

Solar Energy

You create power from sunlight.  
We help to make it possible.

*HellermannTyton – Competence  
for renewable energies*

**HellermannTyton**



**You insist on the highest quality so that your products perform in all conditions, both now and in the future. Only when all the components meet the highest standards can you achieve a service life of 25 years and beyond. Our aim is to help you achieve this goal.**

For the production and the assembly of each individual module, for secure connections and cable routing, HellermannTyton is your ideal partner.

As specialists for cable ties, fastening systems, cable protection and identification solutions, we are constantly setting new standards – always with our customers objectives in mind. Our philosophy is to set ourselves the highest standards. We strive to match all of your requirements with customised solutions.

You develop ideas for the energy of tomorrow.  
We implement them for you today.

*Our industry expertise*



You benefit from our capability to develop new, customised solutions as well as our existing, comprehensive product range of more than 50,000 articles. You can be sure that our products meet your needs and requirements.

That is why an open dialogue with you is our highest priority. Your industry experience combined with our first-class development competence leads to the kind of innovations that fulfil your requirements exactly. A worldwide network of visionary developers and skilled technicians is committed to achieving the optimal solution. Our combined know-how creates the innovations for the future.



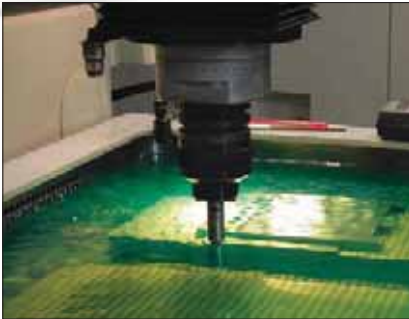
**Lasting and effective power output, safety, high mechanical strain, severe material wear, extremes of weather – the demands placed on solar energy systems are enormous. It's a good thing you can rely on the products and services of HellermannTyton.**



*Modern technology means shorter development times: the digital test model of a retaining clip.*

You place the highest demands on your products.  
We have the resources to meet them.

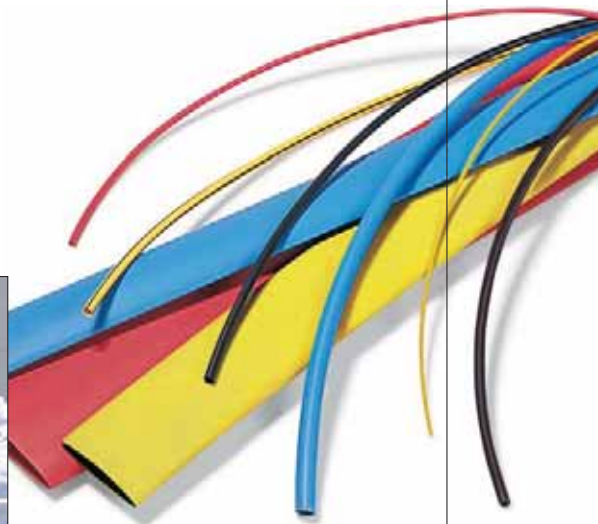
## *Our quality awareness*



*Precision meets passion: our company's tool and mould-building facilities.*



*Intensive and continuous testing is part of our comprehensive quality management.*



Quality starts with the first idea of a product. The right decisions in the planning phase – material used, type of processing, manufacturing location and naturally choice of partners – are essential for future success.

HellermannTyton offers you many unique advantages.

1. We use only raw materials that satisfy our standards for high-quality and your particular applications.

2. Because we build our own tools and moulds, we can work to the highest level of precision right from the very beginning.

3. Whilst trust is good, control is better. We uphold the strictest criteria for work processes and product quality. That way, we can ensure a consistently high level of quality.

As a result our products for the solar industry are characterised by their durability, reliability and strength. They are resistant to UV-radiation, extremes of heat and cold, to flames, to vibration and to a wide range of industrial chemicals and substances.

For HellermannTyton, this extraordinary striving for quality is a matter of course. For you, it means very long service life of your solar systems, even under the most difficult conditions.





**Find what you are looking for! The HellermannTyton main catalogue.**

Over 50,000 articles can be found offering you the perfect solution for your cable management. The HellermannTyton main catalogue, with its colour-coded tabs, self-explanatory symbols and a fold-out guides you to the product you are looking for.



Ideal for PV string wiring and module connection lines: the innovative electrical, automatic bundling system **AT3080** for rapid, waste-free cable tie application.

You insist on the best components.  
We are happy to provide you with them.

## Our product range

The product portfolio of HellermannTyton grows each day and with each new challenge to design and manufacture customised solutions. The resulting variety might be to your advantage: With 50,000 different articles, we may already have exactly the right solution for you.

Our constant intensive analysis of the market enables us to recognise technical developments and market trends at an early stage. Attuned to the latest developments, our large team of experts continually tests innovative ideas and develops ground breaking products for the solar industry and many other industries as well.

