

# Network Connectivity



Achieve high density with reliable end-to-end connectivity



# How to achieve high density with reliable end-to-end connectivity



Great news for installers! When the entire solution comes from the same supplier, you can rely on 100 % integration.

A data centre is a significant investment that needs to be balanced with current and future needs, as well as with cost efficiency and minimized energy consumption. An optimised, thorough analysis of the requirements in terms of layout, density and capacity is vital. Schneider Electric offers all the knowledge and products needed for presenting a complete end-to end solution, with accurate, easily maintained and future-proof operation as the result. A fact that is beneficial for every player involved.



As every installer, you know the pleasure of working with top-quality equipment, so that your effort can be put into reconfiguring and expanding the installation, rather than troubleshooting and repairing. By focusing on a comprehensive, fully integrable product range, we can strengthen our research and development – in this way ensuring the latest technical standards. This matches our goal throughout our 170-year history: to provide the most relevant, reliable and high-performing solutions on the market.

Our data centre solutions are complete, covering products from port to enclosure, to room to building. We offer end-to-end integration with safe and seamless network connectivity. Or in other words – outstanding performance and efficiency in every stage.



# Reap the benefits of high density

# 2000

connectors per m<sup>2</sup>  
of floor space

- Most cost-efficient use of the facility
- Major savings on installation time
- Superior reliability and performance
- Future-proof investment

# The keystones for maximising ROI and performance

The Schneider Electric High Density offer for data centres includes products for patching areas and server areas, along with an extensive cable support range. Together these form an infrastructure solution that brings out full-scale effect of the space, with continuously high performance and more money saved as the result.

## > HD patching area

A network set-up never gets better than the way it was planned from the start. This is why the Actassi system includes everything from enclosures and patch panels, to cables and connectors. All our systems and products are easily integrated to preserve maximum accessibility.



## > HD server area

The data traffic worldwide is constantly increasing, which really puts the installation to the test. Our High Density solution for data centres offers exceptional qualities for energy efficiency – cooling equipment concentrated to critical areas saves space and effort, making sure the server area can handle the requirements of today, tomorrow and the future to come.



## High Density means:

Energy efficiency thanks to concentrated cooling.  
Reduced need of costly space.

## > Catalogue

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# HD patching area

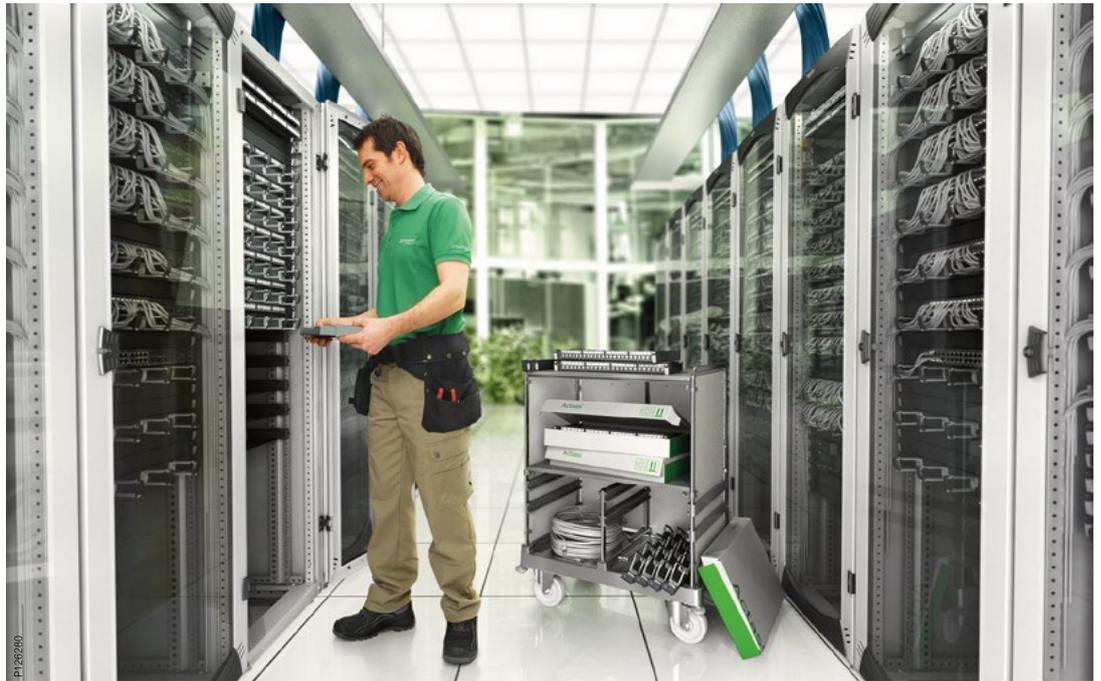
# Faster installation all the way, from connectors to panels

When working with complex systems and advanced technical solutions, any installer appreciates top quality and best performance in every detail. Schneider Electric's enclosures, connectors, cables and panels speed up each task. In other words, high density could not be achieved in any faster way.



## Swift integration

Effective installation personified. By constructing a complete system, we have made sure that there are no incompatible differences between the components.

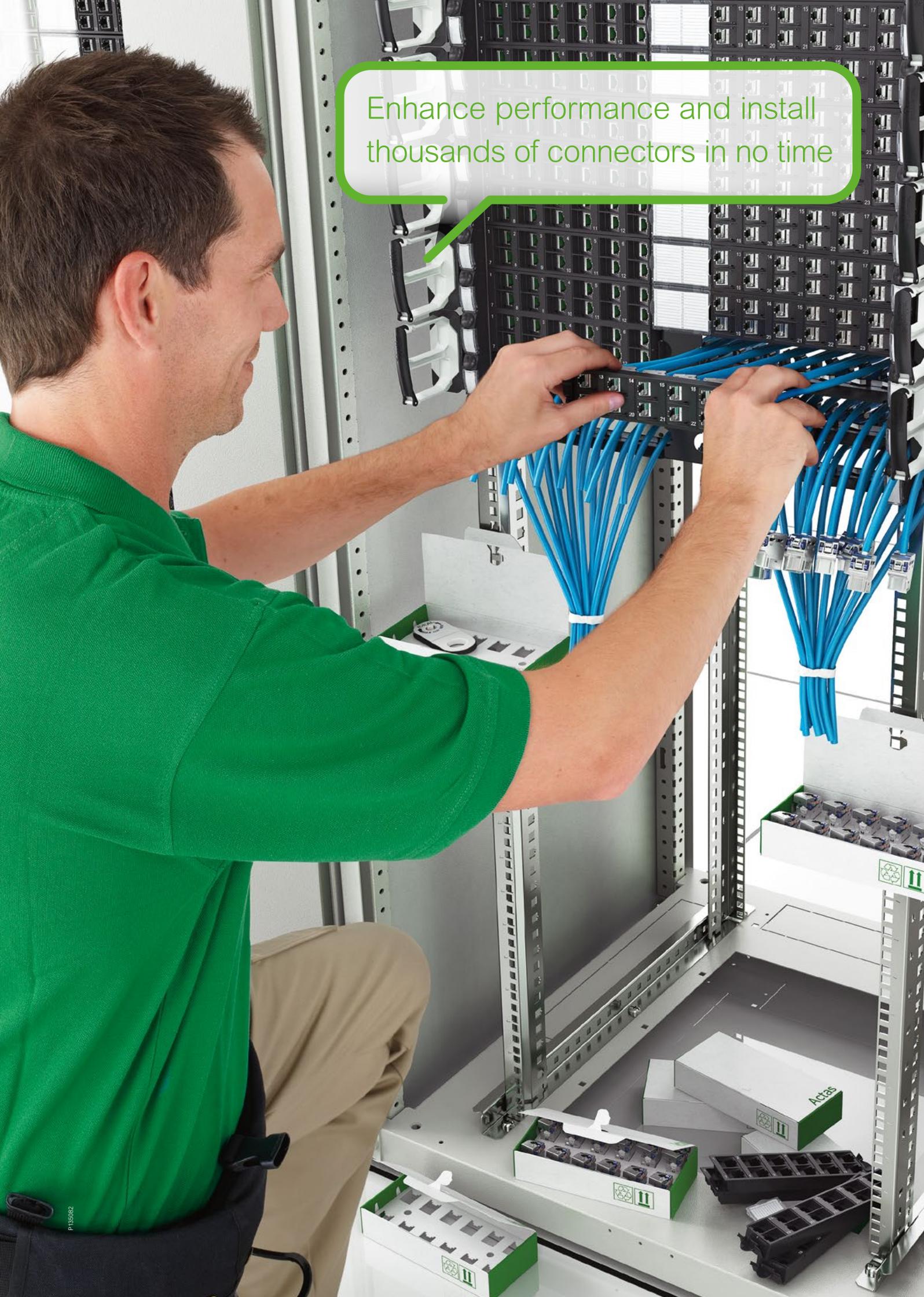


## Get time on your side

Now it is time to put an end to unidentified cords and cables, confusion and time-wasting unravelling of cable skeins. The installations are securely kept in the sturdy 19" VDA enclosure, allowing well-organised fixing and fastening of all components. In the ingenious 19" panel the connectors are placed at an angle and the cords are guided to the side. This unique design makes the installation nice and tidy while preventing

the bend radius from being exceeded. Fast and comfortable for the installer. To speed up work even more, there are a number of other clever components that will make it easier for you to quickly configure your installation – the Actassi S-One connector, the Actassi CL-MX cable and the Actassi Iris pre-terminated optical cabling system, to name a few. Find out more about all the advantages further on.

Enhance performance and install thousands of connectors in no time



The spacious work environment lets me work faster and get even more jobs done!



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## HD server area

# Ensure future-proof HD capacity

Now you can truly optimise the efficiency of your HD data centre. Since high-density zones can be deployed anywhere, extensions, new configuration and maintenance is more manageable than ever before. Benefit from significantly improved visibility and control of the entire solution – ideal for very dense enterprise and flexible colocation data centres.



## Let the air flow and put an end to inefficient cooling

The new Actassi overhead patching frame is the perfect solution for dealing with technical constraints in the data centre, such as overheating and space scarcity.

One of the major issues you have to deal with is the cooling. Large HD data centre solutions generate a considerable amount of heat that may cause costly unplanned downtime, if not taken care of. The InfraStruXure HD provides two ways of supplying effective cooling: The InfraStruXure HD overlay, which allows you to

identify the critical areas in your data centre and manage them on the spot. Or the Entirely InfraStruXure HD, for a more comprehensive solution with system-wide visibility and still plenty of room to grow.

Either way, you can start by putting the basic HD framework in place and making the complete data centre solution flexible and ready for future changes. By being well prepared, it is easy to scale up to a higher density when needed.



Count on improved  
efficiency and higher ROI



Actassi enhances the network performance in data centres.

When looking at the complete, high density data centre solution, you know that the investment has and will continue to pay off. The system is ready to take on enormous amounts of data traffic while

offering great conditions for extensions and maintenance. Let's zoom in on the details that make the whole picture.

# The overall performance relies on the details



- Fibre optic solutions
- S-One connectors
- CL-MX cables
- Flat HD panels
- Overhead  
patching frame



# Actassi fibre optic solutions

Network Connectivity solutions are key in your data centre to answer your environment constraints. Indeed you have to deal space optimisation, MACs, high bandwidth requirements for your active and passive components, security, and CAPEX reduction. In that direction, from Standard Building to Data centre applications, Schneider Electric introduces complete Fibre Optic solutions to cover your needs at all levels.



Schneider Electric introduces complete Fibre Optic solutions to cover your needs at all levels.

## Data centre environment evolution and key trends are driving the market

Cloud Computing trends with a significant increase of Big Data volume for the next years

- High bandwidth requirements for computing and core networking applications is growing steadily towards from 10 G to 40 and 100 Gbits
- Higher reliability and security needs: in data centre system downtime cannot be accepted and has to be 100 % under control not to happen

Consolidation, automatization, virtualization of data centres

- Effective optimisation of data centre space

- Effective cable management: Slack management is very important as well as ease airflow to relieve congestion in pathways and spaces
- Capacity planning, Infrastructure management improvements
- Rapid moves, adds and changes (MACs) need to be facilitated

Externalisation with the increase of colocation data centres types

- CAPEX and OPEX reduction Energy

# Actassi seamless end-to-end network connectivity



Actassi is a global and scalable network connectivity infrastructure solution for buildings and data centres. It's easy to install, easy to operate and is certified by a third-party independent laboratory at the highest Cat 6A international standards.

## Actassi Standard offer



A complete range of RJ45 connectors, 19" panels and cables.

## Actassi Specific Data Centre offer



19" flat high-density panels and an innovative overhead patching frame.

## Actassi FL-C Pre-Term optic



Pre-terminated fibre optical offer including panels, cassettes and links.

## Actassi Iris



An optical cabling system with the highest port density on the market.

