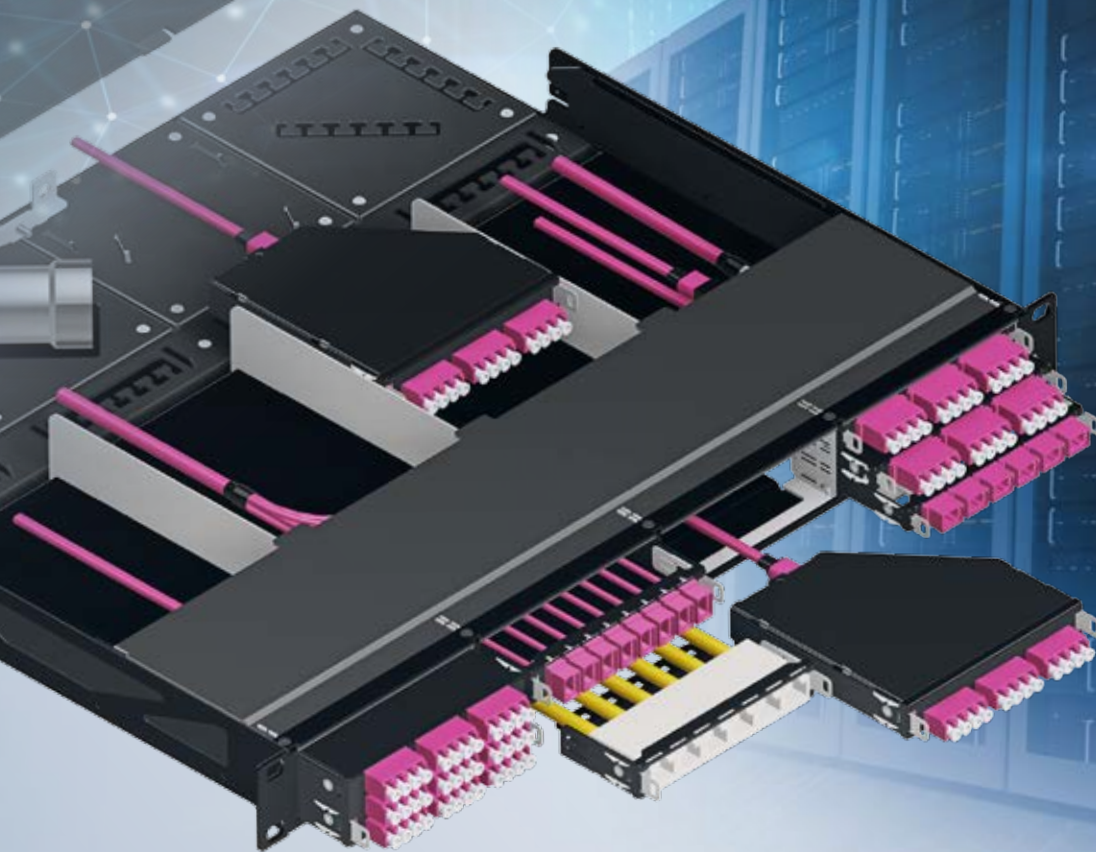


DClink – The real Plug&Play solution

Numerous possibilities, one system



The Quality Connection

LEONI

Our best solution for your application

DCLink – The real Plug&Play solution

Fully ready-made and tested, DCLink guarantees future-proofing for your data center or storage area network.

Our goal is to furnish you with a system that provides maximum safety, flexibility, packing density and functionality – and not only for today's applications.

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All necessary planning documentation available online:
www.leoni-data.com

Technical modifications, misprints and errors excepted.

Safety instructions

Cables are to be used for the designated applications only. Maintenance, repair and replacement of the cables and connectors may only be carried out by authorised and trained personnel.

General conditions of sale and delivery

Please refer to our current "General Terms of Sale and Delivery", which we will be pleased to supply upon request.

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The LEONI group

Concentrated competence in cables



LEONI is a leading supplier of cable systems and related services for the automotive industry and various other industrial sectors.

Our group of companies employs more than 82,000 people in 32 countries. Corporate vision, highest quality and innovative power have made us one of the leading cable manufacturers in Europe. LEONI not only develops and manufactures a portfolio of technically sophisticated products that extends from wire and optical fiber to cables, all-in-one cable systems and services, but also offers its customers a range of bespoke services. Moreover, the product portfolio comprises strands, standardised cables, hybrid cables, glass fiber as well as special cables, cable harnesses, wiring systems components and fully assembled systems for applications in various industrial markets.

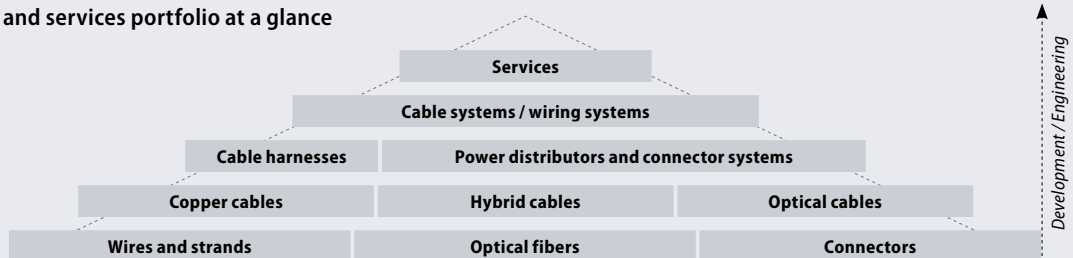
Your markets – our strength.

The markets and sectors LEONI supplies are as diverse as our product and service range. We focus our activities on customers in the sectors Automotive & Commercial Vehicles, Industrial Solutions, Electrical Appliances and Conductors & Copper Solutions.

In the Industrial Solutions market, we are one of Europe's leading providers. Acting as both a cable manufacturer and a dedicated solution provider, we work in fields as diverse as telecommunications systems, fiber-optic cable, data communications, manufacturing projects, solar and wind power, energy and infrastructure, building services, bespoke product and robotics solutions, healthcare, traffic systems and automation technologies. Our customers benefit worldwide from innovative as well as reliable and long-lasting products of high quality. LEONI – we create the best connection for your future.

For further information, visit www.leoni.com

Products and services portfolio at a glance



LEONI's core markets



Keeping you connected tomorrow

Business Unit Datacom

LEONI's Business Unit Datacom ensures first-class, highly-reliable data interior cabling with a focus on data centers. Numerous innovations and developments of today are already setting the standards of tomorrow.

Copper and fiber optic cabling combined with specifically adapted system technology create data networks that maximise the operational performance of our customers. By always keeping the benefit and value for our customers in mind, we create solutions that facilitate next-generation technology migrations.

As globalisation, urbanisation and networking continue to expand, the technical requirements for materials, manufacturing processes and logistics grow more demanding. Last but not least, project cost pressures are also increasing. Cost-saving potential can be found throughout the planning and implementation

process, and the sooner this is incorporated into the process, the greater the volume of potential savings. LEONI is your partner here, helping to achieve optimisation from the earliest project phases such as planning, through to implementation and commissioning.

Put your trust in the best partner to suit your needs. Investors, integrators, designers, installers and retail can all source their cabling, connectivity and complete cabling solutions from a single source – with copper and fiber optic system solutions being extended by LEONI-branded halogen-free energy cables.

Continuous innovations in safety, environmental compatibility and energy efficiency complete the list of customer benefits. Offering on-site consultations and a wealth of experience, LEONI is your internationally-recognised project partner.

For further information, visit www.leoni.com



Green technology

Combining innovation with sustainability. As a company, it's one of our most important goals.



Our vision is to create sustainable connections in technological harmony with the natural resources. The cycle of nature gives us the best model to emulate. It is our responsibility to learn from nature and make use of it while conserving it and treating it with care. The growing scarcity of the natural resources and the increasing burden on the environment require a rethink at all levels of society. For LEONI, sustainability is an integral part of group policy. We were the first cable manufacturer in the world to develop an integrated "green technology" programme.

While trends such as globalisation, mobility and urbanisation are crucial for market movements, our core principles are sustainability and global responsibility. To be considered the most innovative cable manufacturer for environmentally friendly technologies – that is our goal. Other points of vital interest to us are to detect the needs and requirements of tomorrow today and supply the markets of the future with sustainable, future-proof solutions. We also view it as our responsibility to take an active role in shaping the markets for environmentally friendly energy production – such as solar thermal technology.

Green technology refers to the resource-conserving and low-emission production of sustainable quality cables made with low-pollution materials. We constantly work at optimising the efficiency with which resources are used in the manufacturing process by deploying energy-efficient machines or

implementing heat recovery measures. More and more locations in our global production network are environmentally certified according to the ISO 14001 standard.

In our worldwide operations as a leading European supplier of wires, optical fiber, cables and cable systems for communication and infrastructure projects, it is our responsibility to continuously optimise the sustainability and durability of our products, system solutions and services so as to reduce their impact on the environment. We have to increase the amount of environmentally compatible raw materials in our cable products as well as the recyclability of processed materials or components and in doing so create end products that are developed for the environmental standards of tomorrow today.

In conjunction with the ecological compatibility, future technologies are measured in terms of efficiency, service life, emission reduction and the conservation of natural resources. Innovative cable products and systems, holistic solutions and maximum performance in project management are the added value which we offer to our customers and business partners. These are also our cornerstones for strong connections into the future.



Several environmental laws have been passed in the European Union (EU). Directive 2012/19/EU WEEE (Waste Electrical and Electronic Equipment) regulates the disposal of electrical and electronic equipment and components.

The use of certain hazardous materials in electrical and electronic devices is defined by Directive 2011/65/EU RoHS 2 (Restriction of Hazardous Substances). Chemicals and materials in general are regulated by the law on chemical substances 1907/2006/EC REACH (Registration, Evaluation, Authorisation and Restriction of Chemicals).

This means avoiding substances such as:

- Polybrominated diphenyl ether (PBDE)
- Decabromodiphenyl ether (DecaBDE)
- Perfluorooctane sulfonate (PFOS)
- Pentabromodiphenyl ether (PentaBDE)
- Octabromodiphenyl ether (OctaBDE)
- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd)
- Hexavalent chromium (Cr VI)
- Polybrominated biphenyls (PBB)



Cables and conductors and their associated connectors are only affected by Directive 2012/19/EU WEEE insofar as they are an internal part of the listed equipment and components.

Cables and conductors have now been included in RoHS 2 (2011/65/EU) since 2013 for the first time (Category 11 or as an internal component of the respective product). Fiber optic cables, power cables (>250 V) and permanently installed cables (e.g. in buildings) are not affected. The only permissible marking according to RoHS 2 is the CE marking, which is printed on the product package.

EU Directive 2012/19/EU on waste electrical and electronic equipment.

EU Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

EU Regulation 1907/2006/EC (REACH) – the EU chemicals regulation.



REACH

What does REACH mean?

REACH stands for Registration, Evaluation, Authorisation and Restriction of Chemicals.

REACH represents a fundamental harmonisation and simplification of previous chemicals law and applies in all EU Member States.

REACH introduced a so-called candidate list for substances of very high concern (SVHC), which are subject to certain information obligations and should be substituted in the long term. The list of candidate substances is updated twice yearly by the European Chemicals Agency (ECHA) in Helsinki.

Development, standards, trends

Requirements for future-proof cabling systems



Hybrid solutions

Modern data centers are very complex entities which are subject to constant changes in both their technical and organisational environments. The focal requirements are availability, flexibility and future-proofing at increasingly higher data rates. Simultaneously, planners and operators must manage a growing system density as server and storage systems are generally installed in small spaces.

Hyperscale, cloud and other virtualised data centers are causing a constant increase in data transfer rates. New switch generations for 25, 40, 50 and 100 GbE (Gigabit Ethernet) are now available or are being planned and demand correspondingly high-performance cable systems.

