

PCB SUPPORTS

English

Extruded and Modular Supports

The recent development of electronic equipment used in industrial automation requires a PCB to be mounted in a safe way according to the updated legislative regulations.

In order to comply with these requirements SAURO offers a safe and rational solution: self-extinguishing plastic PCB Supports.

Two **Support** types are available: **Extruded Supports** (STC072 and STC107 Series) and **Modular Supports** (SMC072 and SMC107 Series). Both allow the PCB to be mounted on DIN EN 50022, DIN EN 50035, DIN EN 50045 rails.

Extruded Supports are composed of a base element, obtained from an **extruded bar, cut to standard or custom length**, and equipped with **accessories for rail mounting**. An accessory for Mounting on the Wall is also available.

Modular Supports are composed of a **reduced number of moulded plastic components that can be combined together to obtain Supports for a variety of PCB lengths**.

Two dimensional Series of Supports are available, respectively for **72 mm (2.835 in) wide boards** (STC072 and SMC072 Series) and for **107.5 mm (4.232 in) wide boards** (STC107 and SMC107 Series).

With the use of **adapters, 100 mm (3.937 in) and 68 mm (2.677 in) wide PCBs** can be mounted respectively on STC107 and STC072 Series Supports.

It is also possible to mount a **transparent plastic Protection Cover** that limits the access to the electronic circuit (available only for STC107 Series).

The typical configuration is composed of two Lateral Elements, a Central Body and one or more Hooks for mounting on DIN Rail.

With short Supports for lightweight boards, Lateral Elements with right-hand and left-hand Hooks can be used, therefore it is not necessary to use Hooks for mounting on DIN Rail.

The Central Body can be cut from an Extruded bar or built from a number of Base Elements (Modular), depending on the Support length desired, as explained in the tables on the following pages.

The assembling sequence is as follows:

- assemble all the support components except for one of the Lateral Elements;
- insert the PCB from the open end;
- close the support with the remaining Lateral Element;
- snap mount onto the DIN rail;
- apply the Protection Cover, if needed.

In order to remove the Support from the omega-shaped DIN rail, lever on the back hook.

Extruded Supports can be supplied, with a surcharge, with one Lateral Element already assembled; this option must be clearly requested.

Italiano

Supporti estrusi e modulari

Il recente sviluppo degli apparati elettronici impiegati nell'automazione industriale richiede di poter appoggiare i circuiti elettronici su scheda in modo sicuro, secondo le più aggiornate prescrizioni legislative.

SAURO, a questo scopo, propone una soluzione sicura e razionale: i Supporti Portaschede in materiale plastico autoestinguente.

I **Supporti** sono realizzati in due tipologie costruttive: **Supporti Estrusi** (Serie STC072 e STC107) e **Supporti Modulari** (Serie SMC072 e SMC107), che consentono di montare delle schede elettroniche su guide DIN EN 50022, DIN EN 50035, DIN EN 50045.

I **Supporti Estrusi** sono composti da un elemento base, ricavato da una **barra estrusa, tagliato a misura standard o su richiesta**, corredato di **accessori per il montaggio**. E' disponibile un accessorio particolare per consentire il fissaggio a parete.

I **Supporti Modulari** sono composti da un **numero ridotto di particolari plastici stampati, componibili ad incastro** per ottenere dei **Supporti Portaschede di varia lunghezza**.

Sono disponibili due Serie dimensionali di Supporti, rispettivamente per **schede da 72 mm (2.825 in) di larghezza** (Serie STC072 e SMC072) e per **schede da 107,5 mm (4.232 in) di larghezza** (Serie STC107 e SMC107).

Con gli **adattatori** è possibile utilizzare le Serie STC107 e STC072 per alloggiare rispettivamente **schede con larghezza 100 mm e 68 mm**.

E' possibile montare una **Copertura di Protezione in materiale plastico trasparente** al fine di limitare l'accessibilità al circuito elettronico (solo Serie STC107).

La configurazione tipica è composta da due Testate Laterali, dal Corpo Centrale e da uno o più Agganci per Guida DIN.

Con i Supporti corti per schede di peso modesto si possono usare le Testate con Aggancio Destra e Sinistra, evitando perciò l'impiego dell'Aggancio per Guida DIN.

Il Corpo Centrale può essere il Profilo tagliato a Misura (Estruso) oppure un certo numero di Elementi Base (Modulare) composti, come spiegato nelle tabelle alle pagine successive, secondo la lunghezza da ottenere.

Il montaggio avviene secondo la seguente sequenza:

- montaggio di tutti gli elementi del supporto tranne una delle testate;
- inserimento della scheda dall'estremità aperta;
- chiusura con la testata libera;
- aggancio a scatto sulla guida DIN;
- montaggio dell'eventuale protezione.

Per smontare il Supporto dalle guide DIN a omega è sufficiente far leva sul gancio sporgente dal retro.

I Supporti Estrusi possono essere forniti, con sovrapprezzo, anche con una delle testate già assemblata; questa opzione deve essere richiesta in modo esplicito.

Deutsch

Strangprofile und modulare Leiterplattenmodule

Die jüngste Entwicklung elektronischer Geräte in der industriellen Automation erfordert, dass die Leiterplatten auf sichere Art und nach den neusten gesetzlichen Vorschriften platziert werden können

SAURO schlägt zu diesem Zweck eine sichere und zweckmäßige Lösung vor: Leiterplattenmodule in selbstverlöschendem Plastikmaterial.