# Actassi fibre optic solutions for all your needs

## Actassi FL-C Pre-Term Optic



**Large buildings, medium & small data centres**

**From 5 to 100 racks  
10 G ready  
Ready to support future 40 G applications**

## Actassi Iris



**Large data centres**

**> 100 racks  
100 G ready**

<b>Data centre type</b>	Finance, IT, Enterprise Corporate, Colocation, Public sectors	Finance, Colocation sectors
<b>Performance</b>	OM3 / OM4	
<b>Density Fibre capacity</b>	Classic -> 96 fibres in 1U MTP -> 576 fibres in 1U	Classic-> 576 fibres in 4U MTP -> 576 fibres in 1U
<b>Connectivity type</b>	MTP - 12 or 24 fibres	
<b>Key features</b>	<ul style="list-style-type: none"> <li>• 19" panels and pre-connectorized cassettes / links</li> <li>• Bend insensitive fibre</li> <li>• C Polarity, not compatible with IRIS offer</li> <li>• Secured delivery time for projects</li> <li>• x3 faster compared to standard installation</li> <li>• Project mode</li> </ul>	<ul style="list-style-type: none"> <li>• Fibre system with Corning Technology partnership, high end drawer style integrated</li> <li>• Clearcurve fibre</li> <li>• Universal polarity, not compatible with FL-C offers</li> <li>• 25 % faster MAC's (reversible boots)</li> <li>• 35 % faster to install</li> <li>• Turnkey solutions energy efficiency, cooling, space optimisation</li> </ul>

# Actassi FL-C Pre-Term Optic



## Answering to your high density and high reliability needs

Actassi Pre-Term Optic is a new Schneider Electric solution for data centre and IT room applications, covering the following requirements:

### 100 %

100 % pre-assembled and pre-tested in factory.



Plug & play fibre optic solution.

#### High density and performance for data centre

- Up to 96 ports in 1U, Up to 576 fibres
- MTP connector: MPO technical evolution which guarantees better robustness
- OM3, OM4, Bend Insensitive, Indoor/outdoor,
- Fan out splitter protections
- 10 G ready. Ready to support future 40 G performances thanks to chosen polarity
- Fully compliant to following international standards

#### High security for your network

- Complete plug & play systems
- Pre-equipped cassette, panels, standard and cassette all type of links
- Expertise: Factory 100 % pre-assembled and 100 % pre-tested
- On demand length to adjust to end user needs

#### Time secured for installation on site

- Delivery secured
- x3 faster installation compared to standard optic offer: Save connection time on site, only deploy links and then reduce human intervention on site

#### Scalable and adaptable

- Pay as you grow.
- Make your data centre evolve according to your needs
- Extensions possible thanks to on demand links

#### Energy efficient thanks to "Green environment"

- Fibre use
- Reduce up to 90 % of waste on site



# Actassi Iris optical cabling system



Innovative drawer-style hardware for unbeatable connector access.

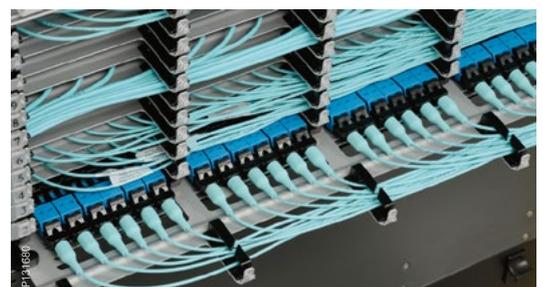
Exceptional port density: 576 fibres in a 4U panel.

Corning "Clear Curve" fibres enable tighter cable bends.

Low insertion loss allows flexible network design with multiple interconnections.

## The highest port density on the market

For a few years, we have had a thriving partnership with Corning Cable Systems, the global leader in fibre optics technology. A result of our successful cooperation is the Actassi Iris that allows easy upgrade to 100 Gb.



Actassi Iris is our premium fibre optic offer and another top-of-the-line component of our reliable and efficient HD Data Centre Solutions. With the highest port density on the market, the Actassi Iris facilitates installation by enabling faster moves, additions and configurations. Other features like pre-terminated components and innovative drawer-style hardware further improve performance, leading to complete end-to-end network connectivity.



Shuttered modules, operated with one hand – no dust caps needed.

# The features that make all the difference

Innovations like these enable faster installations, improved energy efficiency, more reliable operation and a minimum of maintenance. By speeding up each task, you get more jobs done.

# 3x

Three times faster installation with Actassi CL-MX.

## New!

- Patented metallic crossfiller for superior EMC and reduced installation time
- Insulated AWG 23 copper conductors
- Outer sheath in LSZH or LSFRZH

## 3x shielding

- 1 Inner cross
- 2 Outer shielding
- 3 Double outer shielding



## The Actassi CL-MX cable – 3 times improved performance

The Actassi CL-MX is a new, innovative and shielded Cat 6<sub>A</sub> cable with 3 times faster installation and a superior transfer impedance performance. The secret of the outstanding properties lies in the

patented metallic crossfiller that brings 3x shielding, improved EMC and less cutting operations. To put it short – increased efficiency in all stages.



The single-foil structure of the crossfiller acts like a triple screen protection with 360° shielding. Yet it is unbeatable when it comes to cutting down on cutting time.



The fire properties are documented by standardized methods according to IEC 60332-1, 60332-3C, 60754-1 and 60754-2.





50 % faster!

- One-piece design
- Smart bridle providing 360° earthing.
- U-shaped central cable entry.
- Protected IDC.

## The Actassi S-One connector – fast and trouble-free



**PoE+**  
The Actassi S-One connector is now certified and fully compliant with the PoE+ standards by Delta, allowing transport of up to 30 W in the data cable.



The Actassi One-piece RJ45 connector is tool-less to open and close. Advantages such as the colour coding, smart bridle, U-shaped cable entry and automatic 360° earthing allow you to connect up to 50 % faster. A cutting plier is the

only tool you need. Actassi S-One is designed by Schneider Electric, manufactured in our state-of-the-art factory in Denmark and fully compliant with the latest standard ISO/IEC 11801: 2011 Ed2.2.



## The Actassi flat high-density panel – advantages of working sideways



The panels are equipped with a Quick Fix function for a fast installation.

The new Actassi 19" flat panel with connectors placed at an angle gives a new dimension to high density – the panels can be mounted directly on top of each other, with no need of intermediate guiding panels. 24 ports, clearly marked at both front and rear, offer impressive capacity in a slim space. Just connect the cords from the front and assemble them to the sides through the vertical side ring. Other features are



the removable cable manager at the rear, the panel identification label and the hinged central label holder. Professional look and performance in every detail.



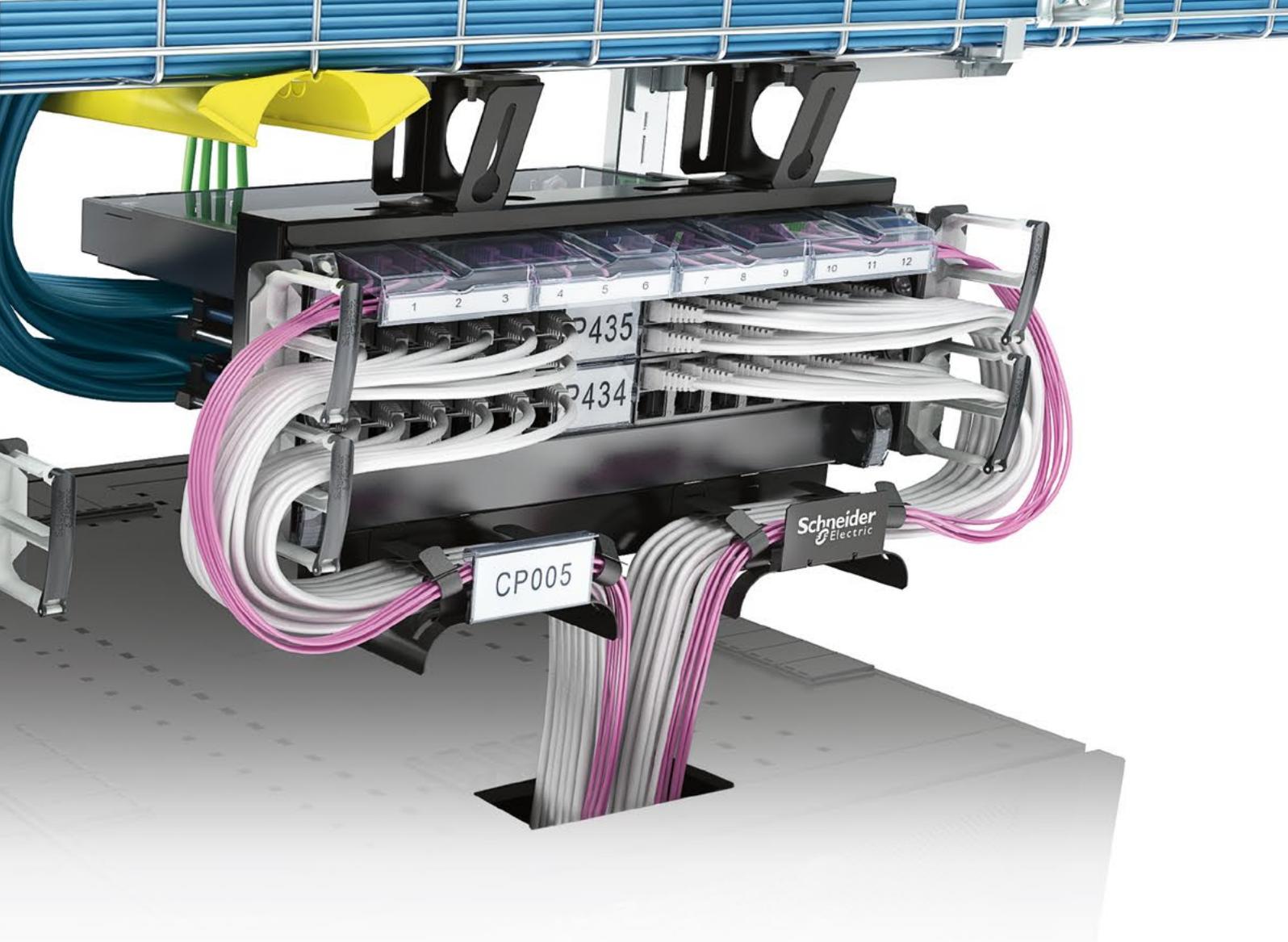
Connectors placed at an angle combined with front access simplifies installation work.



Large identification labels for easy readability from ground level.



The cable manager can be folded or removed. Hooks for cable ties for extra safety.



## The Actassi overhead patching frame – increasing cabling density

The Actassi 19" overhead patching frame allows you to use the empty space above the enclosure. Just mount the frame onto the tray, either vertically or in an angle. For mounting on mesh trays, use the special quick tray mounting device. Install patch panels and make the entire enclosure beneath available for server hosting. The patching frame now works as a consolidation point, enabling flexible cabling layout as well as convenient addition of new enclosures and servers.



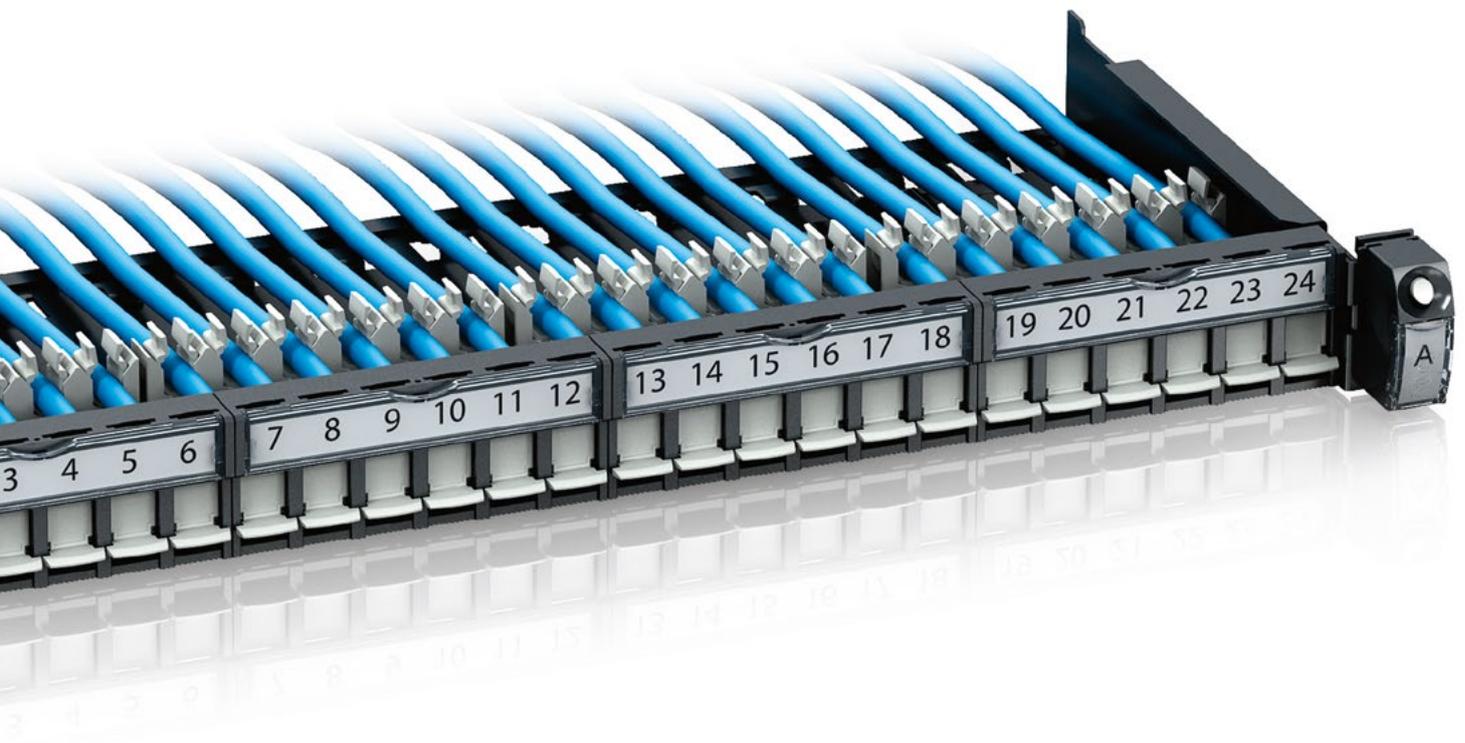
Robust cord managers for bend radius protection.