Requirements for data center IT cabling are set out in the DIN EN 50173-5 and ISO/IEC 11801-5 standards. The base requirement here is for cables to be both structured and user-neutral. In terms of standards, a response has already been made to the increasing data rates with new Ethernet standards for 40 and 100 Gbit/s, such as IEEE 802.3ba. Further standards, such as 25 and 50 GbE for passive network infrastructure, are being planned.

Additionally, switches and servers with fiber optic and copper ports for 25, 40 and 50 GbE will also be increasingly deployed. With cabling, hybrid solutions are required which are also capable of migration. Only upgradable systems can ensure permanent transmission with future generations of active components.

The trend is moving towards pre-assembled systems for copper and glass fiber. Plug&Play solutions are tested under laboratory conditions before shipment and can be quickly and safely used in data centers. Complex and error-prone assembly on site is not necessary.

Range of products and services

LEONI is there for you right from the very beginning

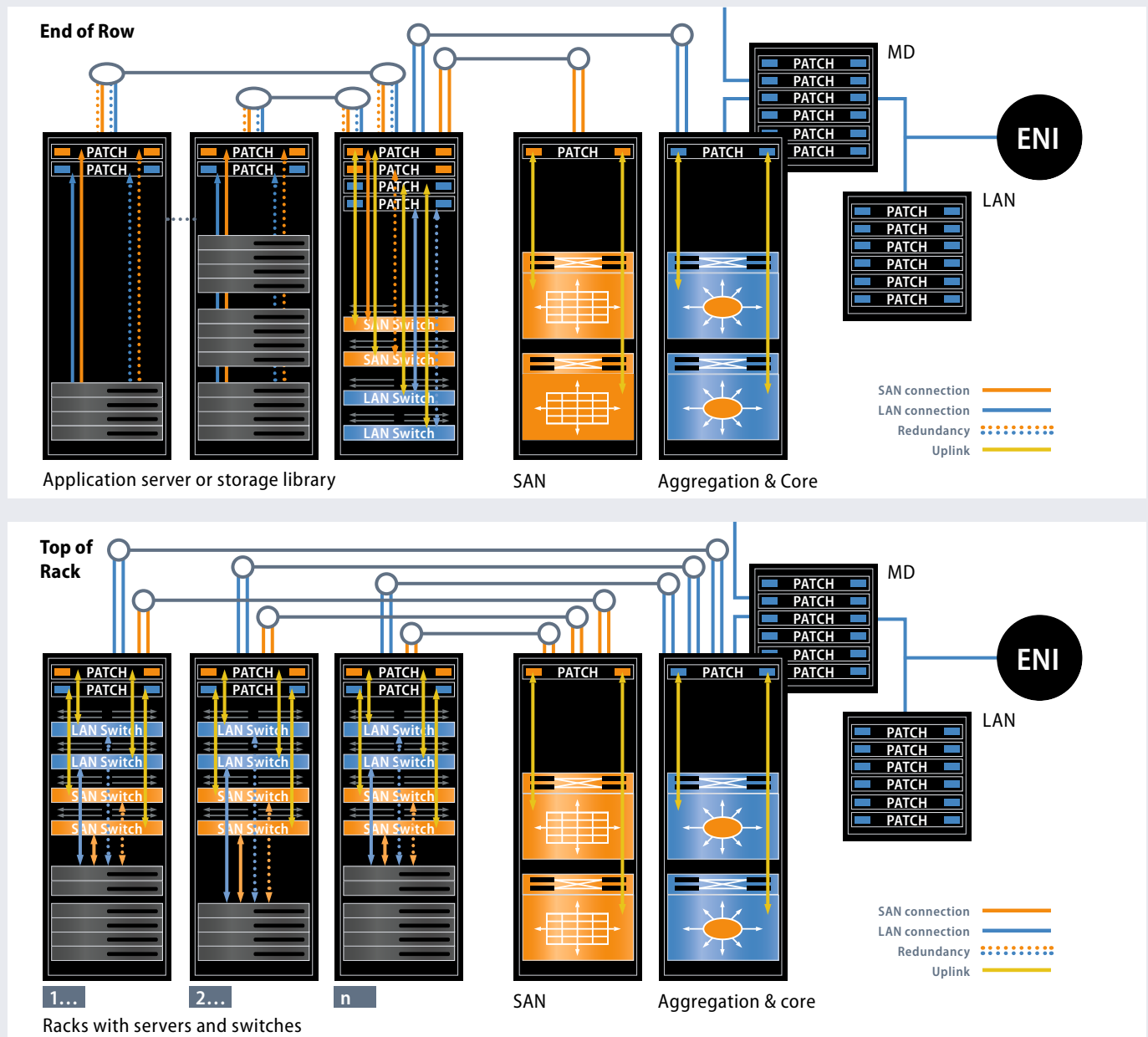
LEONI offers coherent, future-orientated concepts for cabling infrastructure requirements in data centers. The services offered range from advice for the planning of data centers through to standardised and customised cabling systems right through to after-sales services. With the high-performance and migration-capable DCLink Plug&Play solutions from LEONI, data centers are ready to cope with the management of complex server and storage environments both today and into the future.

LEONI supports you in the selection and installation of high-performance cable solutions for your IT topologies. You benefit not only from the LEONI specialist expertise, but also from the

tried-and-tested cabling systems which can be continually adapted to the growing data rates. Straightforward handling for all higher system densities is a fundamental requirement for all LEONI developments.

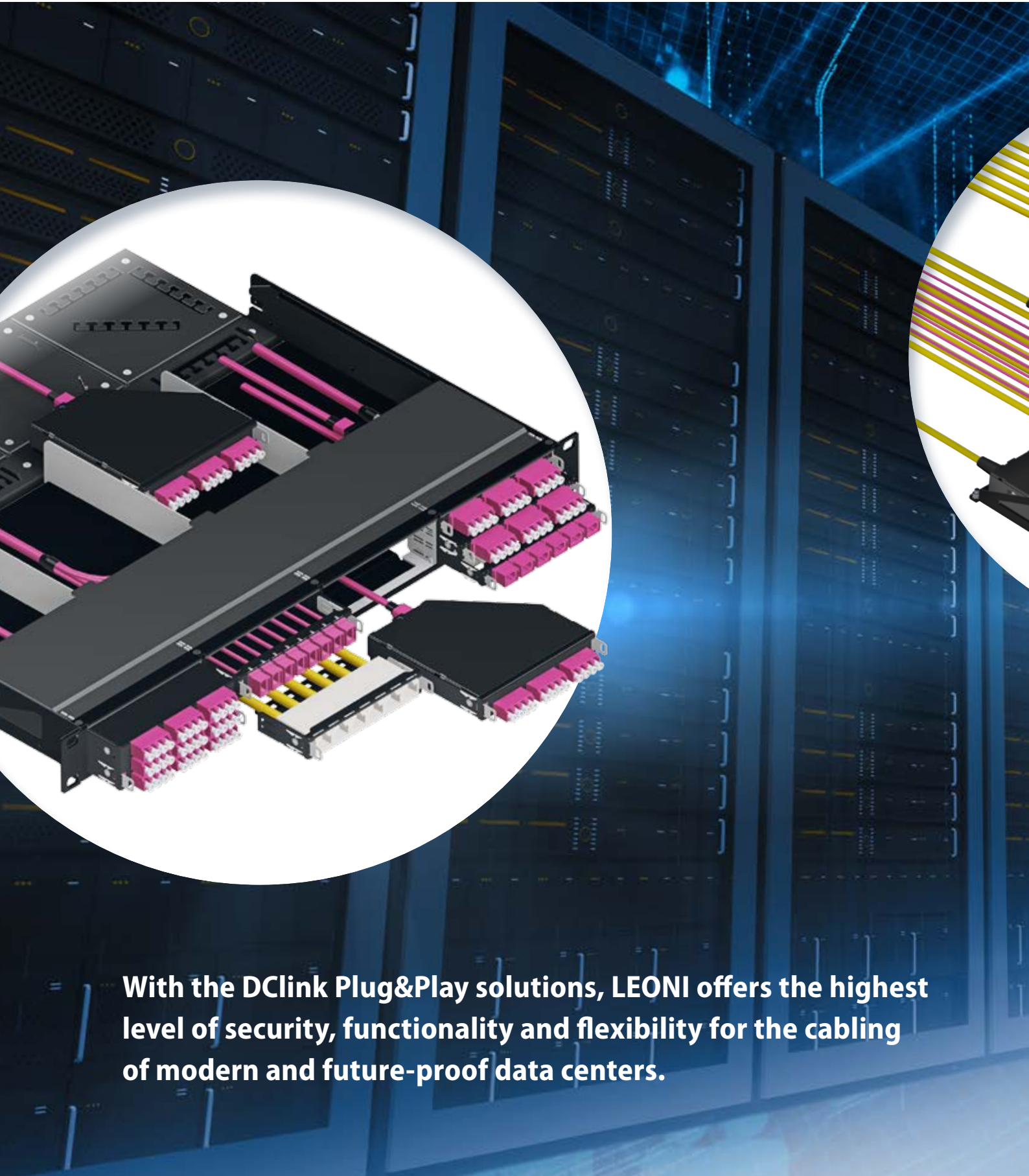
LEONI's DCLink Plug&Play solutions are easy to scale and are thus oriented towards the expansion and migration of IT infrastructures in the long term. Hence, you have a high level of investment protection.

Regardless of whether End-of-Row or Top-of-Rack – DCLink Plug&Play solutions of the Business Unit Datacom combine technologically-advanced fiber optic and copper systems to ensure that data centers can meet the full spectrum of requirements for structured cabling.



DClink – The real Plug&Play solution

Cabling systems with guaranteed future-proofing



With the DClink Plug&Play solutions, LEONI offers the highest level of security, functionality and flexibility for the cabling of modern and future-proof data centers.



DLink products ensure a high system/port density and thus optimal use of space. With DLink, firstly, both glass fiber as well as copper cabling can be installed in one rack unit, and secondly, the LC Uniboot patch cables contained have a maximum cable diameter of 2.8 mm.

With the DLink solutions, LEONI provides preassembled, pretested and ready-to connect transmission links that merely need to be laid and then "clicked into" the preinstalled frames. Optimal handling simplicity ensures minimum installation times. Not only moves, adds and changes (MACs) are easier,

DLink Plug&Play solutions also enable simple migration up to 100 Gbit/s.

The following accessories round off the LEONI DLink product range:

- **DLink cable tray with removable front**
- **various labelling fields**
- **rear-mounted cable trays**
- **document drawers**
- **CP housing for two ½ HP modules**
- **CP housing for three ⅓ HP modules**
- **CP housing for one 7 HP module**



The solution for your challenges

DCLink guarantees true future-proofing in data centers and storage area networks.