Die **Module** sind in 2 Bauarten aufgeteilt: **Strangprofil** (Serie STC072 und STC107) und **modulare Module** (Serie SMC072 und SMC107), die es ermöglichen, Leiterplatten auf DIN EN 50022, DIN EN 50035, DIN EN 50045 Schienen zu montieren.

Die **Strangprofile** bestehen aus einem Basiselement, das aus einer **Extrusionsstange gefertigt und nach Standard- oder kundenspezifischem Maß zugeschnitten wird**, ausgestattet mit **Zubehör für die Montage**. Es ist außerdem ein spezielles Zubehör zur Wand-Fixierung erhältlich.

Die **modularen Module** bestehen aus einer geringen **Anzahl Plastikelemente, welche kombinierbar sind, um Leiterplattenmodule unterschiedlicher Art zu erhalten**.

Es sind zwei verschiedene dimensionale Serien von Modulen erhältlich, für **Leiterplatten von 72 mm** (Serie STC072 und SMC072) und für **Leiterplatten von 107,5 mm** (Serie STC107 und SMC107) **Breite**.

Mit den **Adaptern** ist es möglich, die Serie STC107 und STC072 zu verwenden, für Leiterplatten mit einer **Breite von 100 mm und 68 mm**.

Es ist möglich, eine **transparente Plastikschutzabdeckung aufzubringen**, um die Zugänglichkeit zum Stromkreis einzuschränken (nur Serie STC107).

Die typische Darstellung besteht aus 2 Seitenelementen, dem mittleren Teil, und einem oder mehreren Fußelementen für DIN Schienen.

Bei kurzen Modulen für leichtgewichtige Leiterplatten, können die linken und rechten Seitenelemente mit Anrastung verwendet werden, ohne die Fußelemente für DIN Schienen benutzen zu müssen.

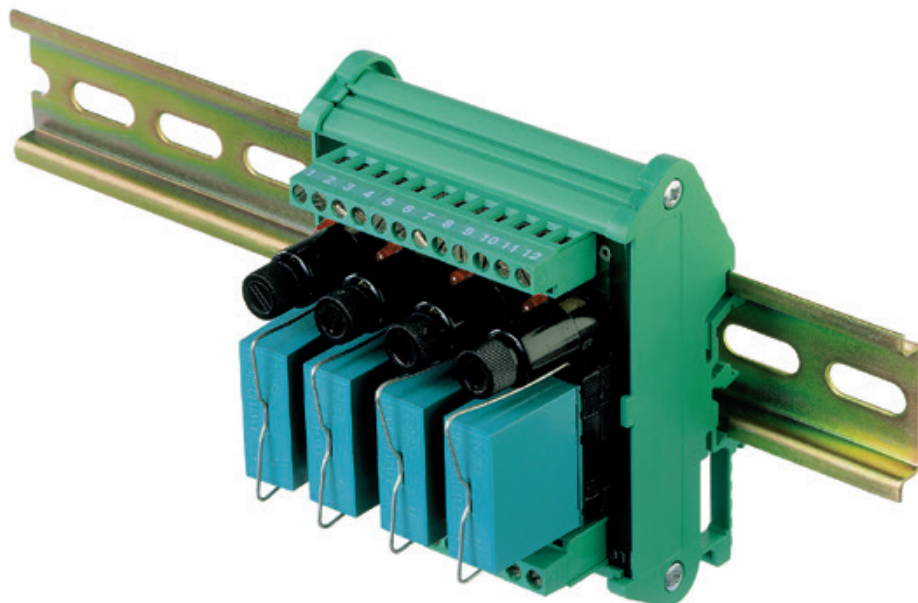
Der mittlere Teil kann das nach Maß zugeschnittene Profil (Strangprofil) oder eine bestimmte Anzahl kombinierter Basiselemente (modular) sein, je nach gewünschter Länge, wie auf den Tabellen der folgenden Seiten erklärt wird.

Die Reihenfolge der Montage ist wie folgt:

- Montage aller Modulelemente, außer einem Seitenelement;
- Einfügen der Leiterplatte von der offenen Seite her;
- Schließung mit dem anderen Seitenelement;
- Schnapp-Anrastung auf der DIN Schiene;
- Montage der eventuellen Schutzabdeckung.

Um den Halter aus der Omega-förmigen DIN Schiene abzumontieren, genügt es, auf die hintere Anrastung zu drücken.

Die Strangprofile können, zu einem Aufpreis, auch mit einem schon montierten Seitenelement geliefert werden; diese Option muss ausdrücklich verlangt werden.





Français Supports Extrudés et Modulaires

Le développement récent de l'utilisation d'appareils électroniques au sein des équipements automatiques industriels implique que les C.I. utilisés soient fixés d'une manière sûre et conforme aux législations actuelles.

Afin de répondre à ces exigences, SAURO vous propose une solution sûre et rationnelle : les Supports pour C.I. en plastique auto-extinguible.

Ces Supports sont divisés en deux catégories : les Supports Extrudés (Séries STC072 et STC107) et les Supports Modulaires (Séries SMC072 et SMC107), qui permettent de monter les C.I. sur des rails DIN EN 50022, DIN EN 50035 et DIN EN 50045.

Les Supports Extrudés se composent d'une embase extrudée, disponible en longueur standard ou sur mesure, et sont équipés d'accessoires pour le montage sur rail. Un accessoire particulier est également disponible en cas de montage mural.