Large label for clear visibility from the ground.



For maximum convenience, the brackets enable vertical or angled mounting of the frame.



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# Actassi copper solution

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# Actassi S-One RJ45 connectors



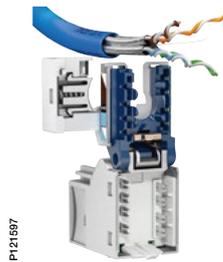
## Actassi S-One with one-piece design for faster and safer installations

Without any loose parts the Actassi S-One connector is more compact, easier to handle and up to 50 % faster to connect. The connector is delivered open, ready to connect. It has an automatic 360° cable earthing, a simple locking termination and a very smart locking function. The robust one-piece design is suitable for all applications, and in the Actassi S-One range you'll find both shielded and unshielded connectors of all categories.



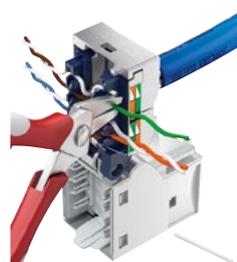
### PoE+

The Actassi S-One connector is now certified and fully compliant with the PoE+ standards by Delta, allowing transport of up to 30 W in the data cable.



Ready...

S-One is delivered open. Just insert the cable in the central U-shaped entry.



Steady...

Close the smart bridle – it will automatically lock the cable and provide 360° earthing.



Done.

Shut the connector. A “click” confirms that it's locked into its firm and reliable position.

# Actassi S-One benefits

## U-shaped cable entry with a smart bridle

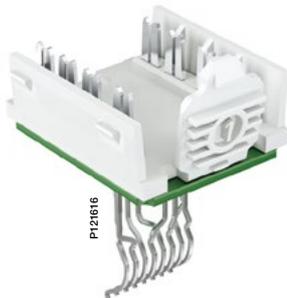
Despite being compact in size, the connector has enough space inside for your work. All functions are designed to ease your installation.

## Safe and automatic 360° earthing

Actassi S-One easily provides automatic earthing without any tools.

## Protected IDC

With Actassi S-One it's nearly impossible to damage cables or fingers, since the IDC is concealed in a cavity.



Insulated plastic IDC housing eliminates short-circuit between conductors and metal body.



Smart bridle with elastomer insert for cable locking reduces risk of damaging cables. U-shaped cable entry. Easy access for all cables.



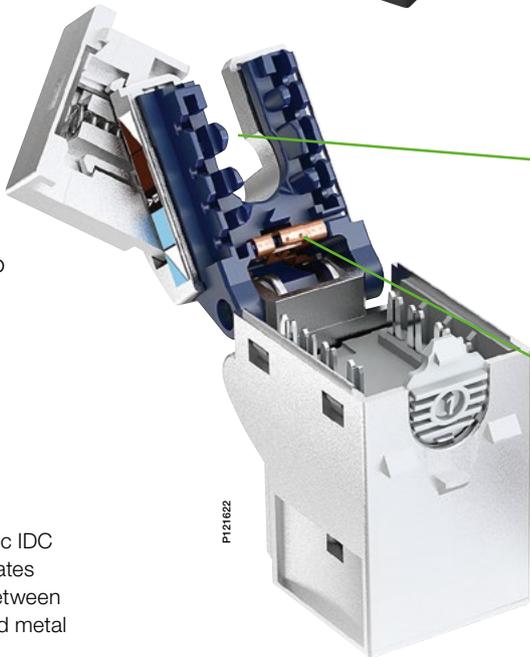
Central cable entry for optimised performance.



Automatic 360° earthing with spring-loaded locking and earthing bridle.

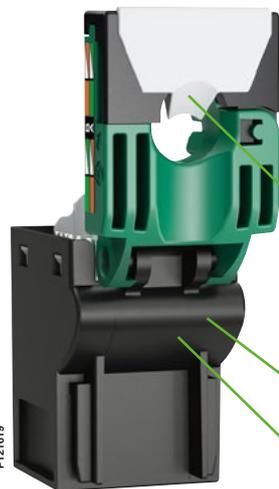


Integrated earth-drain contact provides double earthing.



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## Ergonomic design



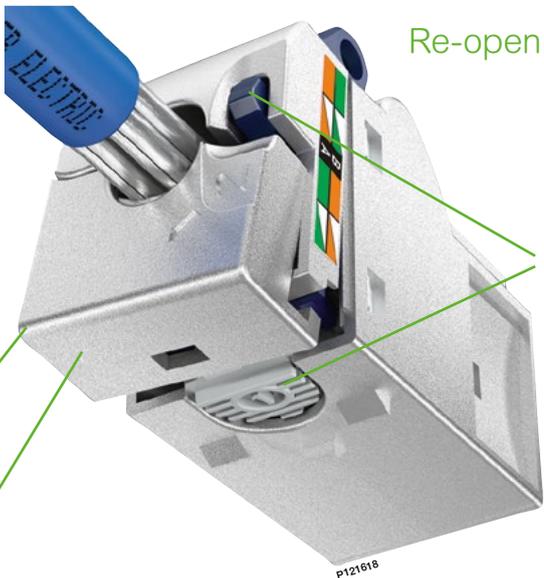
Installing shouldn't be painful! So in the Actassi S-One range it isn't.

Bridle with elastomer insert (unshielded) for convenient locking and soft touch.

Smooth design with rounded edges.

Touch-friendly materials.

## Re-open in two clicks



You can hear the Actassi S-One opening and closing.

Quick-release buttons for tool-less re-opening.

Reduced risk of damaging connections.

Re-close with a simple click-click.

P121618

P121619

# Actassi S-One is colour-coded

The Actassi S-One wire organizers are colour-coded to make performance identification safer and easier. Both shielded and unshielded connectors are coded according to the same system. Dark blue for Cat 6<sub>A</sub>, light blue for Cat 6 and green for Cat 5e.

## Practical eco-box

- Box of 12 connectors.
- Connectors delivered open, ready to connect.
- Cardboard package for easy recycling.

Integrated hook for the 19" rack.

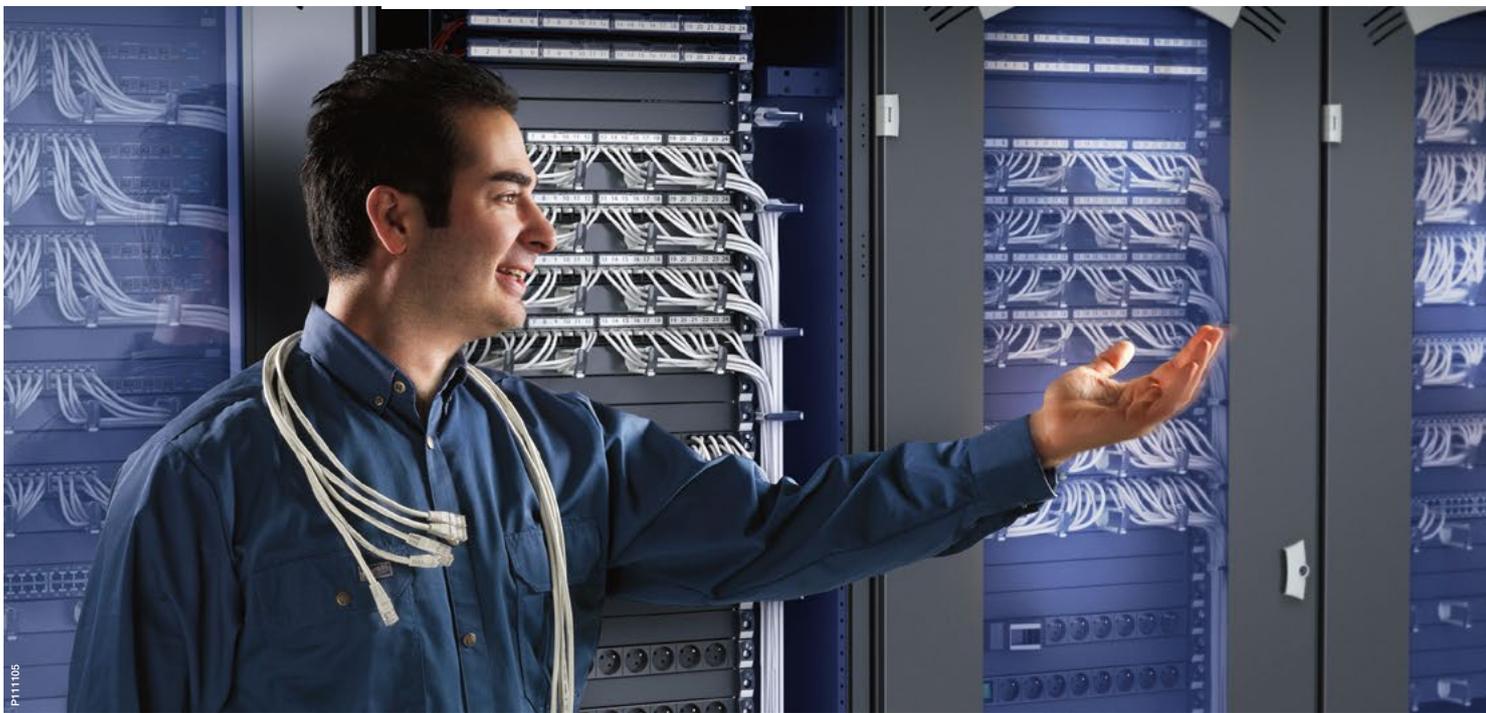


## Shielded

The shielded Actassi S-One connectors have two very time saving and safe features. It's the spring-loaded bridle for locking and automatic 360° earthing, and the integrated earth drain contact, which provides efficient double earthing.

## Unshielded

The unshielded Actassi S-One connectors have a smooth feel. The design promotes safety and comfort by its finely contoured shape, edges and elastomer insert.



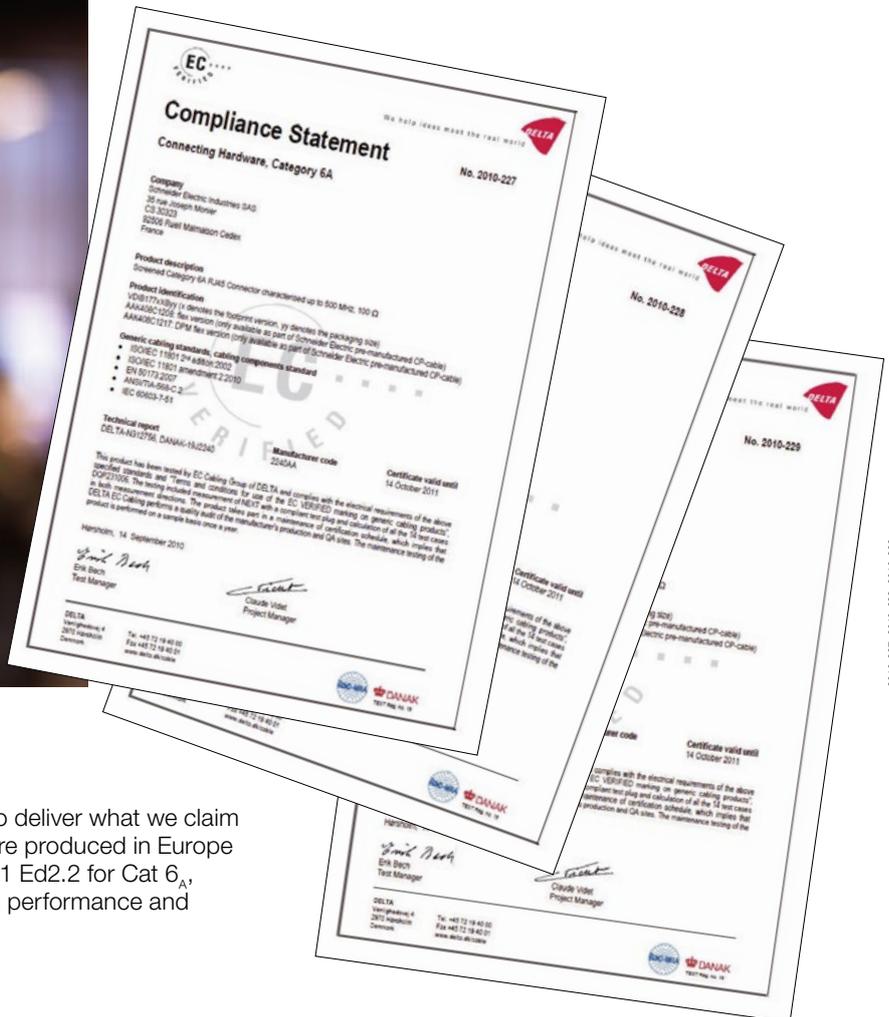
## Full compliance with ISO/IEC 11801: 2011 Ed2.2

To get your complete network installation classified you need to work with classified components. That's why you should choose our solutions. We provide seamless end-to-end connectivity through safe, speedy and reliable network installations. We are constantly adjusting and updating our portfolio, and at the same time making sure that they are fully compatible with older and future solutions.

Cat 6<sub>A</sub>

Cat 6

Cat 5e



2010-227, 2010-228, 2010-229

Every part in our Actassi range is certified to deliver what we claim they will. The Actassi S-One components are produced in Europe and fully compliant with ISO/IEC 11801: 2011 Ed2.2 for Cat 6<sub>A</sub>, so you can always count on an outstanding performance and reliability.