MegaLine® Connect100
Trunk cable
Page 42

Copper
trunk cable
MegaLine®

DCLink
Cable tray
Page 25

Patch panels
& accessories
DCLink

DCLink
Module rack
Page 24

DCLink
Patch cord tray
with removable front
Page 26

DCLink
Module rack
closed
Page 25

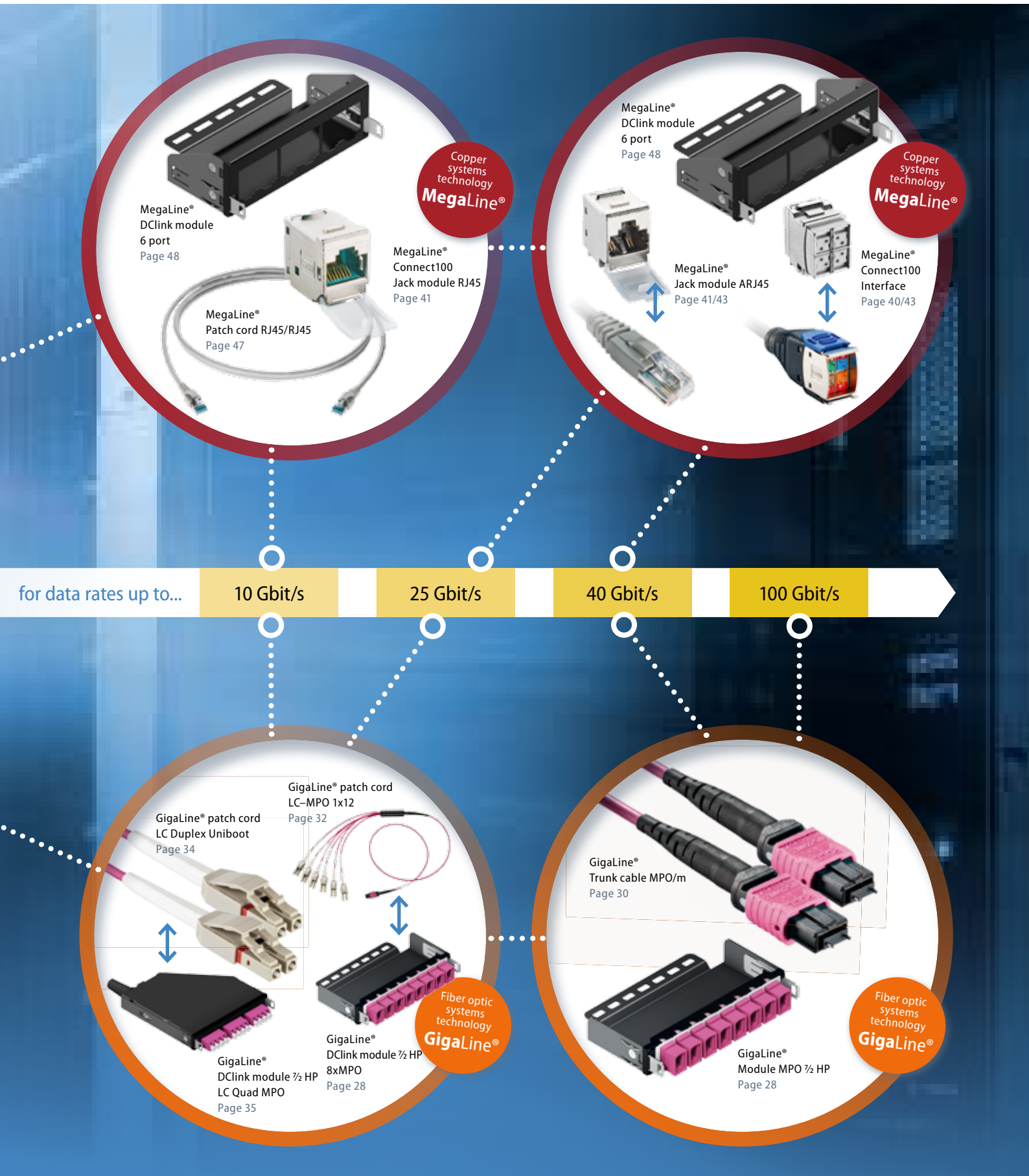
DCLink
Labelling strips
Page 27

DCLink
Blind module ½ HP
Page 26

GigaLine® DCLink
Trunk cable MPO/m
Page 29

Fiber optic
trunk cable
GigaLine®

MPO: we use MTP® connectors for our MPO assemblies.
MTP® is a registered trademark of USConec Ltd.



Application examples for fiber optic and copper systems technology



Application examples fiber optic systems technology		Page
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DCLink as operationally ready-to-use link in LC technology	for data rates up to 10/25 Gbit/s, migration-capable up to 40 and 100 Gbit/s	17
DCLink LC-MPO modular solution	for data rates up to 10/25 Gbit/s, migration-capable up to 100 Gbit/s	18
DCLink LC splice solution	for data rates up to 10/25 Gbit/s, migration-capable up to 40 Gbit/s	19

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MegaLine® DCLink MC100 module with trunks	Cu systems technology up to 40 Gbit/s	21

DCLink with MPO in patch panel 10/25/40/100

Migration solution for data rates of 40 and 100 Gbit/s

MPO cabling to the patch panel provides the best fiber optic solution in respect of efficiency and future-proofing.

The installed base system is made up of ready-to connect transmission links for all transmission speeds consisting of MPO trunks and MPO modules. No plugs are fitted on-site, only trunks are laid after installation of the module racks. Modules and MPO plugs are plugged in and the route is ready for current and future data rates. No superfluous connectors are required – meaning that you can easily comply with all of the limits imposed by the attenuation budget while saving on material, measurement and assembly costs.

This solution offers the highest packing density with up to 864 fibers in one rack unit, i.e. >>

- 432 duplex ports (up to 10 GBASE-SR and 25 GBASE-SR) or
- 72 12-fiber ports (40-GBASE-SR4 and 100-GBASE-SR4) or
- 36 2x12-fiber ports (100-GBASE-SR10)

Adjustment to match the various data transfer rates – 10, 40 or 100 Gbit/s – is simply made by selecting the right patch cables for the application. The base installation remains unaffected.

The fiber optic solution with the highest efficiency and future-proofing



GigaLine® DCLink MPO module with MPO trunks

Patch cords depending on the application >>

- 2 x MPO/f 12 to 2 x MPO/f 12 ①
- 2 x MPO/f 12 auf 1 x MPO/f 24 ②
- 1 x MPO/f 12 auf 1 x MPO/f 12 ③
- 1 x MPO/f 12 to 6 x LC duplex Uniboot ④

Installed base system >>

- MPO (migration) module 8 MPO couplings
- MPO trunk (1 fold/port, 2 fold/port, 8 fold/port)
- Module rack 1 RU or 3 RUs

100 Gbit/s
100 GBASE-SR10
1x MPO24/m

①

100 Gbit/s
100 GBASE-SR10
2x MPO12/m

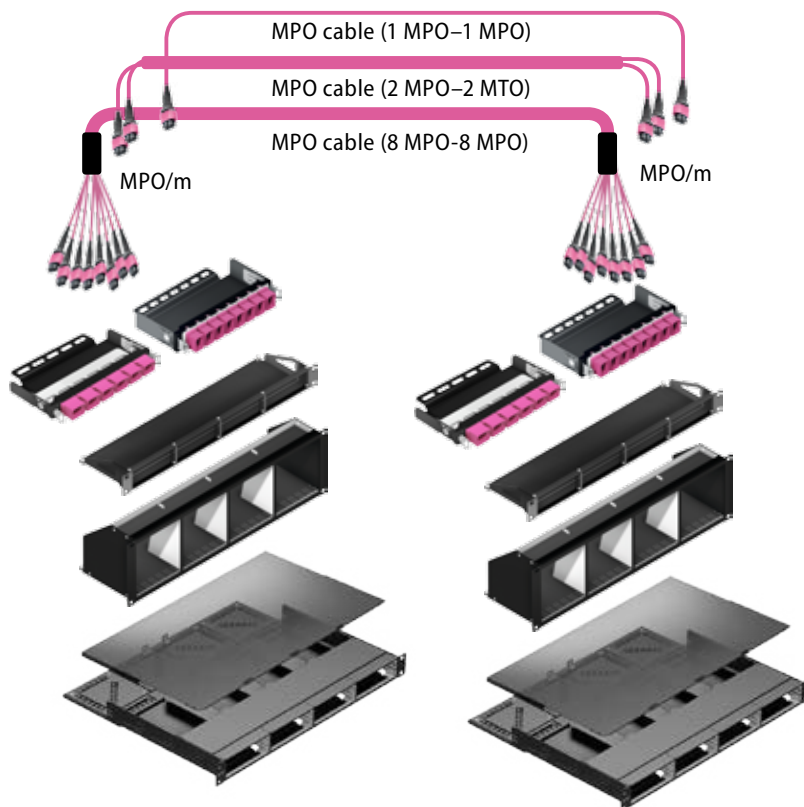
②

100 Gbit/s
100 GBASE-SR4
40 Gbit/s
40 GBASE-SR4
1x MPO12/m

③

25 Gbit/s
25 GBASE-SR
10 Gbit/s
10 GBASE-SR
LC duplex

④



DClick as operationally ready-to-use link in LC technology

for data rates up to 10/25 Gbit/s, migration-capable up to 40 and 100 Gbit/s

This 10 Gbit/s cable solution is supplied ready for use to the construction site. Simply install and slot in the rack mounts previously connected to the rack – all done!

The lack of splices in the route and the factory-fitted connectors guarantee minimum attenuation and a high quality standard.

Subject to agreement with the end customer, on-site acceptance measurements can even be waived.

The ready-to-use links are supplied measured ready for use.

There are no superfluous connectors required, you can therefore easily comply with all of the limits imposed by the attenuation budget here while also saving on material, measurement and

assembly costs. The complete link can be flexibly and quickly migrated to 40 or 100 Gbit/s cabling by exchanging the patch cord.

This solution offers packing densities of 96 fibers in one rack unit, i.e. >>

- 48 duplex ports (up to 10 GBASE-SR and 25 GBASE-SR) or
- 12 12-fiber ports (40-GBASE-SR4 and 100-GBASE-SR4) or
- 6 2x12-fiber ports (100-GBASE-SR10)

ready for use >>
for 10/25 Gbit/s
migratable >>
for 100 Gbit/s

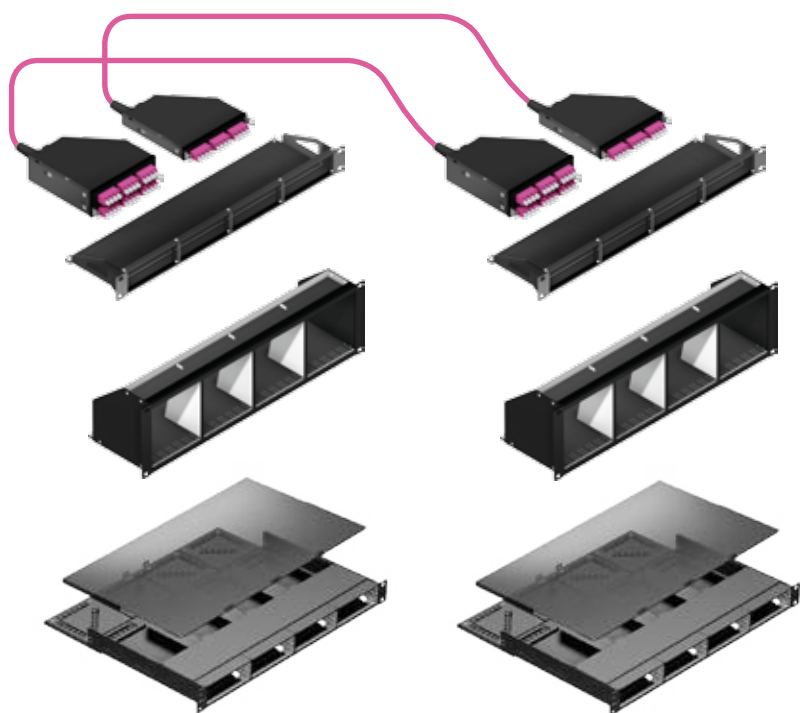
GigaLine® DClick with LC duplex

Installed base system >>

- Preassembled link with LC Quad couplings
- Module rack 1 RU or 3 RUs

Patch cords >>

- 1 x LC Duplex Uniboot to 1 x LC-Duplex-Uniboot ①
- 1 x MPO (fanout/harness) to 4 x LC Duplex Uniboots ②



25 Gbit/s
25 GBASE-SR
10 Gbit/s
10 GBASE-SR
LC Duplex

100 Gbit/s
100GBASE-SR4
40 Gbit/s
40 GBASE-SR4
1x MPO12/m

DClick LC-MPO modular solution

for data rates up to 10/25 Gbit/s, migration-capable up to 100 Gbit/s

This 10/25 Gbit/s cable solution consists of an MPO trunk and an LC-MPO module at each end. The cabling can be flexibly and quickly migrated to 40/100 Gbit/s cabling as required.