Le Supports Modulaires se composent eux de pièces en plastique moulée, qui peuvent être assemblées afin d'obtenir des Supports pour C.I. de différentes longueurs.

Deux Classes Dimensionnelles de Supports sont disponibles afin d'être utilisées avec les C.I. de 72 mm (2.825 in) de large (Séries STC072 et SMC072) ou de 107.5mm (4.232 in) de large (Séries STC107 et SMC107).

Grâce à l'utilisation d'adaptateurs, il est possible d'utiliser les Séries STC107 et STC072 afin de monter des C.I. de largeur 100 et 68 mm.

Il est également possible de fixer un Couvercle de Protection en plastique transparent afin de limiter l'accessibilité au circuit électronique (uniquement sur la Série STC107).

En règle générale le support est constitué de Deux Eléments Latéraux, d'une Embase Centrale et d'un ou plusieurs Pieds pour le montage sur Rail DIN.

Avec les Supports courts pour C.I. légers, il est possible d'utiliser des Eléments Latéraux déjà pourvus de Pieds (à Droite et à Gauche) permettant la fixation du C.I. sans avoir recours aux Attaches pour le montage sur Rail DIN.

L'Embase Centrale peut être conçue sur Mesure (modèle Extrudé) ou bien composée d'Eléments de Base à assembler (modèle Modulaire) selon la longueur désirée, comme illustré sur les pages suivantes.

Le montage s'effectue comme suit :

- assemblage de tous les Eléments du Support à part l'un d'eux ;
- insertion du C.I. par l'extrémité ouverte ;
- fermeture du Support avec l'Elément restant ;
- accrochage sur le rail DIN ;
- montage de l'éventuel Couvercle de protection.

Faire lever sur le pied ressortant à l'arrière du Support pour le démonter du Rail DIN.

Les Supports Extrudés peuvent également être fournis avec un des Eléments Latéraux pré-assemblé, sur demande du client et moyennant un surcoût.

Español Soportes extruidos y modulares

La reciente evolución de los aparados electronicos en la automatización industrial pide que se pueda poner a los circuitos electronicos sobre la placa con seguridad, haciendo referencia a las ultimas prescripciones legislativas.

Por eso Sauro propone una solución segura y racional: los soportes que contienen las placas son de material plastico autoextinguible.

Los soportes están contruidos de dos formas: Soportes extruidos (serie STC072 y STC107) y Soportes modulares (serie SMC072 y SMC107) que permiten de montar las placas electronicas sobre guias DIN EN 50022, DIN EN 50035, DIN EN 50045.

Los Soportes Extruidos están compuestos de un elemento base, obtenido de una barra extruida, cortada de una medida estandar o personalizada y equipado de accesorios para el montaje. Está disponible tambien un accesorio particular que permite la fijación a la pared.

Los Soportes Modulares están compuestos de algunas piezas plasticas especiales a partir de muelles, que pueden ir encajandose para que se pueda obtener portaplacas de varias longitudes.

Están disponibles dos tipos de dimensiones de soportes: para placas desde 72 mm (2.825 in) (serie STC072 y SMC072) y para placas desde 107,5 mm (4.232 in) (serie STC107 y SMC107) de anchura.

Con los adaptadores es posible utilizar la serie STC107 y STC072 para alojar placas con anchura 100 mm y 68 mm.

Tambien es posible montar una cobertura de protección en material plastico transparente para limitar el acceso al circuito electronico (sólo serie STC107).

La configuración típica está compuesta por dos elementos laterales, por una parte central y por uno o más enganches por guia DIN.

Con soportes cortos, para placas de peso modesto se pueden utilizar elementos laterales con enganches derecha y izquierda evitando la utilización del enganche para la guia DIN.

La parte central puede ser el perfil cortado a medida (extruido) o otros componiendo diferentes elementos (modular), como explicaremos en las paginas siguientes a traves de tablas; según la longitud que se debe obtener.

El montaje se desarrolla en esta secuencia:

- montaje de todos los elementos del soporte menos uno de los extremos laterales;
- introducción de la placa desde la extremidad abierta;
- cierre con el elemento lateral libre;
- enganche encajado sobre guia DIN;
- montaje de la protección (optional).

Para desmontar el soporte desde guia DIN hasta el tipo omega será suficiente apretar el enganche especialmente visible en la parte de atras.

Los soportes extruidos pueden ser entregados con un sobreprecio, tambien con uno de los dos elementos laterales ensablados; esta opción debe ser pedida de manera explicita.

Chinese 挤压型支座与组合型支座

鉴于工业自动化领域不断更新的技术规范要求，电子设备的发展趋势需要将PCB放置于更安全的工业环境中。

为了符合这些规范要求，SAURO提供了一个安全且理性的解决方案：自熄灭式塑料制成的PCB支座。

有两种类型的支座：挤压型（STC072系列和STC107系列）和组合型（SMC072系列和SMC107系列），这两种支座均可放置于DIN EN 50022、DIN EN 50035和DIN EN 50045导轨上。