# S-One RJ45 connectors

## Actassi S-One RJ45 connectors

- Performance categories: Cat 6<sub>A</sub>, 6 and 5e, shielded and unshielded
- Material: shielded in zamak, unshielded in ABS plastic
- Size: height 28 mm, width 18 mm, depth 35 mm
- Applicable standards:
- ISO/IEC 11801: 2011 Ed2.2, class EA permanent link and channel
- IEC 60603-7-51 Cat 6<sub>A</sub> connecting hardware
- ANSI/TIA-568-C.2 Cat 6<sub>A</sub> connecting hardware
- One-piece design and U-shaped cable entry
- Tool-less IDC termination
- Earthing (shielded): metallic, 360° self-adjusting, plus drain wire contact
- Operational temperature range: -40°C to + 70°C.

### S-One C6<sub>A</sub> – Cat 6<sub>A</sub>

Description	Qty/pack	Reference
RJ45 Connector Cat 6 <sub>A</sub> Unshielded	1	<b>VDIB1772XU01</b>
	12	<b>VDIB1772XU12</b>

RJ45 Connector Cat 6 <sub>A</sub> Shielded	1	<b>VDIB1772XB01</b>
	12	<b>VDIB1772XB12</b>

### S-One C6 – Cat 6

Description	Qty/pack	Reference
RJ45 Connector Cat 6 Unshielded	1	<b>VDIB17726U01</b>
	12	<b>VDIB17726U12</b>

RJ45 Connector Cat 6 Shielded	1	<b>VDIB17726B01</b>
	12	<b>VDIB17726B12</b>

### S-One C5e – Cat 5e

Description	Qty/pack	Reference
RJ45 Connector Cat 5e Unshielded	1	<b>VDIB17725U01</b>
	12	<b>VDIB17725U12</b>

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P121216



P121212



P121215

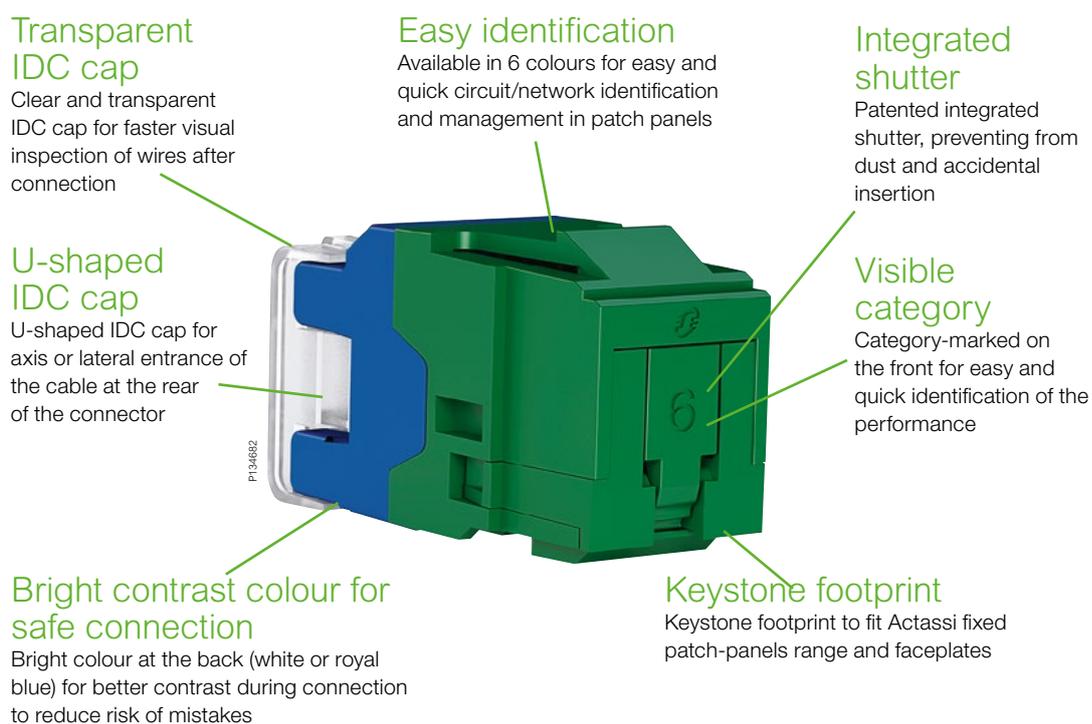


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# Actassi S-110 RJ45 connectors

Actassi S-110 is the high-quality range of RJ45 punch-down connectors with Keystone footprint. The connectors are unshielded, based on 110 termination technology and can be connected with Actassi Quick Termination Tool or Actassi punch-down tool. Actassi S-110 range provides full compliance to the latest international standards ISO/IEC 11801: 2011 Ed2.2 and ANSI/TIA-568-C.2 and is supported by Delta certification



# S-110 RJ45 connectors

## Actassi S-110 RJ45 connectors

- Performance categories: Cat 6<sub>A</sub>, Cat 6, Cat 5e unshielded
- Material: unshielded in ABS plastic
- Size: height 22 mm, width 16 mm, length 36 mm
- Applicable standards: ISO/IEC 11801: 2011 Ed2.2, ANSI/TIA-568-C.2
- Keystone footprint
- Punch-down IDC termination
- Patented shutter
- Available in various colours
- Operational temperature range: -40°C to 70°C
- Individual bag with cabling instructions
- Actassi S-110 Quick termination punch down tools compatible.

### S-110 C6 Cat 6

Description	Qty/pack	Reference
<b>Without shutters</b>		
Connector RJ45 Keystone Unshielded, white	1	<b>VDIB17766UWE</b>
Connector RJ45 Keystone Unshielded, black	1	<b>VDIB17766UBK</b>

<b>With shutters</b>		
Connector RJ45 Keystone Unshielded, white	1	<b>VDIB17746UWE</b>
Connector RJ45 Keystone Unshielded, black	1	<b>VDIB17746UBK</b>



### S-110 C5 Cat 5e

Description	Qty/pack	Reference
<b>Without shutters</b>		
Connector RJ45 Keystone Unshielded, white	1	<b>VDIB17765UWE</b>
Connector RJ45 Keystone Unshielded, black	1	<b>VDIB17765UBK</b>



### Standard tool (for S-110 tools for Cat 6<sub>A</sub>, Cat 6 and Cat 5e)

Description	Qty/pack	Reference
Punch down tool (1 blade ACTTRJ45PDTB included)	1	<b>ACTTRJ45PDT</b>
Blade for standard punch down tool ACTTRJ45PDT	1	<b>ACTTRJ45PDTB</b>



# Actassi copper cables

## Three ranges that cover all needs



### CL-C offer

Standard copper LAN cables for your day-to-day installations, based on U/UTP and F/UTP cables, from category 5 to category 6<sub>A</sub>. The CL-C cables are reliable and well-known, with good performance.



### CL-MNC offer

High-end copper LAN cables for performances from category 6 to category 6<sub>A</sub> 1000 MHz. Exceeding international standards by 3 dB minimum on NEXT & RL. Full Delta certification for components and permanent links.



### CL-MX offer

Exclusively designed LAN copper cables for category 6<sub>A</sub> with a patented single-foil metallic Xfiller, providing high performance and reliable shielded installations. Exceeding international standards by 3 dB minimum on NEXT & RL. Full Delta certification for components and permanent links.

## Actassi offer overview

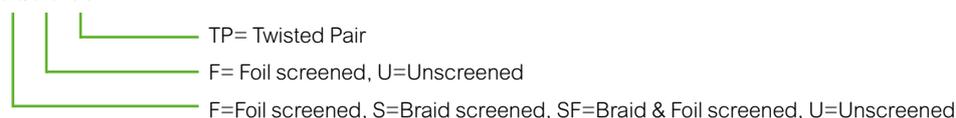
Type of shielding	Performances		
	Cat. 5	Cat. 6	Cat. 6 <sub>A</sub>
S/FTP			
F/FTP			CL-MX
U/FTP			CL-MNC
SF/UTP			
F/UTP		CL-C	CL-C CL-MNC
U/UTP	CL-C*	CL-C* CL-MNC	

\* Available with PVC or LSZH jacket material.

\*\* Available with LSZH or LSFRZH (LSZH + improved Fire Resistance) sheath material.

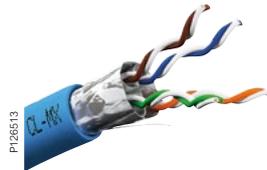
## Cable standardisation

X/X TP



# Actassi copper cables

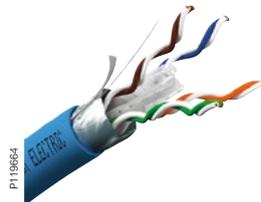
## Some important advantages



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### CL-MX patented metallic crossfiller

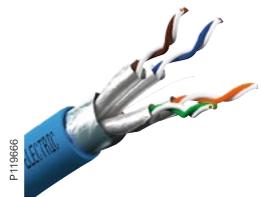
New and patented metallic crossfiller design of the CL-MX LAN copper cable, providing superior shielding, faster installations and increased efficiency.



P119664

### CL-MNC crossfiller with optimised design and micro-blades

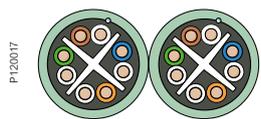
With an optimised design and specific micro-blades, you will have better performances in NEXT and ELFEXT, and a better resistance to the mechanical constraints.



P119666

### CL-C, CL-MNC, CL-MX conductivity

For the whole offer, the conducting side of the shield is turned outwards. Thus, there is no need to turn the shield inside out before applying the connector to have a good conductivity. You will gain time during installation, there will be no destruction of the shield and you will get very good shielding.



P120017

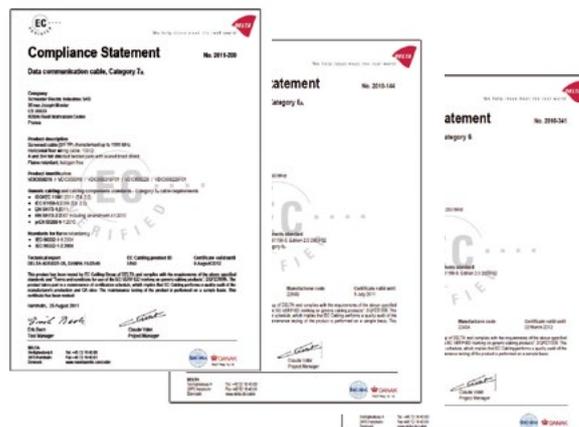
### CL-C, CL-MNC, CL-MX dual cables

In order to facilitate cable laying, the majority of our cables are available in dual version. Only one operation to install two cables.

## Certificates

All LAN cables from Category 6 are certified at a component level by the independent third-party laboratory Delta. Certificates are regularly updated to be compliant to the latest and highest international standards.

Cert 7A, Cert 6A, Cert 6



# Performances

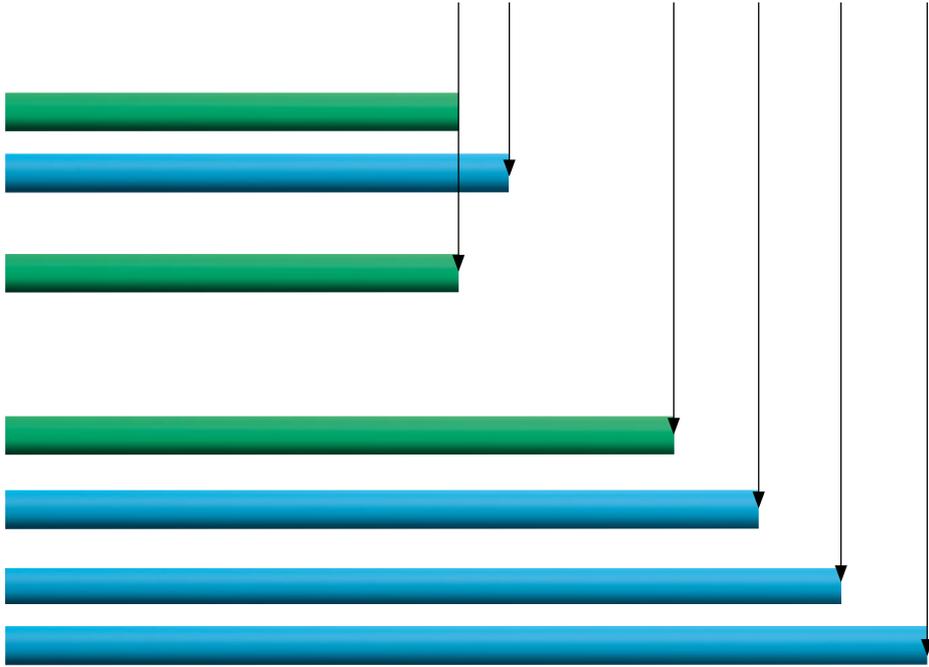
Frequency (MHz)	250			500			1000	
Attenuation (dB)*	33	33	33	45.3	45.3	45.3	46.0	61.9
NEXT (dB)*	39.3	42.3	59.3	34.8	34.8	54.8	82.7	60.4
ACR-F (dB)*	20	23	20	14	17	24	36.7	35.3
Propagation speed (%c)	66	66	78	70	70	82	82	78