You can also enjoy the benefits of HellermannTyton's extensive supply chain, which gives you the freedom to choose your preferred routes of supply. You can find our products at all leading electrical wholesalers or you can purchase directly. No matter which channel you choose: HellermannTyton offers you value that pays off immediately.

Our extensive network of branch offices and distribution partners around the world ensures flexible, reliable and fast service as well as delivery.

### Cable ties and fastening systems



Simply clip the **EdgeClip EC4A-W** to the edge of the module and bundle the solar cables with the pre-assembled UV weathering resistant ties.



The ideal solution for curved module edges: the **EdgeClip EC5B** series. The pre-assembled cable ties can be connected easily, thereby permitting cable bundles to rotate 90°.



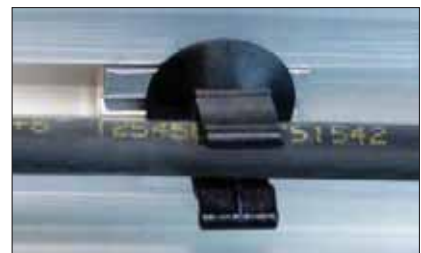
The **EdgeClip EC39** is simply attached to the module edge. It routes up to 4 solar cables with a nominal cross-section of 4 mm<sup>2</sup> along the edge of the module. Cables can be removed easily from the retaining clip.



T-nuts in supporting frames are perfect fastening points for the **retaining clip combination ICD5x10 and FT6LGSTUD5 with fir tree mount** allowing routing of 2 PV lines simultaneously.



Secure fixing and flexible handling: the **T50RFT8 retaining clip with fir tree mount** can be easily pressed into the M8 hole of a T-nut to route cable bundles in any direction.



With its omega-shaped holder, the **CTC retaining clip** pressed into the T-nut provides a secure fixing for a single cable, which can be removed at any time.



## Cable ties and fastening systems



The weather and UV-resistant **cable ties** of the **T Series** guarantee easy and secure assembly of cables and conduits to mounting bases.



Our **SolidTack mounting base** with high performance adhesive is ideally suited for fixing onto mounting rails of thin-film modules.

For extreme applications in very hot and dry climate zones – for instance in concentrator systems for photovoltaic facilities (CPV) or solar thermal energy conversion systems (CSP) in the desert – we offer **MBT stainless steel ties** with a patented, non-releasable locking mechanism.



## Heat-shrink products

The thin wall **TREDUX heatshrink tubing** with a shrink ratio of 3:1 ensures reliable electrical insulation and mechanical protection of cables and conduits in power inverters.



The heat-shrinkable **Helashrink moulded shapes** with an interior adhesive allow for very precise fitting, extremely robust connections and excellent corrosion protection at branches in string cabling.



The medium wall, 4:1 **heatshrink tubing MA47** with thermoplastic adhesive lining provides reliable protection of cables in roof breakthroughs and PV connection cables against mechanical strain and the effects of weathering and the environment.



## Our product range



### Cable protection



Thanks to its flexible profile, the **Helawrap cable protection system** can be quickly and easily installed on pre-mounted cables – as a time-saving solution for bundling, protecting and fastening cables and conduits like those in central power inverters.



**HelaGuard HG-HI protective conduits** made of polyamide 12 for dynamic applications can be mounted with a wide range of fittings. They are especially suitable for protecting engine cabling on solar tracking systems.



The close-fitting profile of **Flexiform edge protection grommet strip** provides clean and mechanically safe protection of cables and lines. For extreme demands, we also offer a UV-stable material design in PTFE.




The type T1-E **wiring ducts** with narrow but stable fingers are used in wiring cabinets, such as in central power inverters.





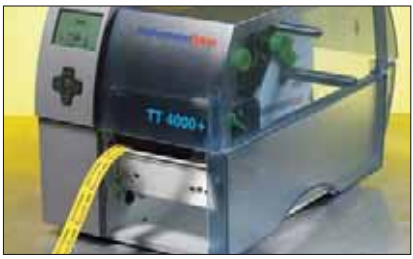
Our product range



Identification systems 



Our high performance, UV-resistant **adhesive labels** – applied on the cable or as a cable flag – are perfect for the identification of photovoltaic cables and solar panels in open space plants.



TIPTAG identification tags, adhesive labels and heatshrink tubing are easily printed with the reliability of **thermal transfer printing using the TT 4000\***.

**TIPTAG identification tags** were developed especially for constant exposure to harsh weather conditions and are very well suited for marking string cabling.



**M-BOSS stainless steel markers** are durable and clearly readable even under extreme conditions. HellermannTyton also offers embossing services according to individual specifications.



You expect the highest possible standards.  
We offer you certified quality.

For your assurance – and the assurance of your customers – we continuously test and certify our products to the most recent international and local standards. Your insurance that you are always working at the highest technical level.



Are you interested in more information or would you like to discuss a specific solution? We are happy to assist you with all of our experience and almost unlimited technical possibilities.

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Image: SCHOTT AG

We are there where you need us.

Our extensive network of personnel ensures that we are there for you worldwide. You can rely on us for speedy solutions, quick response times and complete reliability when it comes to sales and service.

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