挤压型支座由一块挤压型材按标准长度或客户定制的长度切割而成，且提供轨装用附件，也可提供壁挂用附件。

组合型支座由几个塑料模件相互组合而成，适用于各种长度的PCB。

可提供两大尺寸规格，分别适用于宽度为72mm（STC072系列和SMC072系列）的线路板和宽度为107.5mm（STC107系列和SMC107系列）的线路板。

若使用适配件，则可以将宽度为100mm和68mm的PCB分别放置于STC107系列和STC072系列支座。

还可使用一个透明的保护罩，这样可以更好地保护印刷线路板（只适用于STC107系列）。

典型配置包括两个侧面组件，一个主体部件以及一个或多个安装脚，以便安装在DIN导轨上。

要固定轻量级的支座，可使用带导轨安装脚的侧面组件，无需使用额外的安装脚。

主体部件由一块挤压型材切割而成，或由一些基座组件（可组合式模件）构成。这都取决于所需的支座长度，可参考以下各页所列表格。

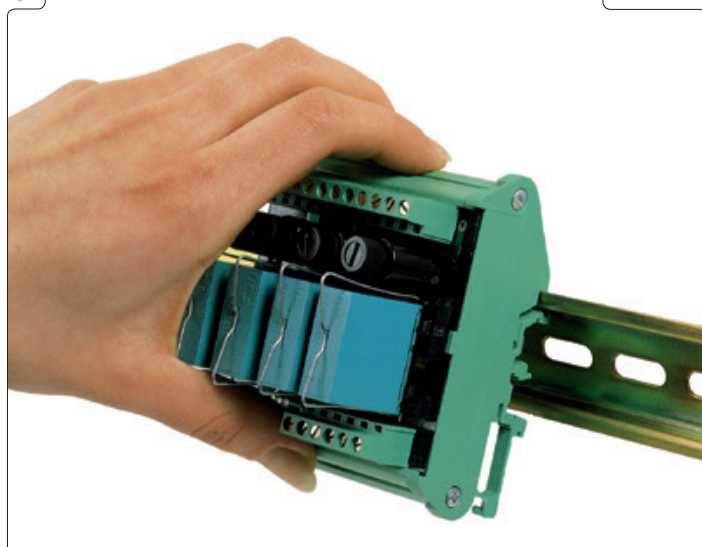
装配的顺序如下：

- 装配除一个侧面组件以外的其余部件；
- 将PCB从开口处嵌入；
- 用剩余的那个侧面组件封闭支座；
- 将支座安装在DIN导轨上；
- 视具体情况，可加装保护罩。

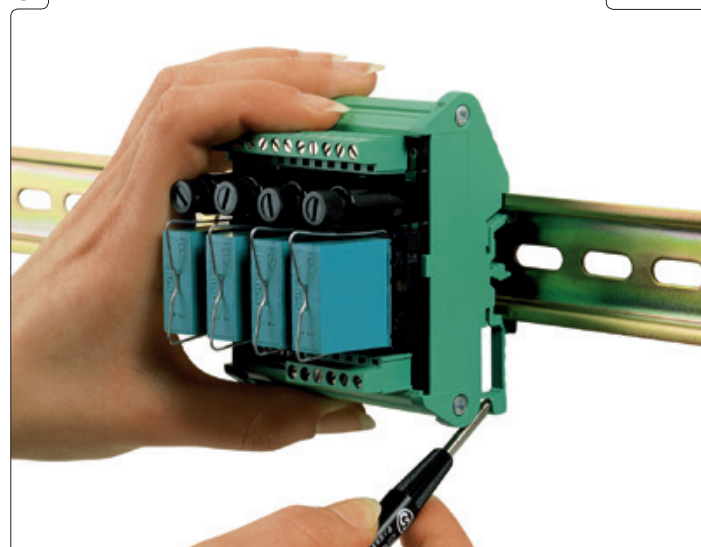
要从omega形状DIN导轨上卸载支座，只需抬起后侧的安装脚即可卸载。

可提供已装配有一个侧面组件的挤压型支座，价格会有一定的上浮；这一配置须由客户明确提出。

Application sample



Application sample



SMC 072

Modular Supports



Width of PCB:
72 mm (2.835 in)



Support Type:
MODULAR



Standard Colour:
GREEN



Thickness of PCB:
.063 in (1.6 mm)



Material:
PA6.6 (UL94-V0)