To do so, simply replace the modules at each end with MPO modules, thus converting them to the "MPO-in-patch-panel" solution described at the beginning. The existing trunk cabling continues to be used and does not need to be re-laid.

To minimise sources of error and considerably simplify work for the user, this 10/25 Gbit/s cable solution has been designed so that the fibers cross within a cross module to ensure that standard (crossover) patch cables can be used on either side.

The trunk between the two LC-MPO modules (1:1 module and cross module) is a type B MPO trunk, which simplifies the migration to 40/100 Gbit/s.

This solution is also available as a high-density solution with 144 fibers in one rack unit, i.e. >>

- 144 fibers, i.e. 72 duplex ports or
- 96 fibers, i.e. 48 duplex ports (up to 10 GBASE-SR and 25 GBASE-SR)

GigaLine® DClick LC-MPO module with MPO trunks

Patch cords >>

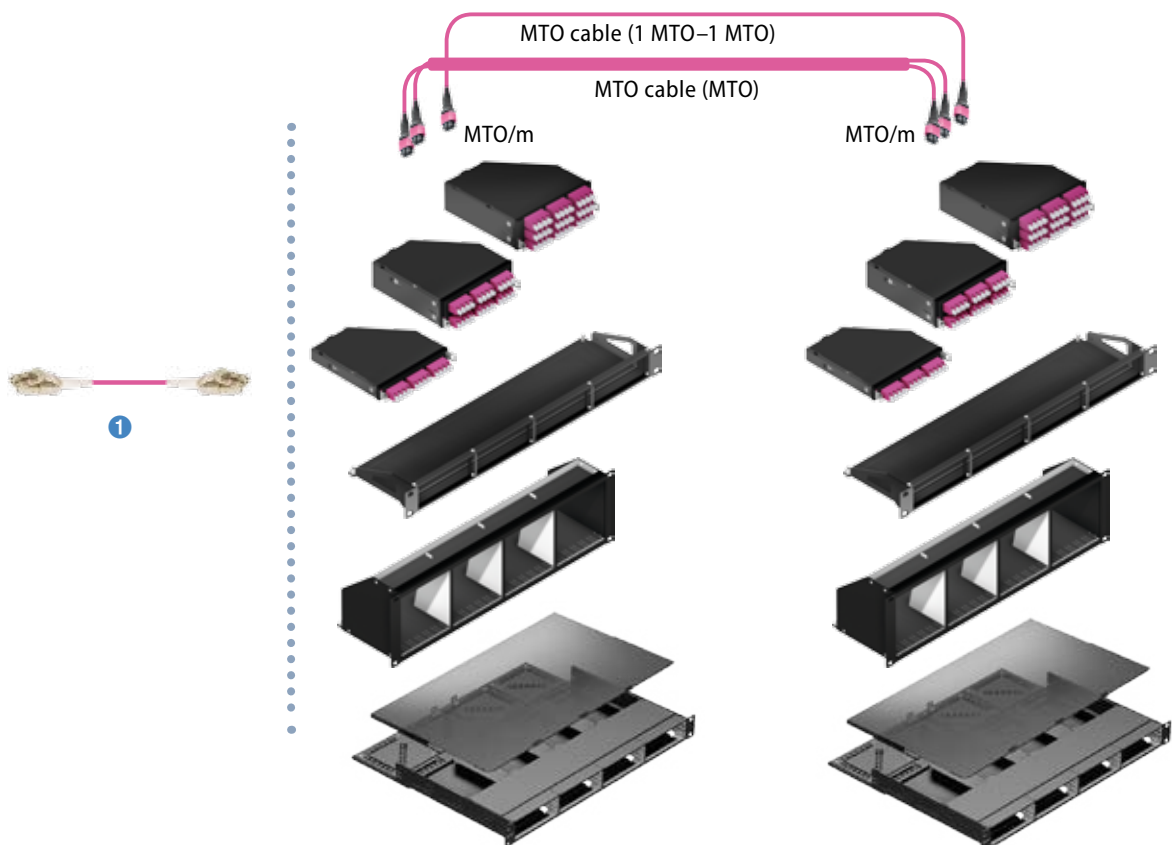
- LC Duplex to LC Duplex

1

Installed base system >>

- MPO/LC module
- MPO trunk
- Module rack 1 RU or 3 RUs

25 Gbit/s
25 GBASE-SR
10 Gbit/s
10 GBASE-SR
LC Duplex



DClk LC splice solution

for data transfer rates up to 10 Gbit/s, migration-capable up to 40 Gbit/s

For this 10 Gbit/s cabling, unassembled fiber optic installation cables are equipped at both ends with splice modules.

This classical splice solution can also be migrated at any time to a data rate of 40 Gbit/s by simply exchanging the LC patch cord.

Benefit from the advantages of flexible and fitted cabling on the construction site where normally universal fiber optic cables are used with loose tubes.

This solution offers packing densities of 96 fibers in one rack unit, i.e. >>

- 48 duplex ports (up to 25 Gbit/s)

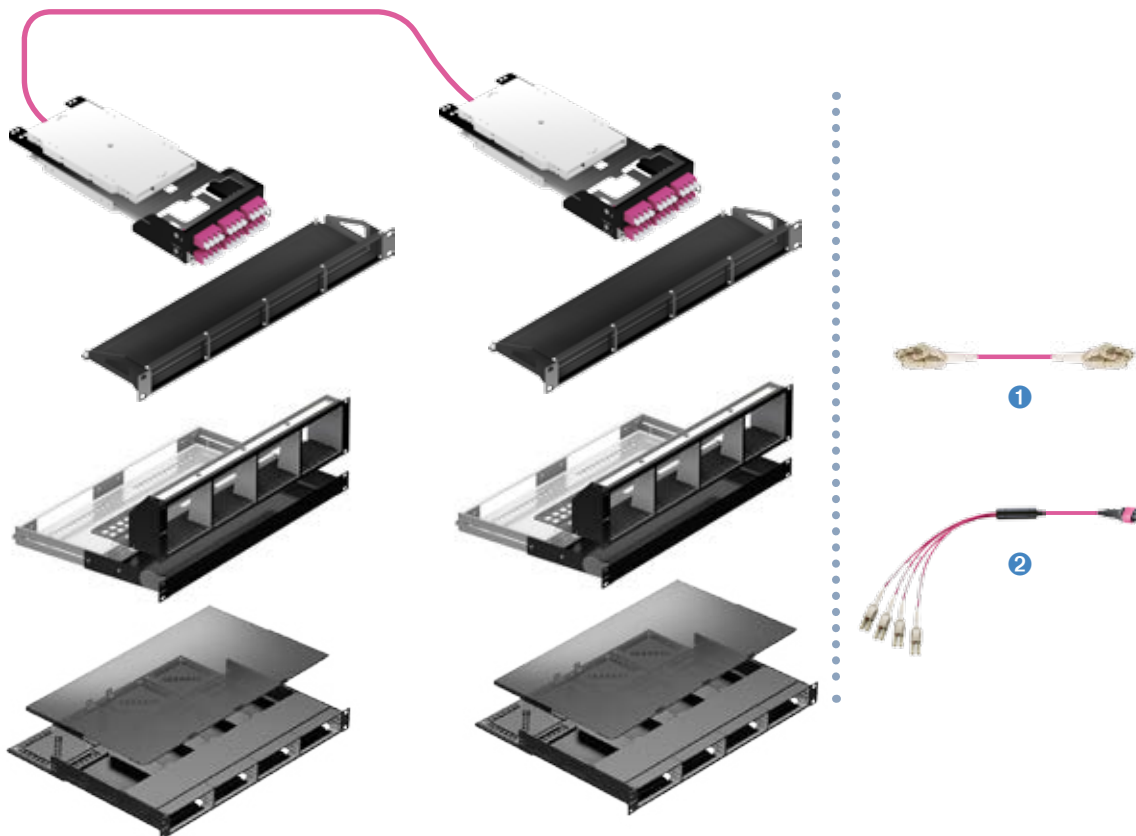
GigaLine® DClk splice solution with LC

Installed base system >>

- Preassembled link with LC Quad couplings
- Module rack 1 RU or 3 RUs

Patch cords >>

- 1 x LC Duplex Uniboot to 1 x LC Duplex Uniboot ①
- 1 x MPO to 4 x LC Duplex Uniboots (fanout/harness) ②



25 Gbit/s
25 GBASE-SR
10 Gbit/s
10 GABSE-SR
LC Duplex

100 Gbit/s
100 GBASE-SR4
40 Gbit/s
40 GBASE-SR4
1x MPO12/m

MegaLine® DCLink MC45 module with trunks

CU systems technology up to 10 Gbit/s

This 10 Gbit/s cable solution consists of a preassembled copper trunk with MegaLine® Connect45 modules.

Due to its compactness, high-density mounting of 48 ports per rack unit or 144 ports per module rack 3RU can be realised through the use of 24-pair data center link cables (24 PiMFe under one outer sheath).

As it is preassembled, fast installation is guaranteed.

The factory preassembly and testing of all high frequency parameters guarantees a high quality and direct operational capability on-site.

Cu systems technology
for data rates >>
up to 10 Gbit/s



MegaLine® DCLink MC45 module with trunks

Patch cords >>

- MegaLine® Patch cord RJ45
Cat. 6A / 500 MHz

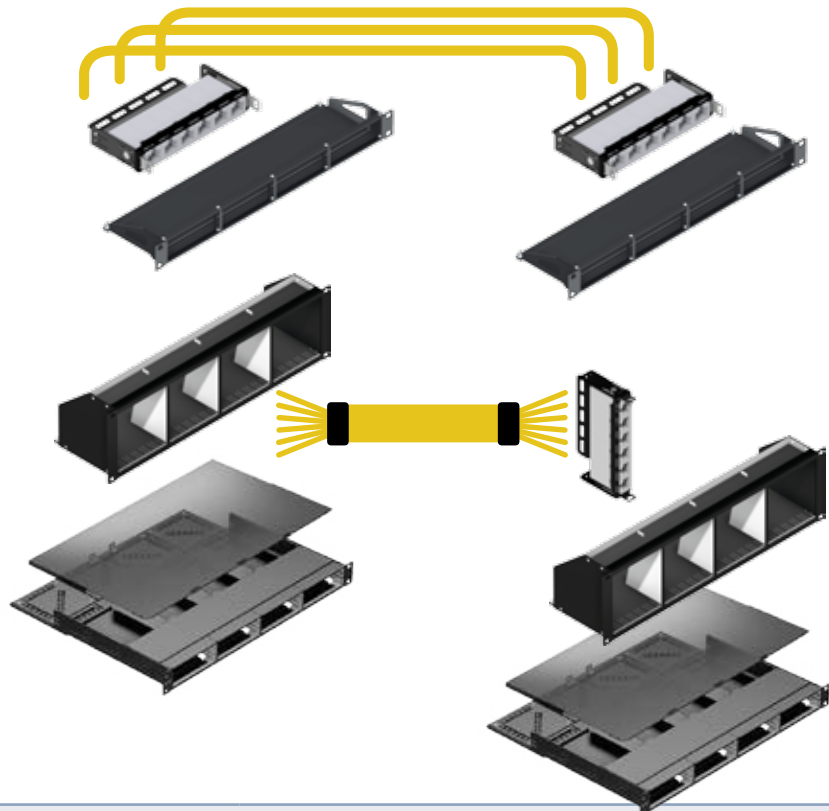
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Installed base system >>

- MC45 module
- MC45 trunk
- Module rack 1 RU or 3 RUs

10 Gbit/s
10 GBE
RJ45

1



MegaLine® DCLink MC100 module with trunks

CU systems technology up to 40 Gbit/s

This 40 Gbit/s cable solution consists of a preassembled copper trunk with MegaLine® Connect100 modules.

