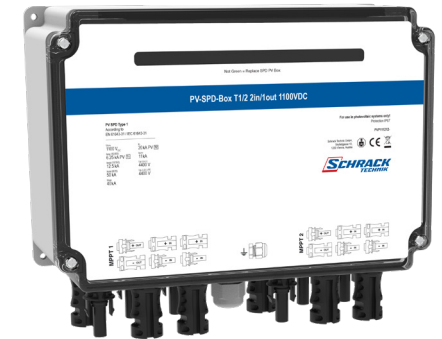


Installation Instructions
Installationsanleitung
Manuel d'installation
Instrucciones de Instalación
Istruzioni per l'installazione



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.

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.

FRANÇAIS

Veillez 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 boucle.

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.

ITALIANO

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

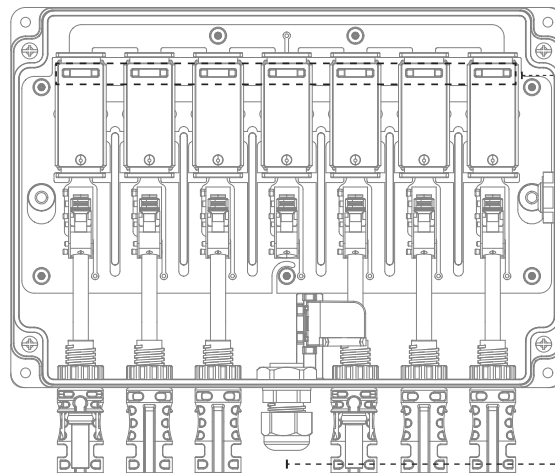
- Verificare la tensione e la configurazione del sistema sull'etichetta per capire se sono appropriati per l'applicazione del dispositivo.
- Rischi di elettrocuzione – L'installazione e la manutenzione devono essere effettuate unicamente da personale qualificato.
- Togliere corrente ai circuiti, prima 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.

TECHNICAL DATA	Product name:		PV-SPD-Box T1/2 2in/1out 1100VDC	PV-SPD-Box T2 2in/1out 1100VDC
	U_{CPV}	DC	1100V	1100V
	I_n (8/20)		20kA	20kA
	I_{max} (8/20)		40kA	40kA
	I_{imp} (10/350)		6.25kA	-
	I_{Total} (8/20) / I_{Total} (10/350)		50kA / 12.5kA	40kA / -
	U_p		4400V	4200V
	I_{scpv}		11kA	9kA
	I_L		45A	45A
	I_{PE}	AC/DC	< 1 mA / < 50 μ A	< 1 mA / < 50 μ A
I_{cpv}	DC	< 50 μ A	< 50 μ A	
SPD Failure Mode		Open Circuit Failure Mode (OCFM)		
Type of PV System		Not earthed/earthed		
Mech. & Envi.	Number of Strings per MPPT		2	
	T_a		-40°C to +85°C [-40°F to +185°F]	
	RH		5%...95%	
	Mounting		Outdoor wall	
	Altitude (max)		4000m [13123ft]	
	IP		67	

INSTALLATION



WARNING!
Before the first use of the PV Box, modules shall be firmly pressed into the PCB, as connecting on a dislocated SPD module can result in non-functional surge protection.



Fault Indication

- Green / Grün
- Not Green / Nicht grün
- ↓
- Replace PV Box
Ersetzen PV Box

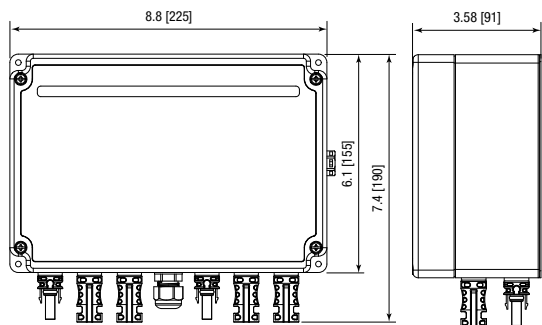
● **Wire insulation outer diameter:**
min ϕ 4 mm
max ϕ 8 mm

● **Conductor:**
 ϕ 0.2mm² - 16mm²

Stranded / Flexible
PV cables with ferrule only

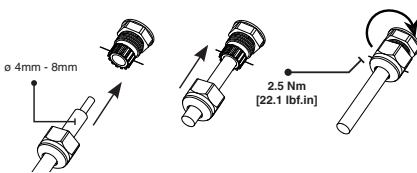


DIMENSION DRAWING

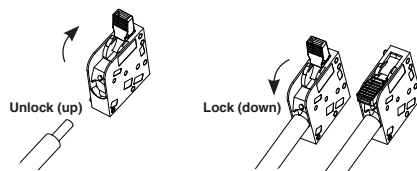


CONNECTING CABLES

1 Cable Gland

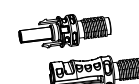


2 Connectors

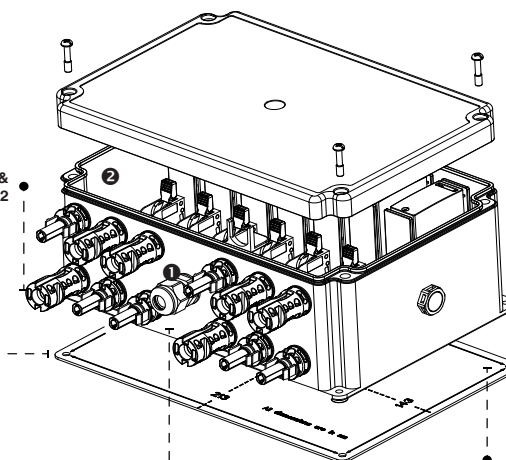


MOUNTING & PRODUCT DESCRIPTION

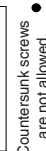
- 4x \oplus PH2 / Slot 1/4
1.5 Nm [13.3 lbf.in]



● Staubli MC4 & Staubli MC4-EVO2



max. ϕ 8.2 mm
max. ϕ 4.2 mm
6 mm

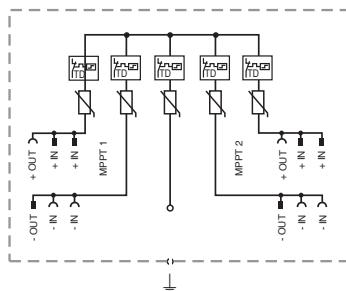


Countersunk screws are not allowed.

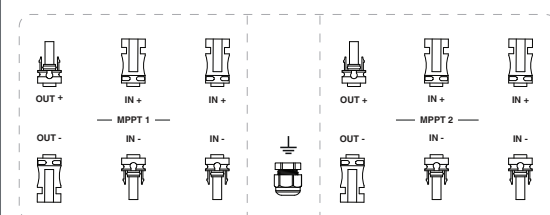
● Cable Gland PG9

● Drill template
146 / 88 mm
[5.75 / 3.64"]

INTERNAL CONFIGURATION



Inputs / Outputs



Polarities can be reversed, but this must be applied uniformly on all connections.

Determination of which connector in a connector block will be used as input and which as output can also be determined by installer differently, but should be kept the same plug orientation across the whole installation.

+/- min ϕ 6mm² [T1], min ϕ 2.5mm² [T2] ↓, PE min ϕ 16mm² [T1], min ϕ 6mm² [T2]

For earthed PV System the wiring is the same, without connecting (-) to PV box.