SMC072



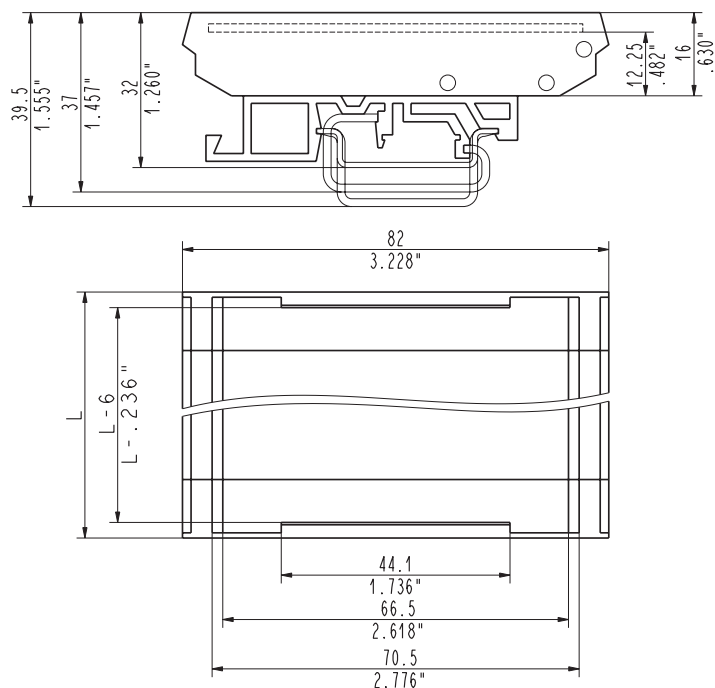
SMC 072

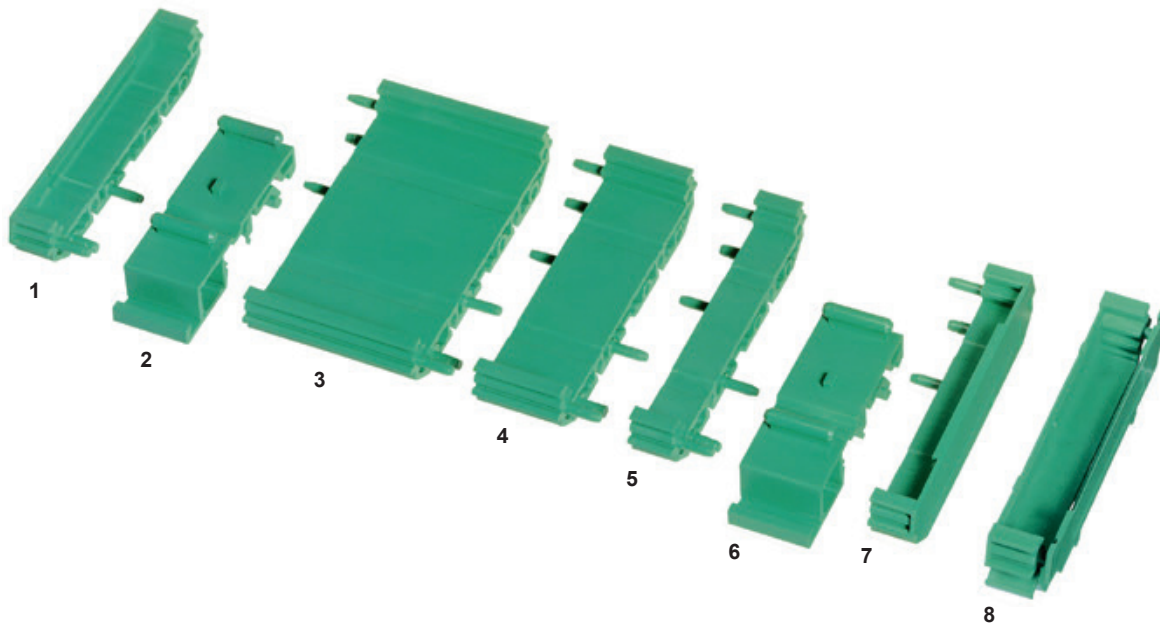
Modular Supports for 72 mm (2.835 in) Wide Boards

Base Elements with two **Lateral Elements** and one or two **DIN Rail Hooks** are combined together in order to obtain PCB Supports according to the following table.

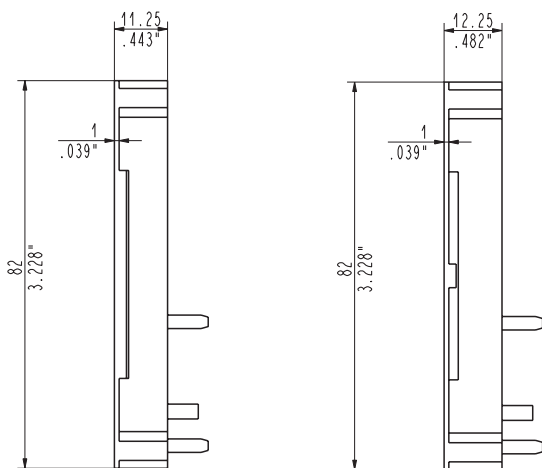
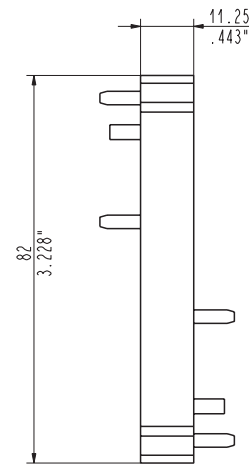
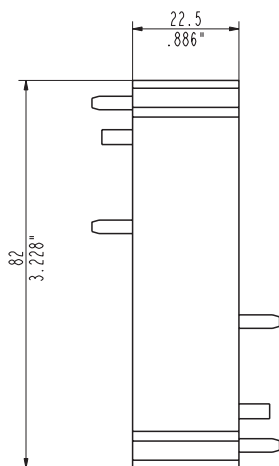
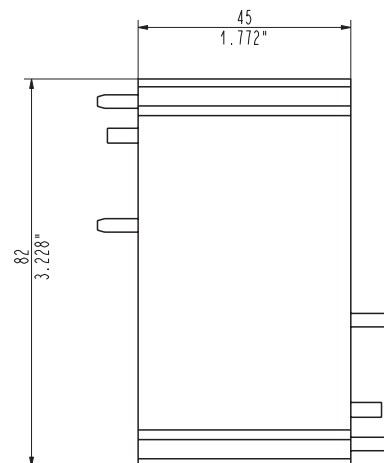
For 11 mm (.433 in) wide PCBs, a single **Complete Module** is provided by assembling two parts together.