The ARJ45 module and the MegaLine® Connect100 interface can be used as mating faces.

As it is preassembled, fast installation is guaranteed.

The factory preassembly and testing of all high frequency parameters guarantees a high quality and direct operational capability on-site.

Cu systems technology
for data rates >>
up to 40 Gbit/s



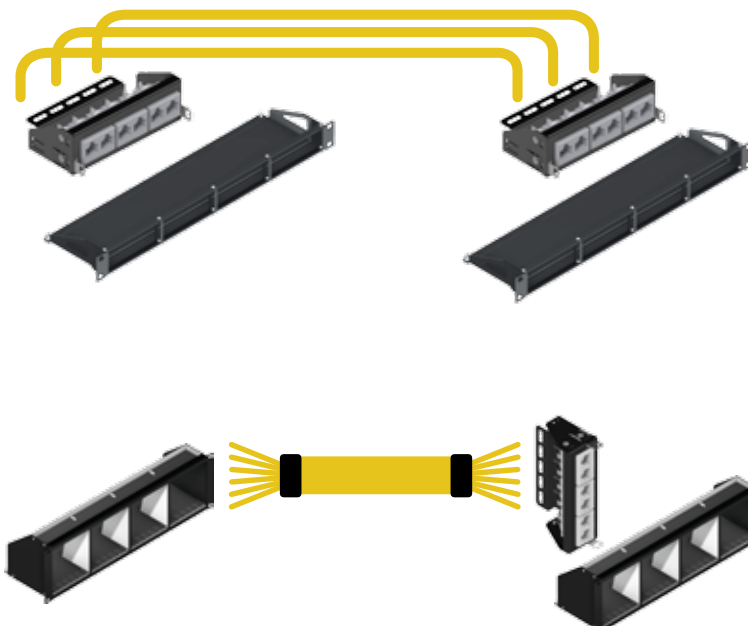
MegaLine® DCLink MC100 module with trunks

Installed base system >>

- MC100 module
- MC100 trunk
- Module rack 1 RU or 3 RUs

Patch cords >>

- MegaLine® patch cord ARJ45™ ①
- MegaLine® patch cord interface connector ②



40 Gbit/s
40 GBE

25 Gbit/s
25 GBE

Our DClick product range

DClick • GigaLine® • MegaLine®



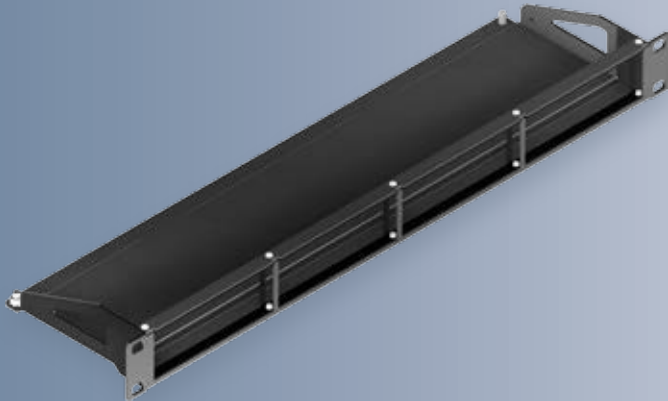
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DCLink cable tray	19" / for 1 RU or 3 RUs, straight	25
DCLink LC module rack	19" / 1 RU, closed	25
DCLink patch cord tray/blind module	for module racks	26
DCLink cassette for excess cable length	19" / 1 RU	27
DCLink labelling strip	in different versions	27

GigaLine® product range		Page
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GigaLine® DCLink trunk cable MPO	8 fold, MPO/m – MPO/m	29
GigaLine® DCLink trunk cable MPO	1 fold or 2 fold, MPO/m – MPO/m	30
GigaLine® patch cord MPO	1 fold or 2 fold, MPO/f – MPO/f	31
GigaLine® patch cord LC–MPO 1x12	6xLC Duplex Uniboot – 1xMPO/f	32
GigaLine® patch cord LC–MPO 1x8	4xLC Duplex or 4xLC Duplex Uniboot – 1xMPO/f	33
GigaLine® patch cord 10/25 Gbit/s	LC Duplex Uniboot or LC Duplex Uniboot high density with release flap	34
GigaLine® DCLink module LC Quad MPO	3x / 6x / 9xLC Quad couplings – 1x / 2x / 3xMPO/f	35
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MegaLine® patch cord RJ45/RJ45 cat. 6 _A / 500 MHz	shielded, cat. 6 _A , Class E ₆₀ , with coloured moulded boots	47
MegaLine® DCLink module 6 port	VK format/keystone format / ELine format	48

DCLink module rack

19" / 1 RU or 3 RUs, straight



DCLink module rack 19" / 1 RU straight

Description

For the installation of max. 8 DCLink modules ½ HP or 4 DCLink modules 7 HP.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

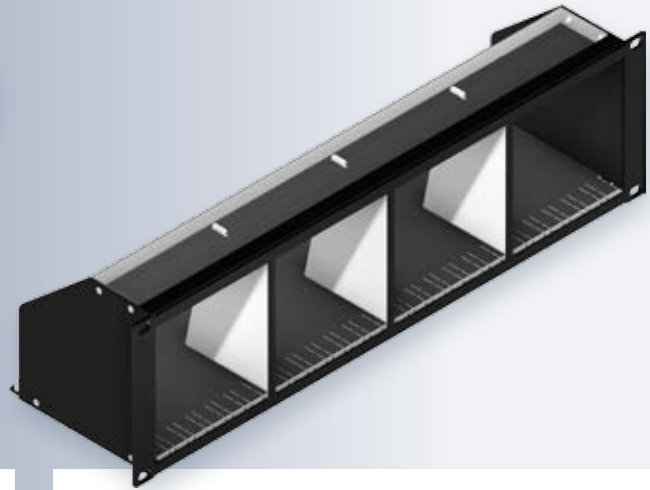
Construction/type

Housing	Sheet steel, powder coated
Colour	Jet black, RAL 9005
Dimension	483 x 44 x 130 mm (WxHxD)
Labelling	Numbers 1–8
Equipotential bonding	2 x earthing lugs

Installation/ module configuration

Installation	in the 19" rack with cage screws and nuts tool-free thanks to snap-in technique
Module configuration	mixed configuration possible with copper/ fiber optic modules in various sizes

Article	PU	Order no.
DCLink module rack 19" / 1 RU straight	1 pc.	LKD 9500 0001 0000



DCLink module rack 19" / 3 RUs straight

Description

For the installation of max. 24 DCLink modules ½ HP or 12 DCLink modules 7 HP.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Construction/type

Housing	Sheet steel, powder coated
Colour	Jet black, RAL 9005
Dimension	483 x 134 x 130 mm (WxHxD)
Labelling	Numbers 1–24
Equipotential bonding	2 x earthing bolts M5

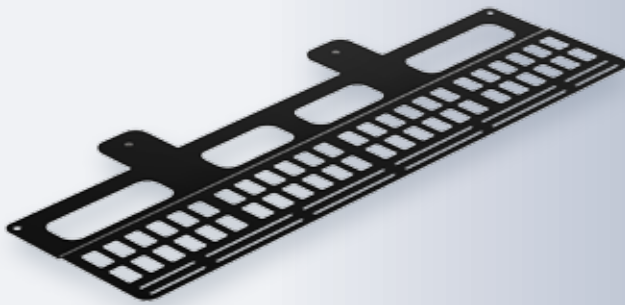
Installation/ module configuration

Installation	in the 19" rack with cage screws and nuts tool-free thanks to snap-in technique
Module configuration	mixed configuration possible with copper/ fiber optic modules in various sizes

Article	PU	Order no.
DCLink module rack 19" / 3 RUs straight	1 pc.	LKD 9500 0003 0000

DCLink cable tray

19" / for 1 RU or 3 RUs, straight



DCLink cable tray straight

Description

For rear mounting on straight module racks 1 RU and 3 RUs. 1 meter Velcro strap (width 10 mm) is supplied for individual cutting.

Construction/type

Housing	Sheet steel, powder coated
Colour	Jet black, RAL 9005
Dimension	445 x 4 x 200 mm (WxHxD)

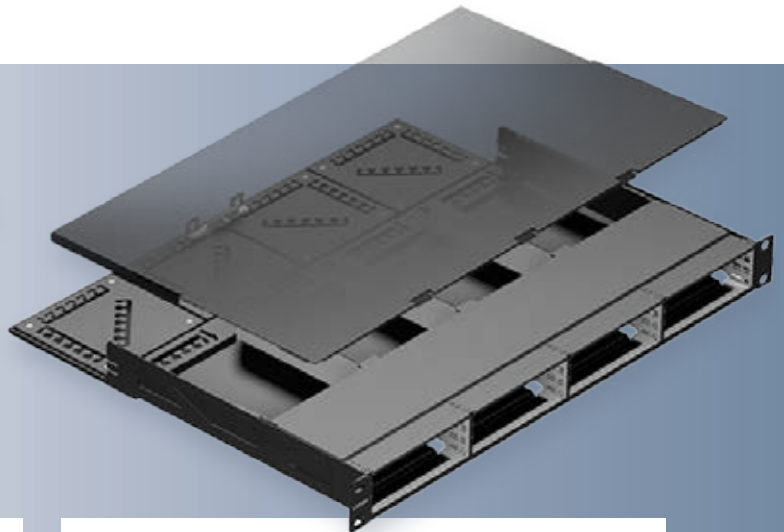
Installation

Installation	Screw fastening
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Article	PU	Order no.
DCLink cable tray straight with Velcro strap and retaining screws	1 pc.	LKD 9D50 0007 0000

DCLink module rack

19" / 1 RU, closed



DCLink module rack 19" / 1 RU closed with universal cable tray

Description

For the installation of DCLink modules in four slots for 3 x 7/8 HP modules or 2 x 7/8 HP modules or 1 x 7 HP module. Four universally exchangeable cable management trays allow the fixing of interior cables with cable ties. Further cable trays are available.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Construction/type

Housing	Sheet steel, powder coated
Colour	Jet black, RAL 9005
Dimension	483 x 44 x 400 mm (WxHxD)
Labelling	Numbers 1-12
Equipotential bonding	2 x earthing lugs

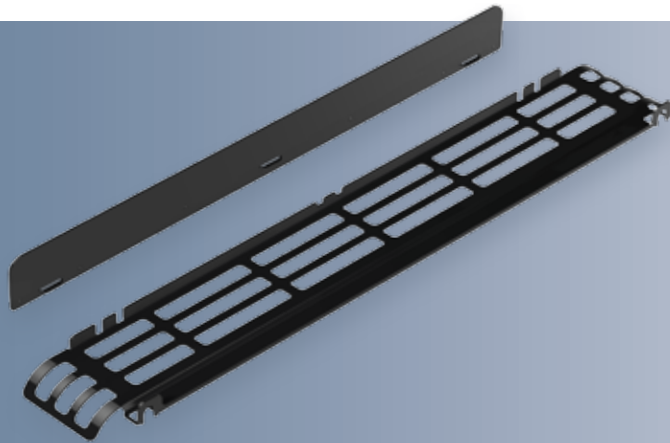
Installation/ module configuration

Installation	in the 19" rack with cage screws and nuts, the housing has a cover which closes with two quick fasteners (alternatively available with lock) tool-free thanks to snap-in technique
Module configuration	mixed configuration possible with copper/ fiber optic modules in various sizes

Article	PU	Order no.
DCLink module rack 19" / 1 RUs straight with cover and four universal cable trays (without lock)	1 pc.	LKD 9500 0024 0000

DCLink patch cord tray / blind module

for module racks



DCLink patch cord tray

Description

Comprising base support and removable front panel for direct or subsequent front-side mounting without forfeiting one rack unit on straight module racks 1 RU and 3 RUs. 1 meter Velcro strap (width 10 mm) is supplied for individual cutting.