### Cat 6

-  P110559 CL-C U/UTP
-  P120040 CL-MNC U/UTP
-  P120018 CL-C F/UTP

### Cat 6<sub>A</sub>

-  P120018 CL-C F/UTP
-  P93171 CL-MNC F/UTP
-  P119864 CL-MNC U/FTP
-  P139186 CL-MX F/FTP

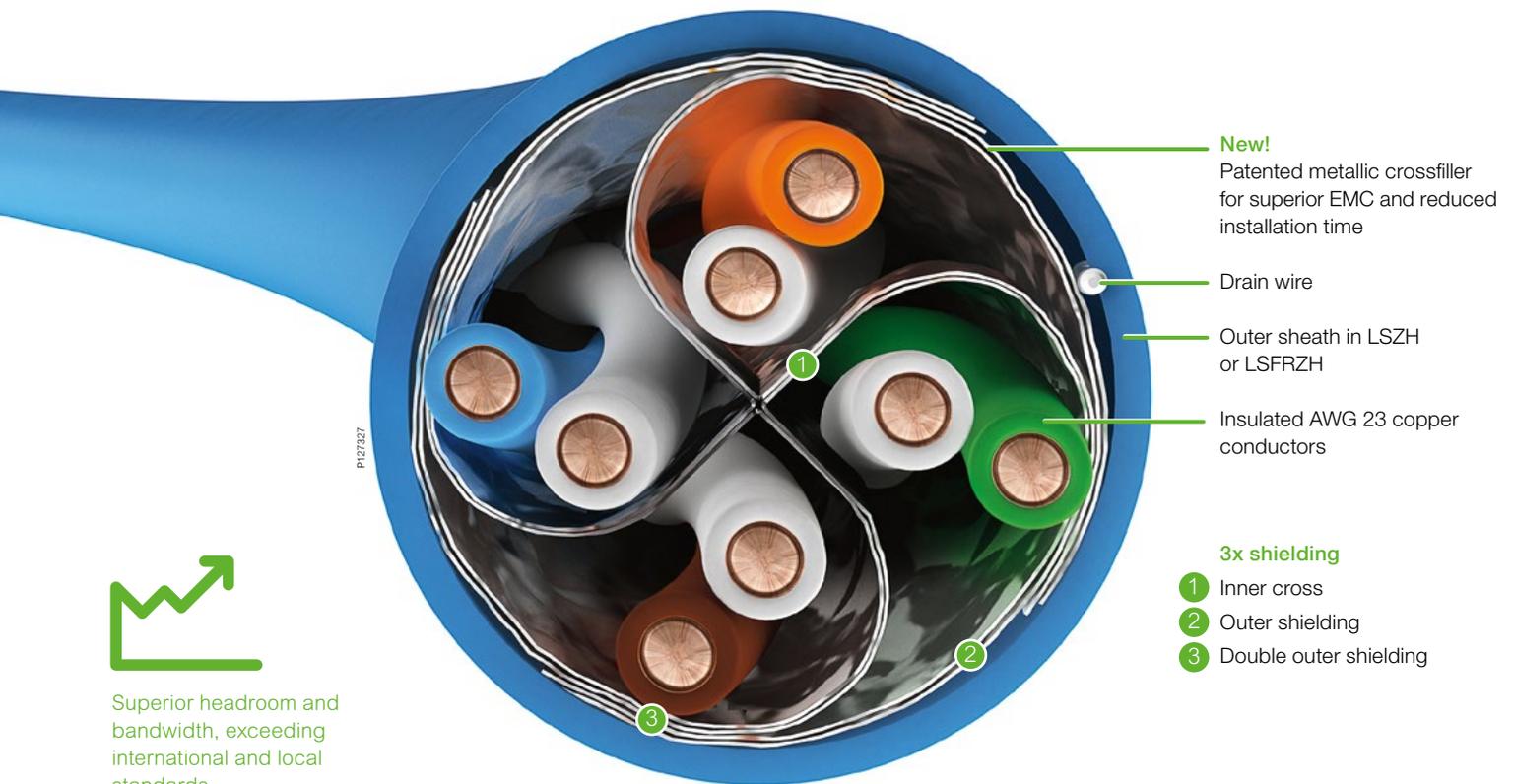


\* Nominal characteristics given for 100 meters at maximum frequencies:  
250 MHz for category 6, 500 MHz for category 6<sub>A</sub>,

# Actassi CL-MX cables

## 3 times improved performance with 1 new metallic crossfiller

The patented crossfiller brings 3x shielding and superior Electro Magnetic Compatibility (EMC). Thanks to the unique design, the EMC performance is among the best in the market with performances exceeding the standard requirements for shielded cables with braid (S/FTP). The metallic crossfiller ensures an improved transfer impedance to fit requirements of sensitive areas where data transmission is critical. Best of all, Actassi CL-MX cables require less operations to be installed.



Superior headroom and bandwidth, exceeding international and local standards.

### Designed for improved EMC

High-speed transmission protocols beyond 10 Gbit/s highlight ANEXT sensitivity and noise immunity as key performance factors for efficient, secure and robust installations. The single-foil structure of the metallic crossfiller acts like a triple screen protection around the copper twisted pairs. This specific design enhances EMC performances to reach grade 1 on the transfer impedance parameter, which is better than a shielded design with braid.





P127328

**Better link performance**

With Actassi CL-MX the installations are easy and safe. According to the international standards for shielded LAN cables, the use of CL-MX cables will require less installation operations:

- No separation distance to power cabling\*
- No ANEXT field testing

\*EN 50174-2 to be referred



The fire properties are documented by standardized methods according to IEC 60332-1, IEC 60332-3C, IEC 60754-1 and IEC 60754-2.

**Improved safety in case of fire**

Actassi CL-MX is available in two versions, the flame retardant LSZH and the fire retardant LSFRZH. Both are halogen-free. In case of fire, the result of using CL-MX is the reduction of the emissions of opaque smoke and acid gases. Thus, it helps reducing damages to equipment and allows people to escape from the building more easily.



P1128280

**Less cutting with Actassi CL-MX**

3x

Three times faster installation with Actassi CL-MX

P130057



Use the cable stripper tool and cut the outer sheath.

Cut the one single foil metallic crossfiller and remove it with a simple grip.

Your CL-MX is ready to connect.

Instead of separate wrapped-in foil pairs (like in traditional F/FTP or F/UTP cables), the Actassi CL-MX new crossfiller is wrapped in one single foil. This means less cutting and improved quality of the cable preparation. No need to pay attention to cutting the foils at exactly the same level, or to the length of the F/UTP plastic cross.

**Why traditional F/FTP cables are 3 times slower to install**

P130058



Prepare your tools.

Use the cable stripper tool and cut the outer sheath.

Cut the outer foil.

Remove the foil.

Separate all pairs and the drain wire.

Cut and remove the foil of the first pair.

Cut and remove the foil of the second pair.

Cut and remove the foil of the third pair.

Cut and remove the foil of the fourth pair.

# CL-MNC & CL-MX Copper LAN cables

P110665



## CL-MNC Category 6A Copper LAN cables

### CL-MNC Cat 6A U/FTP

#### Specifications

- 100 ohms, 550 MHz, AWG23, 4 pairs and 2x4 pairs with individual screen
- NVP = 80 %
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W

#### Performances

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2 and Draft EN 5028810-1 standards

NEXT	Nominal	Standard IEC
550 MHz	67dB	> 34.8 dB

#### Use

- Network cabling systems for category 6A voice & data applications. High data rates transmission: 10 Gigabit Ethernet, Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	57 kg/km	8.3 mm	LSZH	500 m	VDIC62X218

P120021



P126513



## CL-MX Category 6A Copper LAN cables

### CL-MX Cat 6A F/FTP

#### Specifications

- 100 ohms, 550 MHz, AWG23, 4 pairs and 2x4 pairs with patented single-foil metallic crossfiller design
- Superior EMC performances: Grade 1 Transfer Impedance
- Quick and simple twin removal actions for the sheath and the shield
- NVP = 82 %
- Fire retardant properties for LSFRZH version according to IEC 60332-3C, NFC32070 2.1, NFC32070 2.2
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W

#### Standards

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2 and Draft EN 50288-10-1 standards

NEXT	Nominal	Standard IEC
550 MHz	67 dB	> 34.8 dB

#### Use

- Network cabling systems for category 6A voice & data applications. High data rates transmission: 10 Gigabit Ethernet, Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	55 kg/km	7.8 mm	LSZH	500 m	VDIC68X218

P139186



# CL-C Copper LAN cables

## CL-C Category 5e Copper LAN cables

### CL-C Cat 5e U/UTP

#### Specifications

- 100 Ohms, 155 MHz, AWG24, 4 pairs or 2x4 twisted pairs without screen. Compatible with PoE standards (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W.

#### Performances

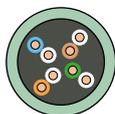
- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2 and TIA/EIA-568-C.2 standards.

NEXT	Nominal	Standard IEC
100 MHz	35.3 dB	≥ 35.3 dB

#### Use

- Network cabling systems for category 5 voice & data applications. Data rates transmission: Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	30 kg/km	4.9 mm	LSZH	305 m	<b>VDIC115118</b>
			PVC	305 m	<b>VDIC115118P</b>



P120013

## CL-C Category 6 Copper LAN cables

### CL-C Cat 6 U/UTP

#### Specifications

- 100 ohms, 250 MHz, AWG23, 4 pairs or 2x4 pairs without screen
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W.

#### Performances

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2, EN 50288-6-1 and TIA/EIA-568-C.2 standards.

NEXT	Nominal	Standard IEC
250 MHz	39.3 dB	≥ 39.3 dB

#### Use

- Network cabling systems for category 6 voice & data applications. Data rates transmission: Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	40 kg/km	6 mm	PVC	305 m	<b>VDIC116118P</b>

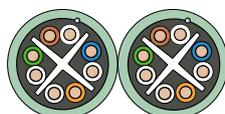
2x4 pair cable	87.5 kg/km	6.15x13.25 mm	LSZH	500 m	<b>VDIC116228</b>
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P119658



P110559



P120017



P119667

### CL-C Cat 6 F/UTP

#### Specifications

- 100 ohms, 250 MHz, AWG24, 4 pairs with overall screen. Cross filler to organize the pairs.
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W.

#### Performances

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2 and EN 50288-5-1 standards.

NEXT	Nominal	Standard IEC
250 MHz	39.3 dB	> 39.3 dB

#### Use

- Network cabling systems for category 6 voice & data applications. Data rates transmission: Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	48.8 kg/km	7.1 mm	LSZH	500 m	<b>VDIC136218</b>



P120018

# CL-C Copper LAN cables

P1194667



P120018



## CL-C Category 6<sub>A</sub> Copper LAN cables

### CL-C Cat 6<sub>A</sub> F/UTP

#### Specifications

- 100 ohms, 500 MHz, AWG24, 4 pairs with overall screen
- Cross filler to organize the pairs
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W.

#### Performances

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2 and Draft EN 50288-10-1 standards.

NEXT	Nominal	Standard IEC
500 MHz	34.8 dB	> 34.8 dB

#### Use

- Network cabling systems for category 6<sub>A</sub> voice & data applications. High data rates transmission: 10 Gigabit Ethernet, Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	50.6 kg/km	7.5 mm	LSZH	500 m	<b>VDIC13X218</b>

# CL-MNC Copper LAN cables

P119660



P120040



P135098



P136057



## CL-MNC Category 6 Copper LAN cables

### CL-MNC Cat 6 U/UTP

#### Specifications

- 100 ohms, 300 MHz, AWG23, 4 pairs without screen. Cross filler to organize the pairs
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W.

#### Performances

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2, EN 50288-6-1 and TIA/EIA-568-C.2 standards.

NEXT	Nominal	Standard IEC
300 MHz	44 dB	> 39.3 dB

#### Use

- Network cabling systems for category 6 voice & data applications. Data rates transmission: Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	40 kg/km	6 mm	LSZH	500 m	<b>VDIC616218</b>

## CL-MNC Category 6<sub>A</sub> Copper LAN cables

### CL-MNC Cat 6<sub>A</sub> U/UTP

#### Specifications

- 100 ohms, 550 MHz, AWG23, 4 pairs without screen. Crossfiller to organise the pairs. Specific notched sheath
- NVP = 65 %
- Compatible with PoE (Power over Ethernet) and PoEP (Power over Ethernet Plus) which allow to supply equipments (IP phone, camera, WIFI hotspot...) until 13 W or 25 W.

#### Performances

- Compliant to EN 50173-1, ISO/IEC 11801: 2011 Ed2.2, IEC 61156-5 Ed2 and Draft EN 50288-10-1 standard.