Modular Supports for 72 mm (2.835 in) Wide Boards



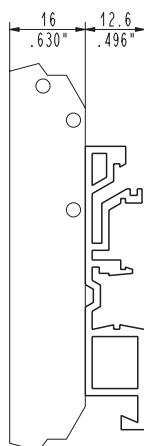


- 1 SMC072T011
- 2 SMC072P020
- 3 SMC072S045
- 4 SMC072S022
- 5 SMC072S011
- 6 SMC072P020
- 7 SMC072T011
- 8 SMC072T013

**Lateral Element****SMC072T011****SMC072T012****Base Element****SMC072S011****Base Element****SMC072S022****Base Element****SMC072S045**

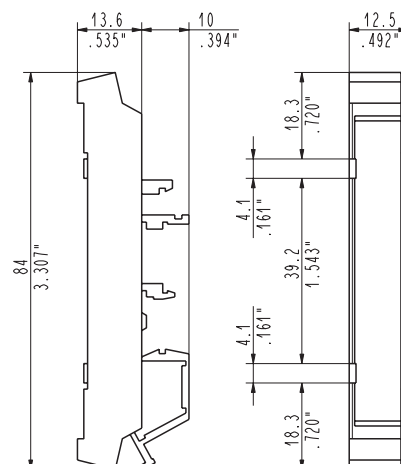
Modular Supports

DIN Rail Hook



SMC072P020

Complete Module



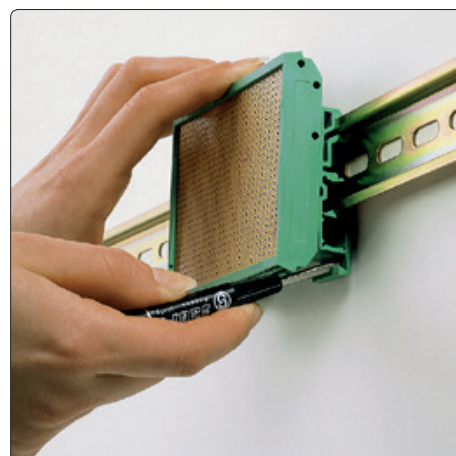
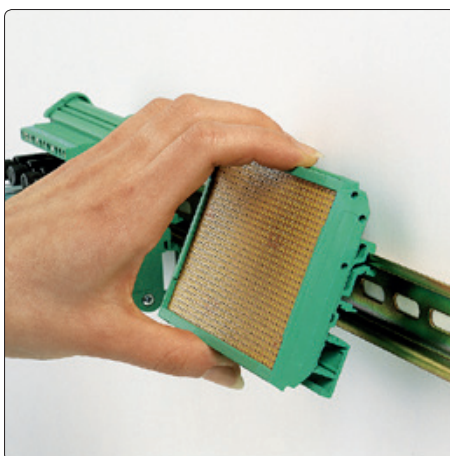
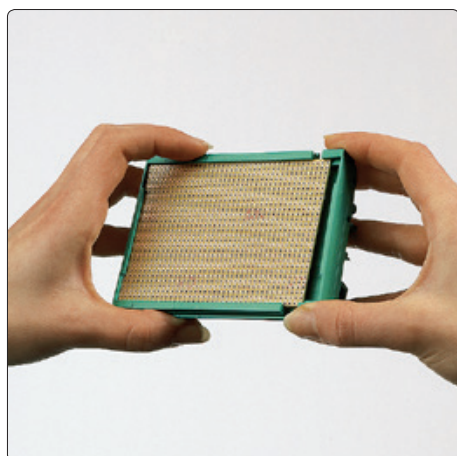
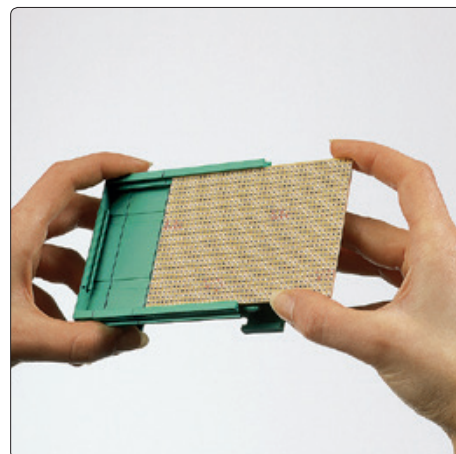
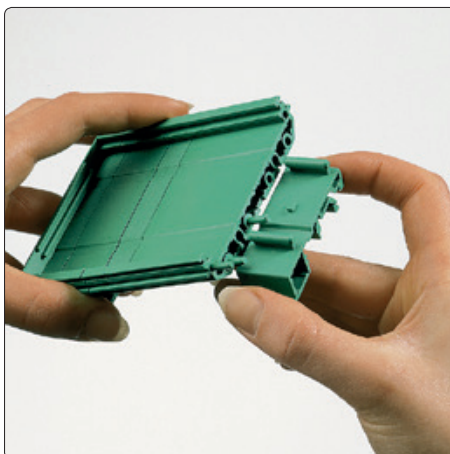
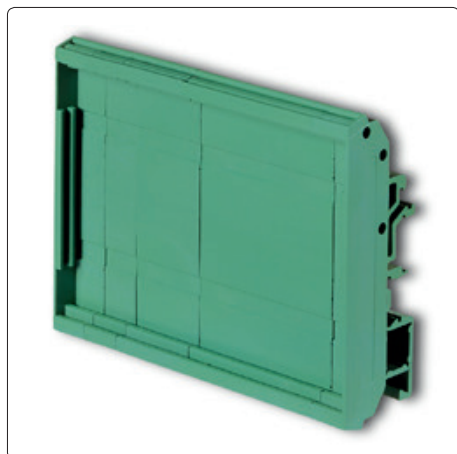
SMC072T013

Description	Part-Number	Pcs / pack
Lateral Element with Rail Hook	SMC072T011	50
Base Element	SMC072S011	50
Base Element	SMC072S022	50
Base Element	SMC072S045	50
DIN Rail Hook	SMC072P020	50
Complete Module	SMC072T013	50

The following table shows the configuration of support elements and the corresponding total length of the assembled support and the length of the PCB.