Construction/type

Housing	Sheet steel, powder coated
Colour	Jet black, RAL 9005 Light grey, RAL 7035
Dimension	525 x 50 x 85 mm (WxHxD)

Installation/fitting

Installation	can be installed on the cage screws on the front-side of the module racks
Fitting	DCLink module rack straight 1 RU or 3 RUs

Accessories (optional)

Labelling strip for the individual labelling of the front panel, order no. LKD 9500 0005 0000 (see next page).

Article	Colour	PU	Order no.
DCLink patch cord tray 1 RU incl. Velcro strap and front panel	Jet black RAL 9005	1 pc.	LKD 9500 0025 0000
	Light grey RAL 7035	1 pc.	LKD 9500 0026 0000



Fig. 1
DCLink
blind module 7 HP

Fig. 2
DCLink
blind module ½ HP

Fig. 3
DCLink
blind module ⅓ HP

DCLink blind module 7 HP
DCLink blind module ½ HP
DCLink blind module ⅓ HP

Description

For the covering of unused module sockets in module racks.

Construction/type

Housing	Sheet steel, galvanised
Colour	Jet black, RAL 9005

Dimensions

for version 7 HP	106 x 35 x 65 mm (WxHxD)
for version ½ HP	106 x 17 x 65 mm (WxHxD)
for version ⅓ HP	106 x 12 x 65 mm (WxHxD)

Installation/fitting

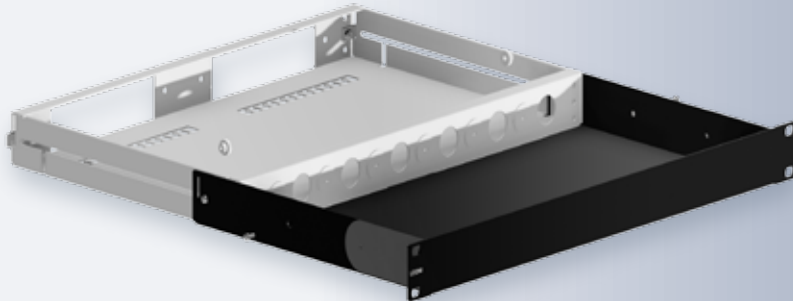
Installation	tool-free with click-in technology possible from front and rear
Fitting	DCLink module rack 1 RU or 3 RUs DCLink consolidation point

Accessories (optional)

Labelling strip for the individual labelling of the front panel, order no. LKD 9500 0011 0000 (see next page).

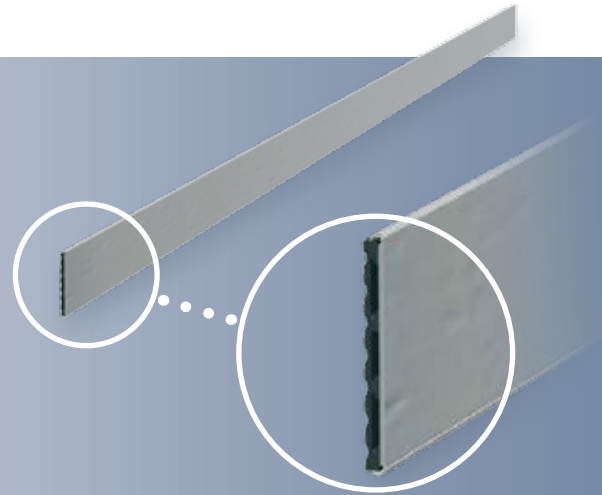
Fig.	Article	PU	Order no.
1	DCLink blind module 7 HP	1 pc.	LKD 9500 0018 0000
2	DCLink blind module ½ HP	1 pc.	LKD 9500 0010 0000
3	DCLink blind module ⅓ HP	1 pc.	LKD 9500 0027 0000

DClick cassette for excess cable length 19" / 1 RU



DClick labelling strip

in different versions



DClick cassette for excess cable length 19" / 1 RU

Description

For cable tray and protected laying and distribution of the loose tubes/trunk elements to the modules in the module rack. Prepared for cable entry with 12 cable screw couplings, 2 loose tube distributors or for holding fiber optic trunk distributor heads. Cassette for excess cable length with pull-out excess length drawer, loose tube distributor, protective tube for loose tubes and cable strain reliefs for installation below 19" module rack.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Construction/type

Cassette for excess cable length

Housing	Sheet steel, powder coated
Colour	Jet black, RAL 9005
Dimension	483 x 44 x 290 mm (WxHxD)

Excess length drawer

Housing	Aluminium
Dimension	425 x 42 x 280 mm (WxHxD)

Article	PU	Order no.
DClick cassette for excess length drawer 19" / 1 RU	1 pc.	LKD 9S00 0019 0000
DClick excess cable draw 1 RU	1 pc.	LKD 9S00 0020 0000
DClick loose tube distributor, left	1 pc.	LKD 9S00 0022 0000

DClick labelling strip

Description

Self-adhesive PVC strip for subsequent labelling
Colour: grey-transparent

Dimensions

for patch cord tracking tray 1 RU	440 x 32 mm (WxH)
for blind cover ½ HP	95 x 8 mm (WxH)
for module rack ½ RU	440 x 8 mm (WxH)

Scope of delivery

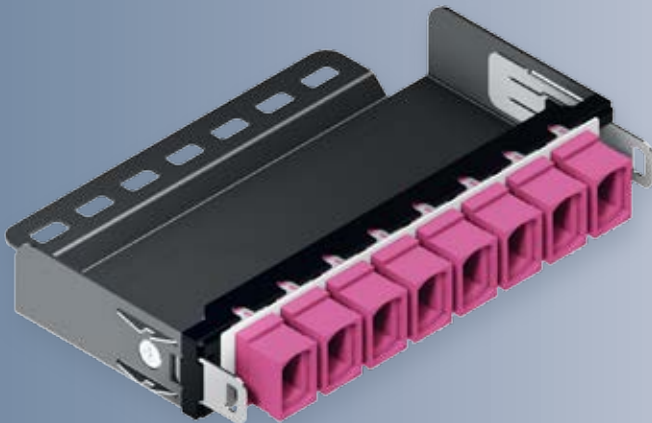
Labelling strip is supplied with paper and cover.

Article	Type	PU	Order no.
DClick Labelling strip	for patch cord tray 1 RU	5 pcs.	LKD 9S00 0005 0000
	for blind cover ½ HP	5 pcs.	LKD 9S00 0011 0000
	for module rack 3 RUs	5 pcs.	LKD 9S00 0006 0000

GigaLine® DClick module MPO

½ HP 8xMPO and ⅓ HP 6xMPO

For data rates
10/25/40/100
Gbit/s



GigaLine® DClick module ½ HP 8xMPO

Description

Fitted with 8 MPO couplings for configuring transmission links with preassembled GigaLine® trunks and patch cords for the applications

- 48 x 10/25 GBASE SR
- 8 x 40/100 GBASE SR-4- or 4 x 100 GBASE-SR10

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

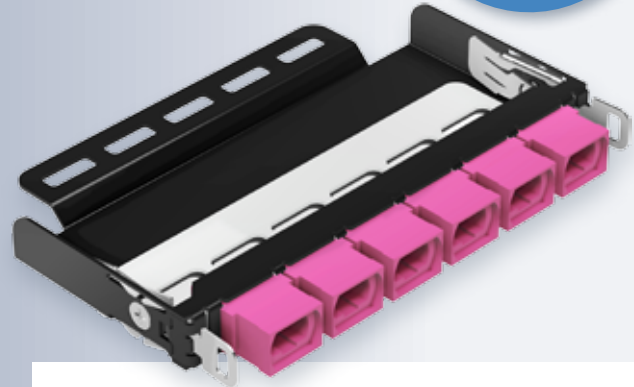
Construction/type

Housing	Sheet steel, galvanised
Colour	Jet black, RAL 9005
Dimension	incl. couplings 106 x 17 x 75 mm (WxHxD)
Couplings	8 x MPO
Couplings colours	OS2 APC ● green
	OM3 ● aqua
	OM4 ● heather violet

Installation/cabling

Installation	tool-free with click-in technology possible from the front and rear
Cabling	using GigaLine® trunks and patch cords

Article	Category	PU	Order no.
GigaLine® DClick module 8xMPO	OS2 (APC)	2 pcs.	LKD 95E0 0024 0000
	OM3	2 pcs.	LKD 95E0 0013 0000
	OM4	2 pcs.	LKD 95E0 0004 0000



GigaLine® DClick module ⅓ HP 6xMPO

Description

Fitted with 6 MPO couplings for configuring transmission links with preassembled GigaLine® trunks and patch cords for the applications

- 36 x 10/25 GBASE SR
- 6 x 40/100 GBASE SR-4- or 3 x 100 GBASE-SR10

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Construction/type

Housing	Sheet steel, galvanised
Colour	Jet black, RAL 9005
Dimension	incl. couplings 106 x 12 x 75 mm (WxHxD)
Couplings	6 x MPO
Couplings colours	OS2 APC ● green
	OM3 ● aqua
	OM4 ● heather violet

Installation/cabling

Installation	tool-free with click-in technology possible from the front and rear
Cabling	using GigaLine® trunks and patch cords

Article	Category	PU	Order no.
GigaLine® module DClick 6xMPO	OS2 (APC)	2 pcs.	LKD 95E0 0054 0000
	OM3	2 pcs.	LKD 95E0 0055 0000
	OM4	2 pcs.	LKD 95E0 0056 0000

GigaLine® DCLink trunk cable MPO

8 fold, MPO/m – MPO/m

For data rates
10/25/40/100
Gbit/s



GigaLine® trunk MPO, 8 fold

Description

Ready-to use preassembled GigaLine® MPO trunk with 8x12 fibers MPO/m – MPO/m. Preassembled at both ends with MPO male connectors for configuring transmission links with DCLink MPO modules and patch cords for the applications

- 48 x 10/25 GBASE SR
- 8 x 40/100 GBASE SR-4- or 4 x 100 GBASE-SR10

or with LC–MPO modules and LC duplex patch cords for

- 48 x 10/25 GBASE SR

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Type

Connection on DCLink module 8 x MPO ½ HP
on DCLink module 6 x LC Quad – 2 x MPO 7 HP
on DCLink module 3 x LC Quad – 1 x MPO ½ HP
on DCLink module 3 x LC Quad – 1 x MPO ¾ HP

Cable type GigaLine® I-F(ZN)HH 8x12 OS2
GigaLine® I-F(ZN)HH 8x12 OM3 bendable
GigaLine® I-F(ZN)HH 8x12 OM4 bendable

Sheath colour OS2 ● yellow
OM3 ● aqua
OM4 ● heather violet

Plug colour OS2 ● APC mustard yellow
OM3 ● aqua
OM4 ● heather violet

Optical characteristics

Insertion loss 0.10 dB (typ.)
0.30 dB (max.)
Return loss > 60 dB (SM APC)
> 30 dB (MM)