NEXT	Nominal	Standard IEC
550 MHz	37.2 dB	>34.8 db

#### Use

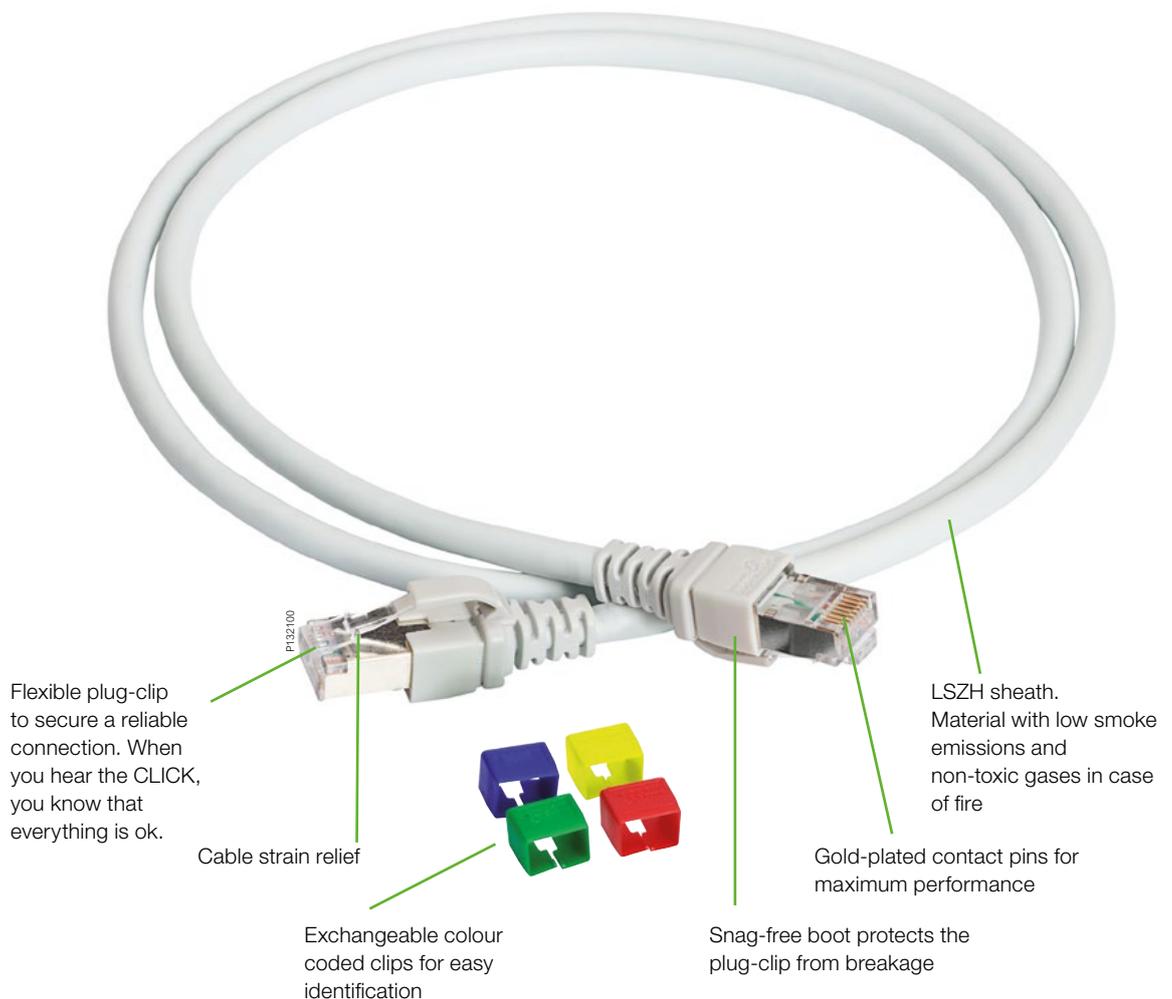
- Network cabling systems for category 6<sub>A</sub> voice & data applications. High data rates transmission: 10 Gigabit Ethernet, Gigabit Ethernet, 10/100 BaseT.

Type	Weight	Diameter	Sheath	Cond/Length	Ref. No
4 pair cable	76 kg/km	8.6 mm	LSZH	500 m	<b>VDIC61X218</b>

# Actassi copper patch cords

Actassi copper patch cords ensure a reliable transmission in data networks. They are available in several lengths, from Cat 5e to Cat 6<sub>A</sub> performances, covering both shielded and unshielded needs.

All patch cords are compliant with ISO/IEC 11801: 2011 Ed2.2. They are all Delta certified and also compliant to EN 50173ed.3. , EIA/TIA 568 - C.2, IEC 61935-2. Actassi copper patchcords provide safe plug & play with a high quality thanks to the performances, the LSZH sheath and the warranties.



# CL-MNC Copper patch cords

## CL-MNC Patchcords

### Application

Ensures and gives transmission of data networks.

### Performances

- High performance: from Cat 5e up to Cat 6<sub>A</sub> for copper systems, standard & system warranty
- Compliant with: ISO/IEC 11801: 2011 Ed 2.2
- Full latest standards Delta certified - EN 50173 Ed.3. , EIA/TIA 568 - C.2, IEC 61935-2.

### Specifications

- Low Smoke Zero Halogen (LSZH), 4 pairs, 100 ohms, pre-wired and tested in factory, with light grey colour design (RAL 7035)
- Connectors with grey overmoulding
- Snag-free connection to protect the plug-clip from breakage
- Network identification thanks to coloured clips
- Covers all needs for shielded and unshielded versions
- Individual packaging.

### Patch cord U/UTP category 5e

#### Specifications

- 155 MHz, outer sheath LSZH.

Type	Colour of sheath	Length (m)	Ref. No
4 pairs	Grey	0.5	VDIP181546005
		1	VDIP181546010
		2	VDIP181546020
		3	VDIP181546030
		5	VDIP181546050
		10	VDIP181546100



P131531

### Patch cord U/UTP category 6

#### Specifications

- 250 MHz, outer sheath LSZH.

Type	Colour of sheath	Length (m)	Ref. No
4 pairs	Grey	0.5	VDIP181646005
		1	VDIP181646010
		2	VDIP181646020
		3	VDIP181646030
		5	VDIP181646050
		10	VDIP181646100



P131531

### Patch cord F/UTP category 6

#### Specifications

- 250 MHz, outer sheath LSZH.

Type	Colour of sheath	Length (m)	Ref. No
4 pairs	Grey	0.5	VDIP184646005
		1	VDIP184646010
		2	VDIP184646020
		3	VDIP184646030
		5	VDIP184646050
		10	VDIP184646100



P131531

# CL-MNC Copper patch cords

## Patch cord U/UTP category 6<sub>A</sub>

### Specifications

- 550 MHz, outer sheath LSZH.

Type	Colour of sheath	Length (m)	Ref. No
4 pairs	Grey	1	VDIP181X46010
		2	VDIP181X46020
		3	VDIP181X46030
		5	VDIP181X46050



P131531

## Patch cord S/FTP category 6<sub>A</sub>

### Specifications

- 550 MHz, outer sheath LSZH.

Type	Colour of sheath	Length (m)	Ref. No
4 pairs	Grey	1	VDIP185X46010
		2	VDIP185X46020
		3	VDIP185X46030
		5	VDIP185X46050
		10	VDIP185X46100



P131531

## Coloured clips

Description	Packaging	Colour	Ref. No
Coloured clips	10	Blue	VDIP1811
		Yellow	VDIP1812
		Green	VDIP1813
		Red	VDIP1814



P131532

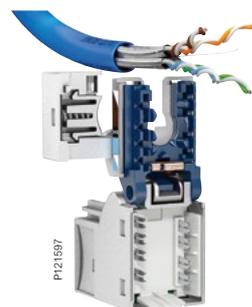
# Panel range with S-One and S-110

## Actassi data panels

The data panels contain a front configuration for 24 RJ45 connectors. All panels have the smart Quick Fix function. They are also available pre-equipped with connectors, shutters, label holders and a rear cable organizer. We try to make your life as easy as possible.



The data panel is available pre-equipped with the innovative S-One connectors.



### Sliding helps installation

Maintenance and extensions are smoothly performed with the help of the Quick Fix sliding function.

### Actassi S-One

The connectors are a one-piece design for very fast and reliable wiring. Actassi S-One exceeds component hardware certification for standards like ISO/IEC 11801: 2011 Ed2.2 for Cat 6<sub>A</sub>, ensuring optimised network performance.



**Cable management**  
Apart from the systems with colour codes, labels and numbers, the technical setup at the rear of the panel is designed to enhance order. Cables of various diameters are easily mounted and kept in place in specified slots.



**Rear position numbers**  
Keeping track of each RJ45 could sometimes be very hard. Actassi is changing all of that! The cable numbers at the rear correspond to those at the front, simplifying installation and maintenance from both sides of the rack.



**Automatic earthing**  
An automatic earthing for FTP/STP versions is integrated in the panel.



**Clear front marking**  
Each panel plate has an openable label holder. Print your own labels or use the included versions with pre-printed port numbers. Each shutter can also be colour coded for quick identification in both open and closed positions.

# Actassi flat high-density panels

The new Actassi 19" flat data panel with connectors placed at an angle gives a new dimension to high density – the panels can be mounted directly on top of each other, with no need of intermediate guiding panels. They are available empty without connectors or equipped with Cat 6<sub>A</sub> STP connectors.



**Quick Fix function**  
The panels are equipped with a Quick Fix function for a fast installation.



The flat data panel contain a configuration for 24 RJ45 connectors with a clear marking at both front and rear. The panels are easy to install thanks to the front access and the Quick Fix function. Use the vertical side rings for vertical management of the patch cords. Other features are the removable cable manager at the rear, the panel identification label and the hinged central label holder.



**Vertical side rings**  
Vertical side rings and connectors at an angle gives a true high density installation. The overhead patching frame saves space in the enclosure below.



**Connectors at an angle**  
Connectors placed at an angle combined with front access simplifies installation work.



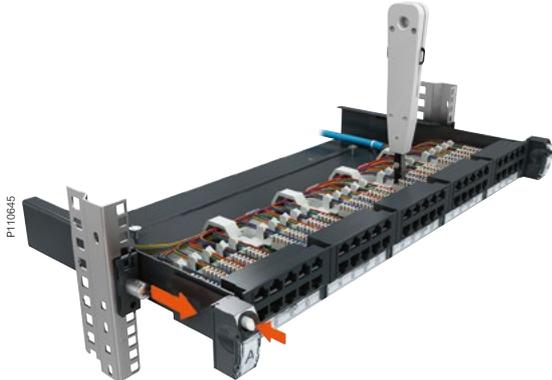
**Clear front marking**  
Large identification labels for easy readability from ground level.



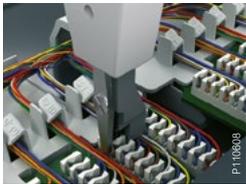
**Cable management**  
The cable manager can be folded or removed. Hooks for cable ties for extra safety.

# Actassi telecom panels

The smart and high capacity 19" telecom patch panel provides up to 50 connections. Very easy fixation of the panel thanks to the Quick Fix function with guiding fingers and pre-mounted screws. The label holders are easily opened without using any tool.



**Exceptional robustness**  
The sliding function does not deteriorate the stability. As a proof you can use the punch down tool for LSA contacts with the panel in a sliding-out position. You don't need to remove it from the rack first!



**Punch down tool**  
This is the punch down tool for LSA contacts, to be used for telecom cable connections.



**Cable identification**  
No need trying to figure out which cable goes where. The cable identification is very clear on the clever fixing guides.



**Safe and easy earthing**  
The panel has two earthing connection points for both shielded cables and for the rack, easily accessible at the rear.



**Clear marking**  
The telecom panel comes with pre-printed labels and openable label holders.

# Cable management accessories

The Actassi system also includes a range of smart accessories for improved cable management. The innovative patchcords guiding panel is equipped with four openable rings, managing up to 48 cords.



**Guiding panels for patch cords**  
The 1U panel manages 24 cords, and 2U panel 48 cords. Easily opened but still safe, since a clever device prevents cords from falling out. Also possible to pull out only one cord if needed.



**Side rings for rack 800x800**  
Rings for vertical management of up to 48 patch cords, attached to each side of the guiding panel (or any panel with Quick Fix). Available for 1U and 2U.



**Vertical rings for rack 600 x 600**  
For the 600 x 600 racks, use the smaller tie up devices to keep your installations in neat order.



**Brush panel**  
Brush guiding panel.

# 19-C Copper panels

## S-One range

P111249



### Empty sliding panel for S-One connectors 1U 24 ports

- Empty sliding 19" copper panel (without connectors)
- 1U height
- 24 RJ45 ports
- 1 Quick Fix function on both sides to allow a simple, quick fixing position and sliding feature
- equipped with 24 shutters in light grey, 4 label holders, and one cable manager at the rear
- Metal sheet: thickness 1.2 mm. Dark grey RAL 7016
- Plastic parts in PA66 GF20 or PA6
- Simple clicking connectors for mounting
- Automatic earthing with the pre-equipped bus bar for FTP/STP versions.

**Evolution version: pre-equipped with 24 light grey shutters, 4 label holders, 1 rear cable organizer**

Description	Reference
Empty panel 1U UTP 24 ports	<b>VDIG112241U</b>
Empty panel 1U FTP/STP 24 ports	<b>VDIG112241F</b>

P111249



### Equipped sliding panel with S-One connectors 1U 24 ports

- Equipped sliding 19" copper panel (with connectors, not mounted)
- 1U height
- 24 RJ45 ports
- 1 Quick Fix function on both sides to allow a simple, quick fixing position and sliding feature
- equipped with 24 shutters in light grey, 4 label holders, and one cable manager at the rear
- Metal sheet: thickness 1.2 mm. Dark grey RAL 7016
- Plastic parts in PA66 GF20 or PA6
- Simple clicking connectors for mounting
- Automatic earthing with the pre-equipped bus bar for STP versions.

**Evolution version: pre-equipped with 24 RJ45 S-One connectors (not mounted) and 24 light grey shutters, 4 label holders, 1 rear cable organizer**

Description	Reference
<b>Category 5e</b> Equipped panel 1U with 24 RJ45 Cat 5e UTP	<b>VDIG118241U50</b>
<b>Category 6</b> Equipped panel 1U with 24 RJ45 Cat 6 UTP	<b>VDIG118241U60</b>
Equipped panel 1U with 24 RJ45 Cat 6 STP	<b>VDIG118241B60</b>
<b>Category 6<sub>A</sub></b> Equipped panel 1U with 24 RJ45 Cat 6 <sub>A</sub> ST	<b>VDIG118241BX0</b>

# 19-C Copper panels

## S-110 range

P133075



### Empty fixed panel for S-110 connectors 1U 24 ports

(compatible with Cat 6 and Cat 5e not compatible for Cat 6<sub>A</sub>)

- Empty fixed 19" copper panel (without connectors)
- 1U height
- 24 RJ45 ports
- 1 Quick Fix function on both sides to allow a simple, quick fixing position
- Panels equipped with 4 label holders and a metal tray cable manager
- Metal sheet: thickness 1.2 mm. Dark grey RAL 7016
- Plastic parts in PA66 GF20 or PA6
- Simple clicking connectors for mounting.