Length of PCB		Length of support		Lateral Element	Base Element	Base Element	Base Element	DIN Rail Hook	Complete Module
(mm)	(in)	(mm)	(in)	SMC072T011	SMC072S011	SMC072S022	SMC072S045	SMC072P020	SMC072T013
11,00	.433	12,50	.492						1
20,00	.787	22,50	.886	2				1	
31,25	1.230	33,75	1.329	2	1			1	
42,50	1.673	45,00	1.772	2		1		2	
53,75	2.116	56,25	2.215	2	1	1		2	
65,00	2.559	67,50	2.657	2			1	2	
76,25	3.002	78,75	3.100	2	1		1	2	
87,50	3.445	90,00	3.543	2		1	1	2	
98,75	3.888	101,25	3.986	2	1	1	1	2	
110,00	4.331	112,50	4.429	2			2	2	
121,25	4.774	123,75	4.872	2	1		2	2	

SMC 072 Modular Supports



SMC 107

Modular Supports



Width of PCB:
107.5 mm (4.232 in)



Support Type:
MODULAR



Standard Colour:
GREEN



Thickness of PCB:
.063 in (1.6 mm)



Material:
PA6.6 (UL94-V0)



SMC107



SMC 107

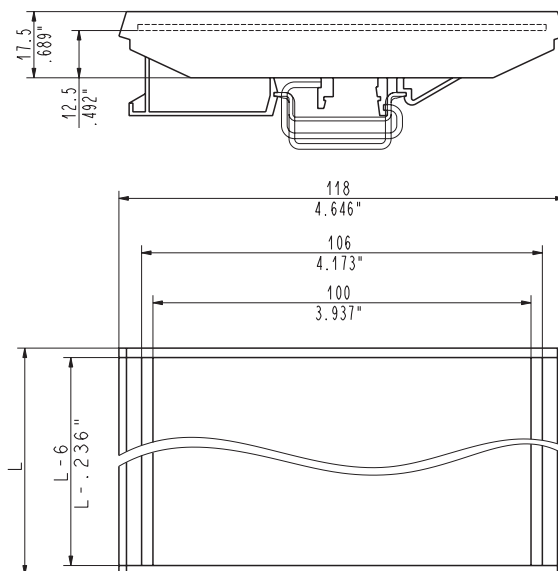
Modular Supports for 107.5 mm (4.232 in) Wide Boards

Base Elements and **Lateral Elements** are combined together to obtain PCB Supports according to the table on the next page.
At least one of the **Base Elements** must be provided with a **Hook**.

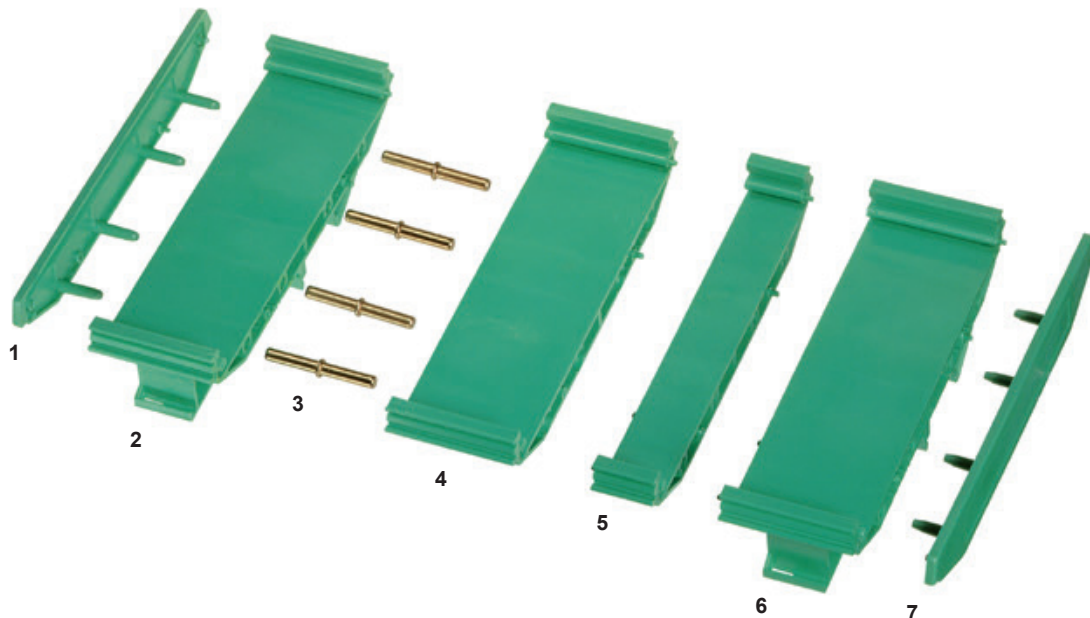
2 to 4 **Stiffening Copper Alloy Elements** must be inserted between any two **Base Elements**.