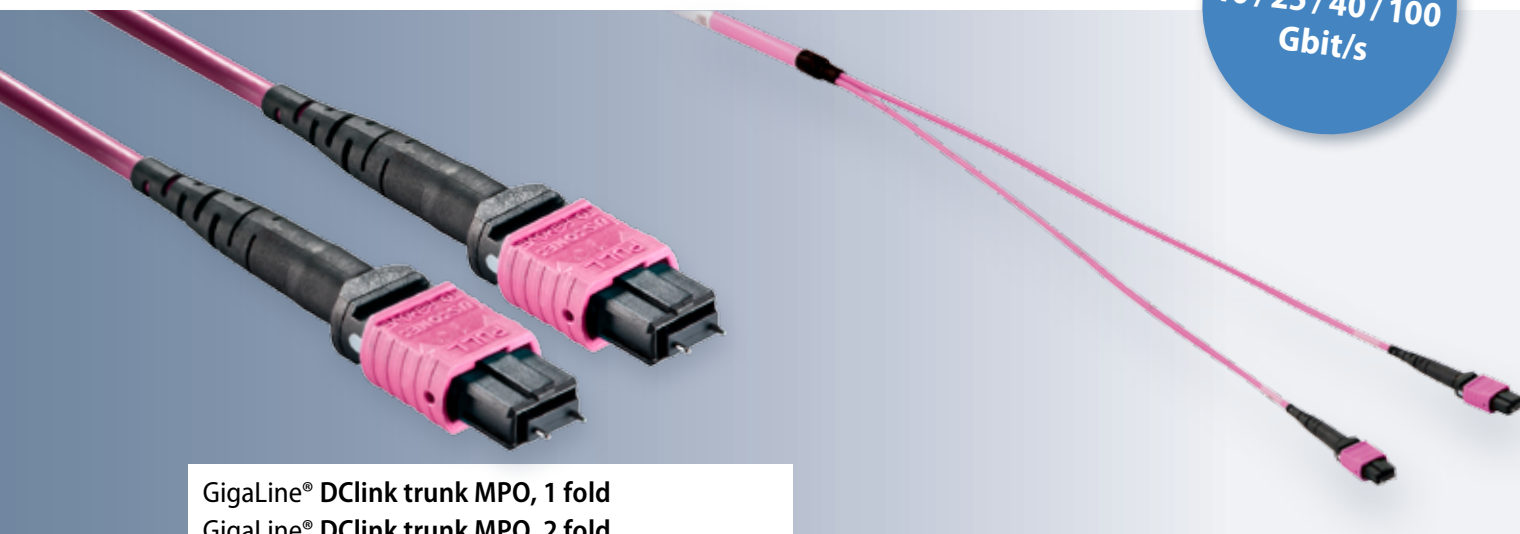
Article	Wiring	PU	Order no.
GigaLine® trunk MPO, 8 fold 8x12 8xMPO/m – 8xMPO/m	OS2 (APC)	1 pc.	LKD 9STM 2GF6 0xxx*
	OM3	1 pc.	LKD 9STM 3CF6 0xxx*
	OM4	1 pc.	LKD 9STM 4CF6 0xxx*

* xxx = length in dm (from connector to connector) Example: 15 m = 150

GigaLine® DClick trunk cable MPO

1 fold or 2 fold, MPO/m – MPO/m

For data rates
10/25/40/100
Gbit/s



GigaLine® DClick trunk MPO, 1 fold
GigaLine® DClick trunk MPO, 2 fold

Description

Ready-to use preassembled GigaLine® MPO trunk with 1x12 or 2x12 fibers MPO/m – MPO/m. Preassembled at both ends with MPO male connectors for configuring transmission links with DClick MPO modules and patch cords.

Applications for the MPO trunk, 1 fold

- 6 x 10/25 GBASE SR
- 1 x 40/100 GBASE SR-4

or with LC–MPO modules and LC Duplex patch cords for

- 6 x 10/25 GBASE SR

Applications for the MPO trunk, 2 fold

- 12 x 10/25 GBASE SR
- 2 x 40/100 GBASE SR-4 or 1 x 100 GBASE SR-10

or with LC–MPO modules and LC Duplex patch cords for

- 12 x 10/25 GBASE SR

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Article	Wiring	PU	Order no.
GigaLine® DClick trunk MPO 1 fold 1x12 1xMPO/m – 1xMPO/m	OS2 (APC)	1 pc.	LKD 9STM 2GB0 0xxx*
	OM3	1 pc.	LKD 9STM 3CB0 0xxx*
	OM4	1 pc.	LKD 9STM 4CB0 0xxx*
GigaLine® DClick trunk MPO 2 fold 2x12 2xMPO/m – 2xMPO/m	OS2 (APC)	1 pc.	LKD 9STM 2GC0 0xxx*
	OM3	1 pc.	LKD 9STM 3CC0 0xxx*
	OM4	1 pc.	LKD 9STM 4CC0 0xxx*

* xxx = length in dm (from connector to connector) Example: 15 m = 150

Type

Connection on DClick module 8 x MPO ½ HP
on DClick module 6 x LC Quad – 2 x MPO 7 HP
on DClick module 3 x LC Quad – 1 x MPO ½ HP
on DClick module 3 x LC Quad – 1 x MPO ⅓ HP

Cable type

GigaLine® I-F(ZN)H(ZN)H 1x12 OS2
GigaLine® I-F(ZN)H(ZN)H 1x12 OM3 bendable
GigaLine® I-F(ZN)H(ZN)H 1x12 OM4 bendable
GigaLine® I-F(ZN)H 2x12 OS2
GigaLine® I-F(ZN)H 2x12 OM3 bendable
GigaLine® I-F(ZN)H 2x12 OM4 bendable

Sheath colour

OS2 ● yellow
OM3 ● aqua
OM4 ● heather violet

Plug colour

OS2 ● APC mustard yellow
OM3 ● aqua
OM4 ● heather violet

Optical characteristics

Insertion loss 0.10 dB (typ.)
0.30 dB (max.)
Return loss > 60 dB (SM APC)
> 30 dB (MM)

GigaLine® patch cord MPO

1 fold or 2 fold, MPO/f – MPO/f

For data rates
40 / 100
Gbit/s



GigaLine® patch MPO 1x12
GigaLine® patch MPO 2x12



Description

Ready-to use preassembled GigaLine® MPO patch cord with 1x12 or 2x12 MPO/f – MPO/f. Preassembled at both ends with 1 or 2 MPO female connectors for configuring transmission links with DCLink MPO modules and trunks patch cords for 10, 25, 40 or 100 Gbit/s applications.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Type

Connection

- on DCLink module 8 x MPO ½ HP
- on DCLink module 6 x LC Quad – 2 x MPO 7 HP
- on DCLink module 3 x LC Quad – 1 x MPO ½ HP
- on DCLink module 3 x LC Quad – 1 x MPO ¾ HP

Cable type

- GigaLine® I-F(ZN)H 1x12 OS2
- GigaLine® I-F(ZN)H 1x12 OM3 bendable
- GigaLine® I-F(ZN)H 1x12 OM4 bendable
- GigaLine® I-F(ZN)H 2x12 OS2
- GigaLine® I-F(ZN)H 2x12 OM3 bendable
- GigaLine® I-F(ZN)H 2x12 OM4 bendable

Sheath colour

- OS2 ● yellow
- OM3 ● aqua
- OM4 ● heather violet

Plug colour

- OS2 ● APC mustard yellow
- OM3 ● aqua
- OM4 ● heather violet

Optical characteristics

Insertion loss

- 0.10 dB (typ.)
- 0.30 dB (max.)

Return loss

- > 60 dB (SM APC)
- > 30 dB (MM)

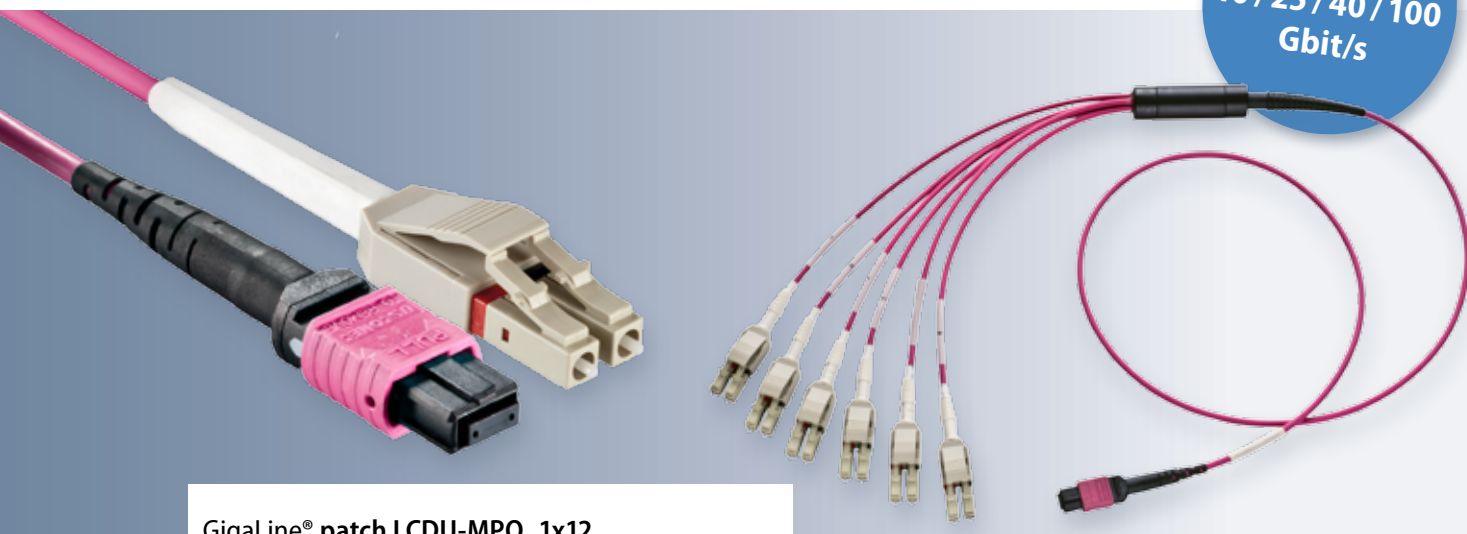
Article	Wiring	PU	Order no.
GigaLine® patch MPO 1x12 1xMPO/f – 1xMPO/f	OS2 (APC)	1 pc.	LKD 9SPM 2FB0 0xxx*
	OM3 KBG00004	1 pc.	LKD 9SPM 3DB0 0xxx*
	OM4 KBG00004	1 pc.	LKD 9SPM 4DB0 0xxx*
GigaLine® patch MPO 2x12 2xMPO/f – 2xMPO/f	OS2 (APC)	1 pc.	LKD 9SPM 2FC0 0xxx*
	OM3 KBG00004	1 pc.	LKD 9SPM 3DC0 0xxx*
	OM4 KBG00004	1 pc.	LKD 9SPM 4DC0 0xxx*

* xxx = length in dm (from connector to connector) Example: 1.5 m = 015

GigaLine® patch cord LC-MPO 1x12

6xLC Duplex Uniboot – 1xMPO/f

For data rates
10/25/40/100
Gbit/s



GigaLine® patch LCDU-MPO 1x12

Description

Ready-to use preassembled GigaLine® MPO patch cord with a divider for 6 LC Duplex Uniboot connectors on one MPO female connector. For the simple adaption of MPO cabling (12-fiber systems) to cabling ≤10 Gbit/s (6 Duplex fiber systems).