Evolution version: pre-equipped with 4 label holders and a metal tray cable manager

Description	Reference
Empty panel 1U for S-110 connectors Keystone UTP 24 ports	<b>VDIG113241U</b>

P133076



### Equipped fixed panel with S-110 connectors, Cat 6 and Cat 5e UTP, 1U 24 ports,

- Equipped fixed 19" copper panel (with connectors, pre-mounted)
- 1U height
- 24 RJ45 ports
- 1 Quick Fix function on both sides to allow a simple, quick fixing position
- Panels equipped with 4 label holders and a metal tray cable manager
- Metal sheet: thickness 1.2 mm. Dark grey RAL 7016
- Plastic parts in PA66 GF20 or PA6
- Simple clicking connectors for mounting and dismounting.

Evolution version: pre-equipped with 24 RJ45 S-110 Keystone connectors (pre-mounted) and a metal tray cable manager

Description	Reference
<b>Category 5e</b> Equipped panel 1U with 24 RJ45 S-110 connectors Keystone Cat 5e UTP	<b>VDIG113241U50</b>
<b>Category 6</b> Equipped panel 1U with 24 RJ45 S-110 connectors Keystone Cat 6 UTP	<b>VDIG113241U60</b>

# 19-C Copper panels, high-density

## S-One range & Telecom range

### Empty flat panel for S-One connectors in angle, 1U 24 ports

- 1U height
- 24 RJ45 ports
- Allows high-density copper ports installation. Connectors are positioned in angle to guide the patch-cords to the vertical sides of the enclosure. The installation of copper ports is maximised as there is no need to consume rack units to mount horizontal guiding panels
- Recommended mounting with vertical side ring for vertical management of the patch-cords (reference VDIM189412)
- 1 Quick Fix function on both sides to allow a simple, quick fixing position
- Equipped with a label holder and a cable manager at the rear
- The cable manager can rotate and be removed to ease the accessibility
- Metal sheet: thickness 1.2 mm. Dark grey RAL 7016
- Plastic parts in PA66 GF20 and PC
- Simple clicking the connectors for mounting
- Automatic earthing with pre-equipped bus bar.

### Empty flat 19" copper panel for connectors in angle (delivered without connectors)

Description	Reference
Empty flat panel for connectors in angle 1U FTP/STP 24 ports	<b>VDIG328241B</b>

### Equipped flat panel with S-One connectors in angle, Cat 6<sub>A</sub> STP, 1U 24 ports

- 1U height
- 24 RJ45 ports
- Allows high-density copper ports installation. Connectors are positioned in angle to guide the patch-cords to the vertical sides of the enclosure. The installation of copper ports is maximised as there is no need to consume rack units to mount horizontal guiding panels
- Recommended mounting with vertical side ring for vertical management of the patch-cords (reference VDIM189412)
- 1 Quick Fix function on both sides to allow a simple, quick fixing position
- Equipped with a label holder and a cable manager at the rear
- The cable manager can rotate and be removed to ease the accessibility
- Metal sheet: thickness 1.2 mm. Dark grey RAL 7016
- Plastic parts in PA66 GF20 and PC
- Simple clicking the connectors for mounting
- Automatic earthing with pre-equipped bus bar.

### Equipped flat 19" copper panel with connectors in angle (connectors included, not mounted)

Description	Reference
Equipped flat panel with connectors in angle 1U with 24 RJ45 Cat 6 <sub>A</sub> STP	<b>VDIG328241BX0</b>

### Telecom panel 50 ports

- Telecom panel 50 ports in 2 rows
- 1U height
- The telecom cable wires are terminated in LSA punch down blocks on the PCB according to a clear numbering
- 1 Quick Fix function on both sides to allow a simple, quick fixing position and sliding feature
- With label holders
- Cable organizer at the rear with number identification.

Description	Reference
Telecom panel 50 ports	<b>VDIG141501</b>



# 19-C Cable management and Accessories



## Patch cord guiding panels

- Patch cord guiding panel
- 1U, 2U
- 1 Quick Fix function on both sides to allow a simple, quick fixing position
- 4 openable rings
- Patch cord holder integrated inside the ring for opened position.

Description	Reference
Patch cord guiding panel 1U with 4 openable rings	<b>VDIG188141</b>
Patch cord guiding panel 2U with 4 openable rings	<b>VDIG188142</b>

## Side rings for vertical management

- Rings for vertical management of patch cords, in horizontal and vertical position
- Openable
- For racks 800 x 800 mm and 600 x 600 mm
- Can be fixed on each side of any QuickFix system panel or guiding panel
- Large capacity up to 48 cords.



Description	Reference
Horizontal ring for vertical management of patch cords, 1U, for rack 800x800 mm	<b>VDIM189112</b>
Vertical ring for vertical management of patch cords, 2U, for rack 800x800 mm	<b>VDIM189412</b>
Ring for vertical management of patch cords, using self-grip strip, for rack 600x600 mm	<b>VDIM189111</b>



## Rack earthing kit

Description	Reference
Rack earthing kit, pack of 10 pcs	<b>VDIM48E011</b>



## RJ45 shutters

Description	Reference
Shutters, blue, pack of 24 pcs	<b>VDIM11U241</b>
Shutters, yellow, pack of 24 pcs	<b>VDIM11U242</b>
Shutters, green, pack of 24 pcs	<b>VDIM11U243</b>
Shutters, red, pack of 24 pcs	<b>VDIM11U244</b>
Shutters, grey, pack of 24 pcs	<b>VDIM11U246</b>

## Brush guiding panel

- Patch cord guiding panel
- 1U
- 1 Quick Fix function on both sides to allow a simple, quick fixing position.



Description	Reference
Patch cord brush guiding panel 1U	<b>VDIG188201</b>



## Cable organizer

Description	Reference
Cable organizer for fixation of up to 24 cables inside the panel	<b>VDIM11U001</b>

Cable organizer to be used together with fixed panels VDIG113241U, VDIG113241U50 and VDIG113241U60

## Tool

- Punch Down Tool for LSA contacts, to use for Telecom panel cable connection.



Description	Reference
Punch down tool LSA Contacts	<b>VDIB299001</b>

# Universal accessories and Power distribution

## Electrical power distribution rails PDU'S

### UK - 13 A/240 V~ with BS standard outlets

- Sockets set at 90° with child protection
- Aluminium profile silver - height 1U
- Material: fibreglass polyamide plastic with fire resistance to 850°C
- Equipped with power cord (3G 1.5 mm<sup>2</sup>) type H05 VVF, equipped with a mould right angle plug with earthing contact system.

Number of sockets	Width (mm)	Depth (mm)	Type	UTE
<b>19" Adapted</b>				
7 sockets outlets	19"	44	A	<b>NSYAPU19UK7</b>

NSYAPU19UK7



PBE0384



NSYAPUB

### Fixing brackets

- For vertical assembly of distribution rails
- Batch of 2 brackets, adaptable to all rails, delivered with fixings
- Material: treated steel, thickness 10/10 mm
- Fixing to the ends of the rail: reference **NSYAPUBV**
- Fixing with an orientation of 90°: reference **NSYAPUB**.

Fixing	Reference
End of the rail	<b>NSYAPUB</b>
Orientation of 90°	<b>NSYAPUBV</b>

PBE0385



NSYAPUBV

PBE01480



NSYCRTMR3UD

### 19" front plate for modular circuit-breakers

- Front plates for mounting 22 18 mm modules
- Fixing to the 19" rack
- Delivered with steel DIN rail
- Front panel made from sheet steel, 15/10 mm thick, RAL 7035 or RAL 7016 grey paint
- Front panel made from 3 mm anodised aluminium.

Number of U	References
	<b>RAL 7035 steel front panel</b>
3U	<b>NSYCRTM3UD</b>



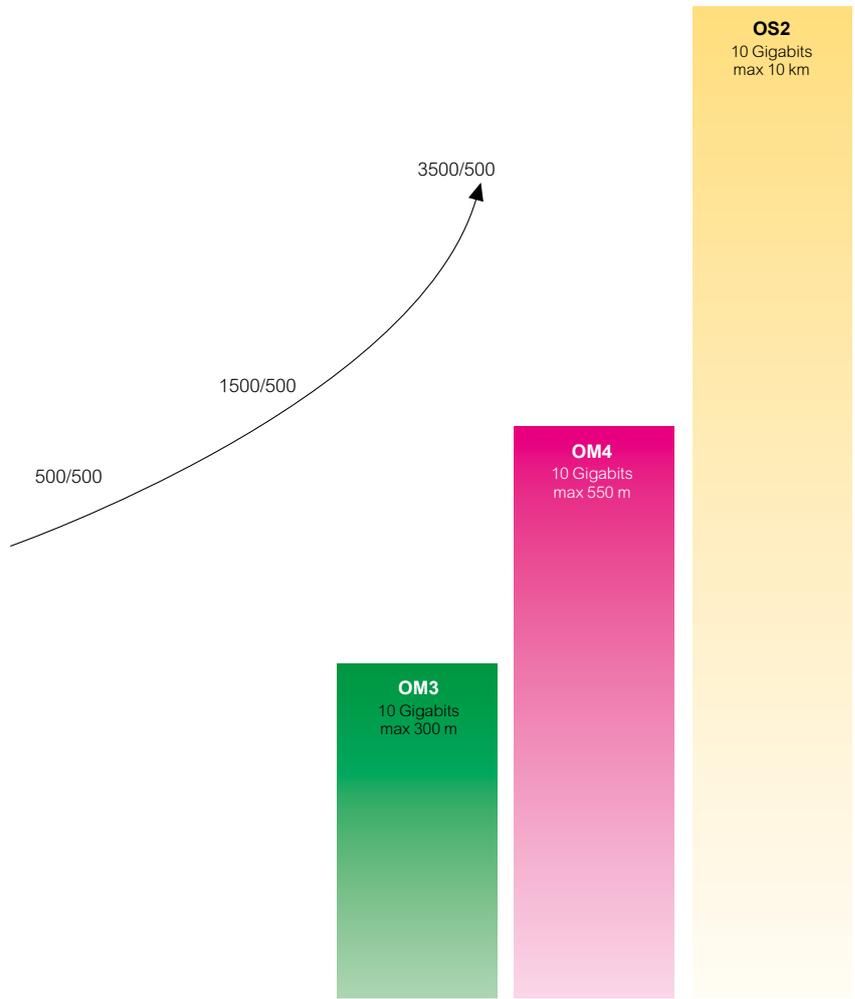
# Actassi fibre optic solution

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# Fibre optic performances



Supports all kinds of network applications



Applications	Wavelength	Multimode fibre		Singlemode fibre
		OM3 50/125 µm	OM4 50/125 µm	OS2 9/125 µm
<b>Overfilled Bandwidth (MHz.km)</b>	<b>OFL 850/1300 nm</b>	1500/500	3500/500	-
<b>100 Gbit/s *Draft IEEE 802.3ba</b>		100 m	125 m	10 km / 40 km
<b>40 Gbit/s *Draft IEEE 802.3ba</b>		100 m	125 m	10 km / 40 km
<b>10 Gbit/s (10GBASE-SR/SW)</b>	<b>VCSEL 850 nm</b>	300 m	550 m	-
<b>10 Gbit/s (10GBASE-LX4)</b>	<b>LASER 1300 nm</b>	300 m	300 m	-
<b>10 Gbit/s (10GBASE-LRM)</b>	<b>LASER WDM 1300 nm</b>	220 m	220 m	-
<b>10 Gbit/s (10GBASE-LR/LW)</b>	<b>LASER 1310 nm</b>	-	-	10 km
<b>10 Gbit/s (10GBASE-ER/EW)</b>	<b>LASER 1550 nm</b>	-	-	40 km
<b>1 Gbit/s (1000BASE-SX)</b>	<b>VCSEL 850 nm</b>	1000 m	1100 m	-
<b>1 Gbit/s (1000BASE-LX)</b>	<b>LASER 1300/1310 nm</b>	550 m	600 m	5 km
<b>100 Mbit/s (100BASE-SX)</b>	<b>VCSEL 850 nm</b>	300 m	300 m	-
<b>100 Mbit/s (100BASE-LX)</b>	<b>LASER 1300/1310 nm</b>	2000 m	2000 m	>20 km

# Actassi FL-C Pre-Term Optic

## Panel for cassette

- Empty sliding panel 1U, 19"
- Depth 257 mm
- Unit packaging
- Painting Epoxy RAL 9005 – Black color
- Provided with 2 cage nuts M6 compatible with perforations 8.5 x 8.5 mm et 9.5 x 9.5 mm.

## Overhead support for cassette

- Fixing under cable tray / mesh tray
- Passive optic network easy to relocate, bring flexibility in data centre
- Compliant with all cassettes VDILC\*
- Unit packaging
- Painting Epoxy RAL 9005 – Black color
- Provided with 2 fixation screws.

## Sealing plate

- Metallic face plate 1U
- Easy mounting on panels
- Obturation for cassette (1U)
- Unit packaging
- Painting Epoxy RAL 9005 – Black color
- Provided with 2 screws with unloosable screws.

## MTP adapters

- 1U support equipped with MTP adapters
- Use for connectors MTP 12 and 24 fibres
- Mounted on cassettes and overhead patch support for cassettes
- Each adapter is equipped with cap.

## MTP adapters cont.

- Color code with adapters
- OM3: aqua
- OM4: magenta
- Unit packaging
- Painting Epoxy RAL 9005 – Black color
- Provided with 2 fixation screws.