For a correct mounting of the PCB Support, if an **SMC107S016 Base Element** is used, it **must be positioned between two SMC107S035 or SMC107P035 Base Elements**.

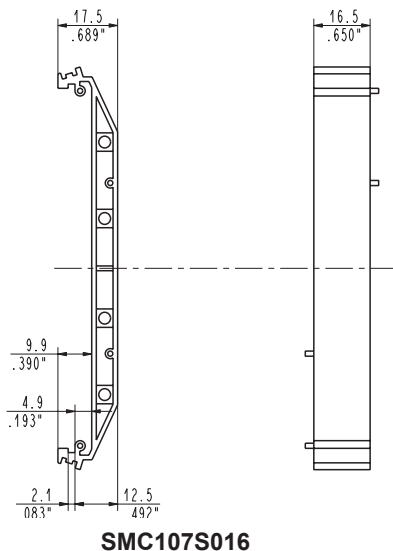
Modular Supports for 107.5 mm (4.232 in) Wide Boards



- 1 SMC107T000
- 2 SMC107P035
- 3 SMC107S00T
- 4 SMC107S035
- 5 SMC107S016
- 6 SMC107P035
- 7 SMC107T000

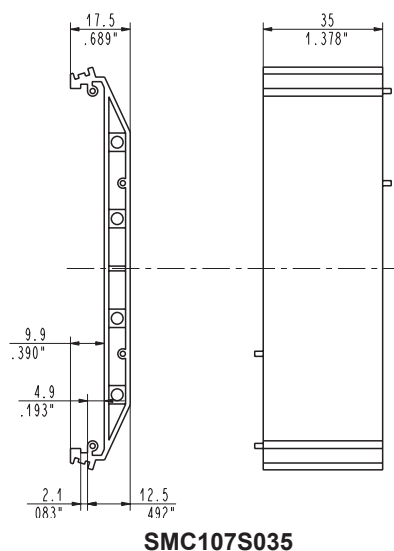


Base Element



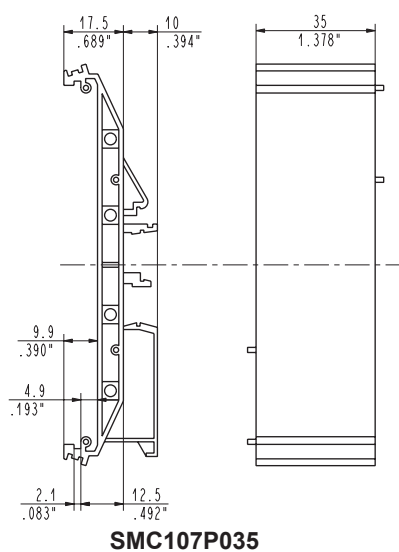
SMC107S016

Base Element



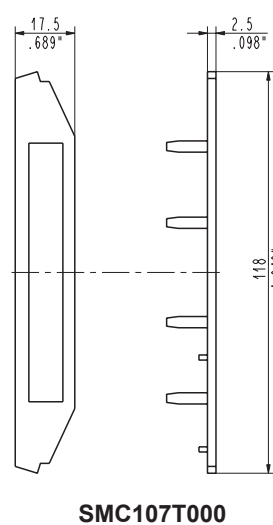
SMC107S035

Base Element with Hook



SMC107P035

Lateral Element

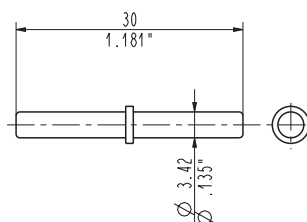


SMC107T000

Description	Part-Number	Pcs / pack
Base Element	SMC107S016	50
Base Element	SMC107S035	50
Base Element with Hook	SMC107P035	50
Lateral Element	SMC107T000	100

Modular Supports

Stiffening Copper Alloy Element



SMC107S00T

SMC107S00T

Stiffening Elements

Stiffening Copper Alloy Elements are used to increase the **strength** of the **Modular Supports** and must be inserted into the proper Base Element holes at every juncture between an Element and the adjacent one.

They can be used from 2 to 4 per side between two SMC107S035 or SMC107P035 Elements, while only 2 per side are needed for the SMC107S016 Element.

Description	Part-Number	Pcs / pack
Stiffening Copper Alloy Element	SMC107S00T	100

The following table shows the configuration of support elements and the corresponding total length of the assembled support and the length of the PCB.

Length of PCB		Length of support		Lateral Element	Base Element	Base Element	Base Element With Hook	Stiffening Copper Alloy Element
(mm)	(in)	(mm)	(in)	SMC107T000	SMC107S016	SMC107S035	SMC107P035	SMC107S00T
38.50	1.516	40.00	1.575	2			1	
55.00	2.165	56.50	2.224	2	1		1	
73.50	2.894	75.00	2.953	2			2	2 ÷ 4
90.00	3.543	91.50	3.602	2	1		2	4
108.50	4.272	110.00	4.331	2		1	2	4 ÷ 8
125.00	4.921	126.50	4.980	2	1	1	2	6 ÷ 8
143.50	5.650	145.00	5.709	2		2	2	6 ÷ 12
160.00	6.299	161.50	6.358	2	1	2	2	8 ÷ 12
178,50 mm	7.028 in	180,00 mm	7.087 in	2		3	2	8 ÷ 16

SMC 107 Modular Supports