## Cleaning tools

- Optic connectors have to be clean before any use for connections in order to ensure the best optic performance.
- Cleaning tools mandatory for SC, LC ou MTP connectors
- Cleaning in 1 action, Clean all type of residual
- More than 500 cleaning use for 1 single cleaning tool
- Adaptation for adapters
- RoHS compliant
- Unit packaging.

## Demo kit

- Aluminium pack with flexible handled
- Pack equipped with:
  - 1 optic panel equipped 96 LCq / 4\*24 MTP
  - 1 cassette 6\*24 MTP pre-terminated 6\*24 MTP - 2 meters
  - 1 link 24 LC preterminated 1\*24 MTP - 2 metres
  - 1 tool MTP
- Dimensions: 550 x 430 x 195
- Unit packaging.

## Empty panels and accessories



Type	Ref. No
Empty panel 1U 19" for 4 cassettes or 8 half size cassettes	<b>VDILP3</b>
Sealing plate 1 slot 1U for VDILP3	<b>VDILA1</b>
Plate equipped with 6 adapters MTP OM3 for VDILP3	<b>VDILA33</b>
Plate equipped with 6 adapters MTP OM4 for VDILP3	<b>VDILA34</b>
Cleaning tool LC	<b>VDILA501</b>

# Actassi FL-C Pre-Term Optic

## Pre-connectorized optic cassette SC / LC to MTP Specification

- Pre-terminated optic cassettes enable architecture evolution according to your needs -> Pays as you grow
- Metallic cassettes are 100 % pre-equipped and pre-tested with optic connectors at factory site.
- Optic cassette 12
- Traceability per serial number
- Cassettes can be mounted in cassette panel VDILP3 (4 cassettes capacity)
- Color code with SC/LC/LCq adapters
- OM3: aqua
- OM4: magenta
- MTP at the rear with 12 or 24 ports
- Can be inserted with MTP architecture in C polarity
- Color code MTP adapters
- OM3: aqua
- OM4: magenta
- Optic Standards: ANSI/TIA-568-C.0-2-2012
- 10 G ready. Ready to support future 40 G applications
- Unit packaging
- Epoxy RAL 9005 – Black color
- Provided with 2 fixation screws

## Performances

- Optic Standards: ANSI/TIA-568-C.0-2-2012
- OM3, OM4.

### Cassette MTP preterminated LC or SC

	Connector			Ref. No (xxx: length in meters)
	Perf	Type	Nbre MTP	
	OM3	LC	12 1 x 12	<b>VDILC235C1C</b>
	OM4	LC	12 1 x 12	<b>VDILC245C1C</b>

P140774, P140777, P140776, P140775

# Actassi FL-C Pre-Term Optic

## Trunk MTPf / MTPf

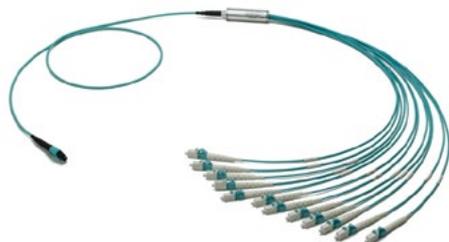


P140787

Perf	Connector		column length (m)	Ref. No			
	MTP	MTP					
OM3	1 x 12	1 x 12	3	VDILL034C4C0003			
			4	VDILL034C4C0004			
			5	VDILL034C4C0005			
			6	VDILL034C4C0006			
			7	VDILL034C4C0007			
			8	VDILL034C4C0008			
			10	VDILL034C4C0010			
			11	VDILL034C4C0011			
			12	VDILL034C4C0012			
			13	VDILL034C4C0013			
			14	VDILL034C4C0014			
				2 x 12	2 x 12	50	VDILL034D4D0050
			OM4	1 x 12	1 x 12	3	VDILL044C4C0003
						4	VDILL044C4C0004
5	VDILL044C4C0005						
6	VDILL044C4C0006						
7	VDILL044C4C0007						
8	VDILL044C4C0008						
10	VDILL044C4C0010						
11	VDILL044C4C0011						
12	VDILL044C4C0012						
	2 x 12	2 x 12				50	VDILL044D0050

## Fanout MTPm / LC or SC

P140789

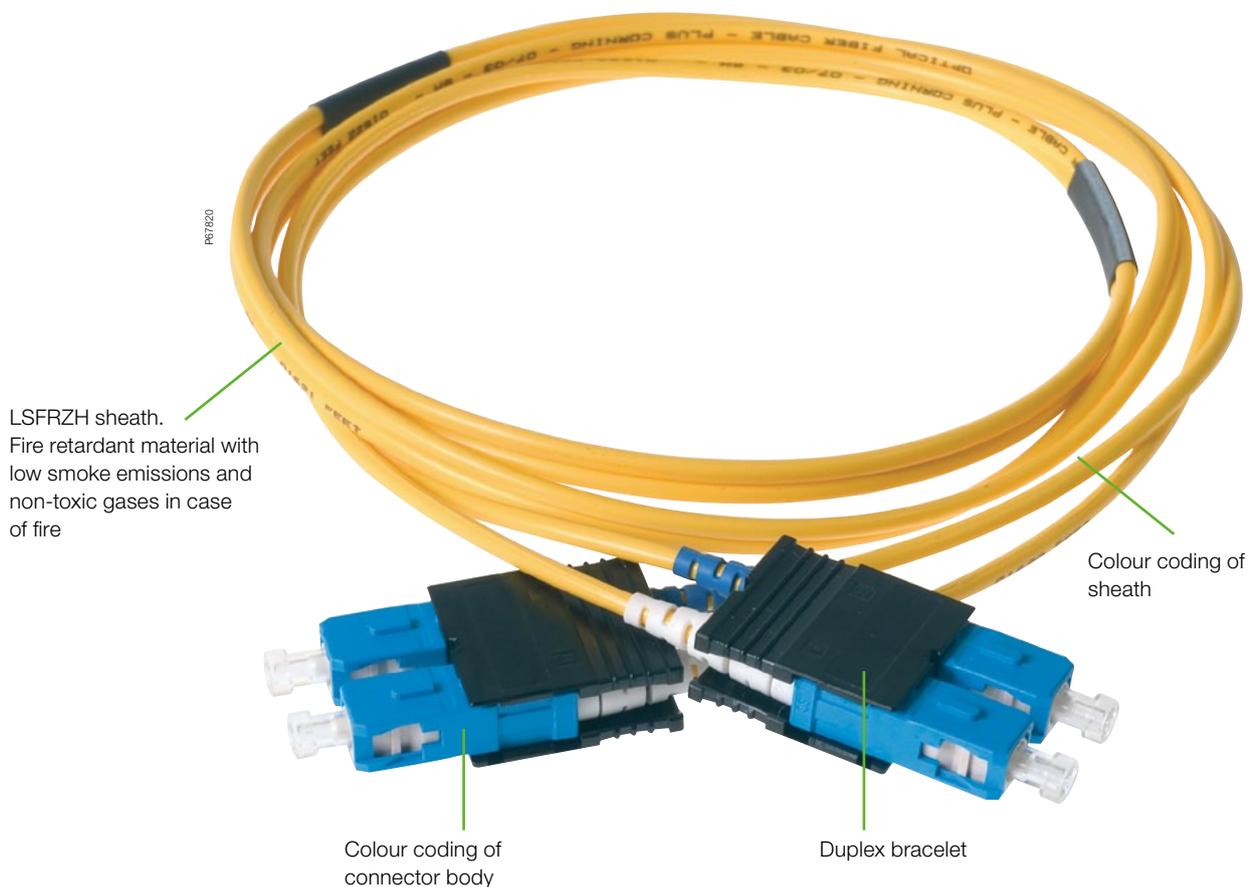


Perf	Connector					column length (m)	Ref. No
	Type	Nbre	MTP	Fibre			
OM3	LC	12	1 x 12	2 mm	2	VDILL035C1C2002	

# Actassi fibre optic patch cords

Actassi fibre optic patch cords ensure a reliable transmission in data networks. They are available with several types of connectors (SC, LC, ST), for multimode (OM3, OM4) performances, in different lengths to cover all installation needs.

All fibre optic patch cords are compliant with ISO/IEC 11801: 2011 Ed2.2 and provide safe plug & play with a high quality thanks to the performances, the LSFRZH sheath (LSZH with fire retardant properties) and the warranties.



# FL-C Fibre optic patch cords

## FL-C Fibre optic patch cords

### Specifications

- Optic patch cords suitable for patching within technical rooms and at workstation between passive and active equipments:
- Factory terminated
- 100 % optically tested
- Delivered with insertion loss report tests
- Zirconia ceramic material ferrules
- Available in OM3, OM4 performances
- Available with ST, SC and LC types of connectors
- 2 mm coloured sheath for a quick and easy identification of performances
- Low Smoke Zero Halogen (LSZH) sheath
- Flame retardant according to IEC 60332-1, EN 50265 2.1, NFC 32 070 2.1 (Category C2). Fire retardant according to IEC 60332-3 C, EN 50266, NFC 32 070 2.2 (Category C1).

### Performances

- LC connectors compliant with TIA/EIA 604-10A and IEC 61754-20 Ed. 2
- OM3 50/125 compliant with ITU G.651, IEC 60793-2-10 Type A1a.2 and ISO/IEC 11801: 2011 Ed2.2 OM3
- OM4 50/125 compliant with IEC 60793-2-10 Type A1a.3, ISO/IEC 11801: 2011 Ed2.2 OM4
- Cable mechanical characteristics tested according to IEC 60794-1.

### Fibre Optic Patch cords OM3 50/125

Type	Length	Ref. No
Optic Patch cord LCd/LCd LSZH	3 m	VDIP543553



P134782

### Fibre Optic Patch cords OM4 50/125

Type	Length	Ref. No
Optic Patch cord LCd/LCd LSZH	3 m	VDIP544553



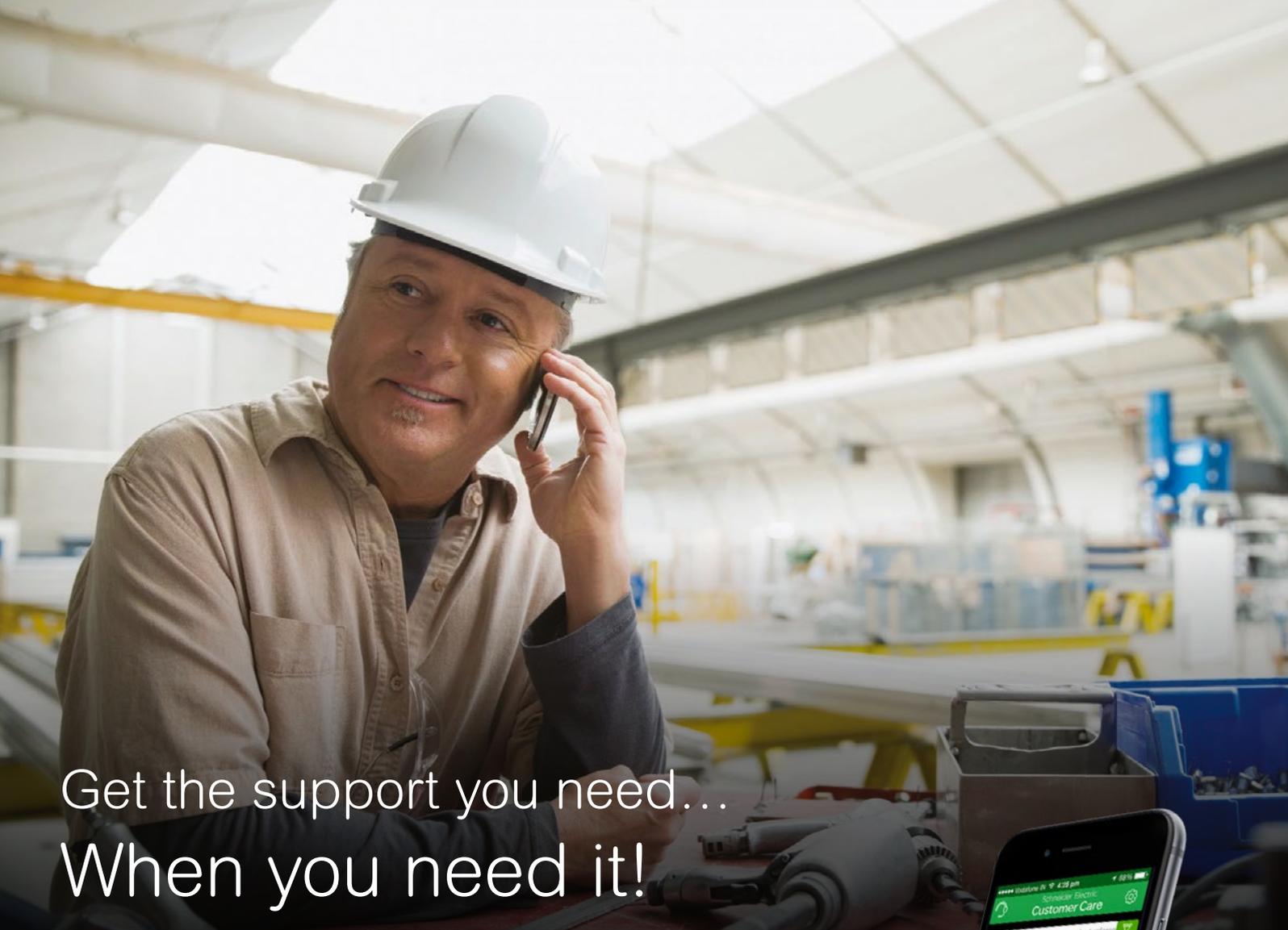
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