Both a dividing patch cord 1:1 and a X-X are required for the setting up of complete links.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Type

Connection	on DCLink module 8 x MPO ½ HP		
Cable type	GigaLine® I-F(ZN)H 1x12 OS2 GigaLine® I-F(ZN)H 1x12 OM3 bendable GigaLine® I-F(ZN)H 1x12 OM4 bendable		
Sheath colour	OS2	● yellow	
	OM3	● aqua	
	OM4	● heather violet	

Optical characteristics

MPO insertion loss	0.10 dB (typ.) 0.30 dB (max.)	
MPO return loss	> 60 dB (SM APC)	> 30 dB (MM)
LC insertion loss	0.25 dB (typ.) (SM PC) 0.35 dB (max.) (SM PC) 0.25 dB (typ.) (MM) 0.40 dB (max.) (MM)	
LC return loss	> 50 dB (SM PC)	> 35 dB (MM)

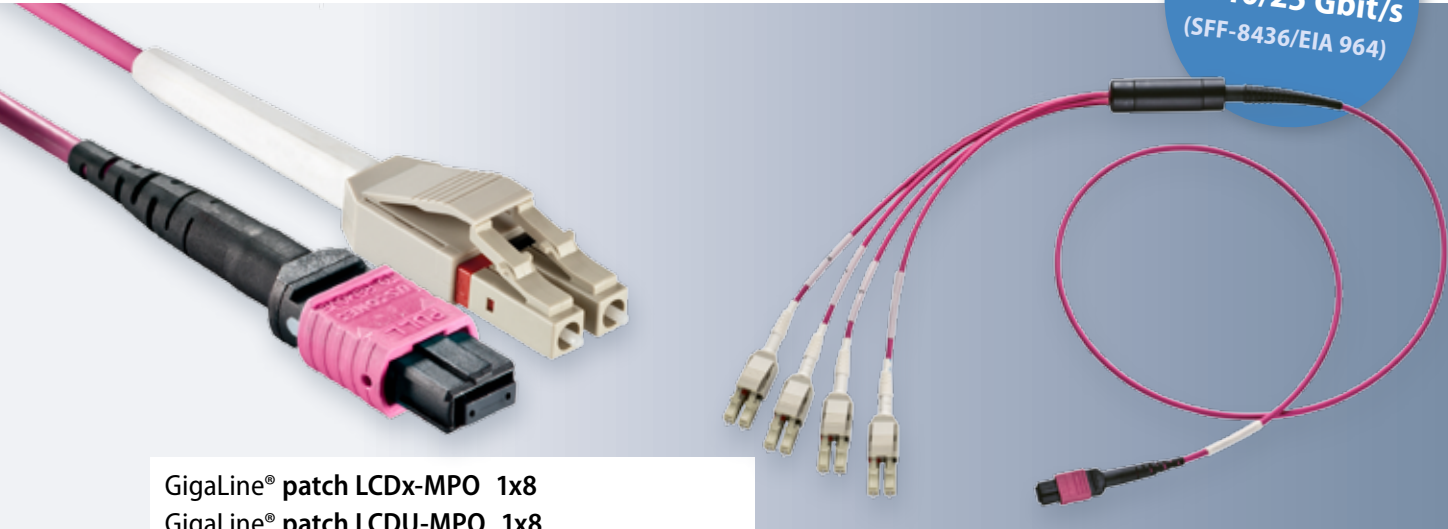
Article	Configuration	Category	Wiring	PU	Order no.
GigaLine® patch LC-MPO 1x12	6xLCDU/PC – 1xMPO/f APC	PL50	OS2	1 pc.	LKD 9SP1 2BB0 0xxx*
	6xLCDU – 1xMPO/f	PL50	OM3		LKD 9SP1 3AB0 0xxx*
	6xLCDU – 1xMPO/f	PL50	OM4		LKD 9SP1 4AB0 0xxx*
	6xLCDU/PC – 1xMPO/f APC	PL50	OS2		LKD 9SPX 2BB0 0xxx*
	6xLCDU – 1xMPO/f	PL50	OM3		LKD 9SPX 3AB0 0xxx*
	6xLCDU – 1xMPO/f	PL50	OM4		LKD 9SPX 4AB0 0xxx*

* xxx = length in dm (from connector to connector) Example: 1.5 m = 015

GigaLine® patch cord LC-MPO 1x8

4xLC Duplex or 4xLC Duplex Uniboot – 1xMPO/f

For data rates
4 x 10/25 Gbit/s
(SFF-8436/EIA 964)



GigaLine® patch LCDx-MPO 1x8
GigaLine® patch LCDU-MPO 1x8

Description

Ready-to use preassembled GigaLine® patch cord with a divider for 4 LC Duplex or LC Duplex uniboot connectors on one MPO female connector.

For the simple use of 10/25 Gbit/s duplex cabling for 4x10 Gbit/s applications in accordance with SFF-8436/EIA 964.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Type

Connection	on DLink module 8 x MPO ½ HP		
Cable type	GigaLine® I-F(ZN)H 1x8 OM3 bendable GigaLine® I-F(ZN)H 1x8 OM4 bendable		
Sheath colour	OM3	● aqua	
	OM4	● heather violet	

Optical characteristics

MPO insertion loss	0.10 dB (typ.)	
	0.30 dB (max.)	
MPO return loss	> 60 dB (SM APC)	> 30 dB (MM)
LC insertion loss	0.25 dB (typ.) (SM PC)	
	0.35 dB (max.) (SM PC)	
	0.25 dB (typ.) (MM)	
	0.40 dB (max.) (MM)	
LC return loss	> 50 dB (SM PC)	> 35 dB (MM)

Article	Configuration		Category	Wiring	PU	Order no.
GigaLine® patch LC-MPO 1x8 4xLC Duplex – 1xMPO/f	4xLCDx – 1xMPO/f APC	PL50	OS2	KBG00011 SFF-8436/EIA 964	1 pc.	LKD 9SPW 2BA2 0xxx*
	4xLCDx – 1xMPO/f	PL50	OM3			LKD 9SPW 3AA2 0xxx*
	4xLCDx – 1xMPO/f	PL50	OM4			LKD 9SPW 4AA2 0xxx*
GigaLine® patch LC-MPO 1x8 4xLC Duplex Uniboot – 1xMPO/f	4xLCDU – 1xMPO/f APC	PL50	OS2			LKD 9SPW 2BA0 0xxx*
	4xLCDU – 1xMPO/f	PL50	OM3			LKD 9SPW 3AA0 0xxx*
	4xLCDU – 1xMPO/f	PL50	OM4			LKD 9SPW 4AA0 0xxx*

* xxx = length in dm (from connector to connector) Example: 1.5 m = 015

GigaLine® patch cord 10/25 Gbit/s

LC Duplex Uniboot or LC Duplex Uniboot high density with release flap

Fig. 1
Patch cord fitted
with 2 x LC Duplex Uniboot

GigaLine® patch LCDU
GigaLine® patch LCDU HD

Description

Ready-to use preassembled GigaLine® MPO patch cord with LC Duplex Uniboot or LC Duplex Uniboot HD connectors (logically crossed). For cabling ≤25 Gbit/s (Duplex-fiber systems). Cables bendable in every direction, particularly space-saving in the patch cord area.

The LCDU HD connector is specially designed for panels with very high packing density. The 64 mm long integrated release flap enables the connectors to be pulled out even when the connectors are very densely packed.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

The release flap enables the connectors to be pulled out even with high packing densities

Fig. 2
Patch cord fitted
with 2 x LC Duplex Uniboot
high density with release flap

Type

Connection	to DCLink module, GigaLine® splice and trunk boxes		
Cable type	GigaLine® I-V(ZN)H 2 OS2 GigaLine® I-V(ZN)H 2 OM3 bendable GigaLine® I-V(ZN)H 2 OM4 bendable		
Sheath colour	OS2	●	yellow
	OM3	●	aqua
	OM4	●	heather violet

Optical characteristics

Insertion loss	0.25 dB (typ.)	0.35 dB (max.) (SM PC)
	0.20 dB (typ.)	0.40 dB (max.) (MM)
Return loss	> 50 dB (SM PC)	
	> 35 dB (MM)	

Fig.	Length	Article	Configuration	Order no.	Configuration	Order no.	Configuration	Order no.
1	1.0m	GigaLine® patch LCDU with 2 LC Duplex Uniboot connectors (logically crossed)	OM4 bendable LCDU – LCDU	LKD 9A11 0875 0000	OM3 bendable LCDU – LCDU	LKD 9A11 0866 0000	OS2 LCDU/PC – LCDU/PC	LKD 9A13 0713 0000
	2.0m			LKD 9A11 0877 0000		LKD 9A11 0868 0000		LKD 9A13 0715 0000
	3.0m			LKD 9A11 0879 0000		LKD 9A11 0870 0000		LKD 9A13 0717 0000
	5.0m			LKD 9A11 0880 0000		LKD 9A11 0871 0000		LKD 9A13 0718 0000
	10.0m			LKD 9A11 0882 0000		LKD 9A11 0873 0000		LKD 9A13 0xxx 0000

Fig.	Length	Article	Configuration	Order no.	Configuration	Order no.	Configuration	Order no.
2	1.0m	GigaLine® patch LCDU HD with 2 LC Duplex Uniboot HD connectors with release flap 64 mm (logically crossed)	OM4 bendable LCDU HD – LCDU HD	LKD 9A11 1796 0000	OM3 bendable LCDU HD – LCDU HD	LKD 9A11 1872 0000	OS2 bendable LCDU/PC HD – LCDU/PC HD	LKD 9A13 1614 0000
	2.0m			LKD 9A11 1797 0000		LKD 9A11 1873 0000		LKD 9A13 1615 0000
	3.0m			LKD 9A11 1798 0000		LKD 9A11 1874 0000		LKD 9A13 1616 0000
	5.0m			LKD 9A11 1870 0000		LKD 9A11 1875 0000		LKD 9A13 1617 0000
	10.0m			LKD 9A11 1871 0000		LKD 9A11 1876 0000		LKD 9A13 1618 0000

GigaLine® DCLink module LC Quad MPO

3x / 6x / 9xLC Quad couplings – 1x / 2x / 3xMPO/f

For data rates
6 x 10/25 Gbit/s
12 x 10/25 Gbit/s
18 x 10/25 Gbit/s

Fig. 1

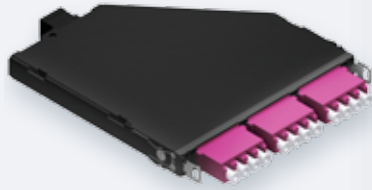


Fig. 2

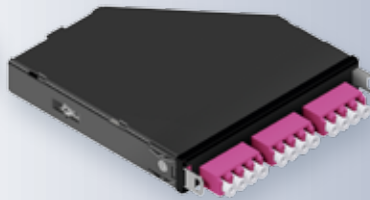


Fig. 3



Fig. 4



GigaLine® DCLink module 1/3 HP
GigaLine® DCLink module 1/2 HP
GigaLine® DCLink module 7 HP

Description

DCLink module 1/2 HP, fitted with LC Quad couplings at the front and MPO couplings at the rear.

For configuring transmission links with preassembled MPO trunk and MPO patch cords. For applications from 6 x 10 Gbit/s.

DCLink module variations

Configuration	Applications
3 x LC Quad couplings – 1 x MPOf APC	6 x 10/25 Gbit/s
6 x LC Quad couplings – 2 x MPOf APC	12 x 10/25 Gbit/s
9 x LC Quad couplings – 3 x MPOf APC	18 x 10/25 Gbit/s

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Wiring

1:1 or X-X

Both a 1:1 and a X-X module are required for the setting up of a link, as well as a MPO trunk 1 x 12 fiber type B.

Installation/fitting

Installation	tool-free with click-in technology possible from the front and rear
Fitting	DCLink module rack 1 RU or 3 RUs DCLink consolidation point

Optical characteristics

MPO insertion loss	0.10 dB (typ.)	0.30 dB (max.)
MPO return loss	> 30 dB (MM)	
LC insertion loss	0.25 dB (typ.) (SM PC)	
	0.35 dB (max.) (SM PC)	
	0.20 dB (typ.) (MM)	
	0.40 dB (max.) (MM)	
LC return loss	> 50 dB (SM PC)	> 35 dB (MM)

Fig.	Designation	Configuration	Cat.	Wiring	Order no.	Cat.	Wiring	Order no.
1	GigaLine® DCLink module 1/3 HP	3xLC/PC Quad – 1MPOf/APC	OS2	1:1 KBG00009	LKD 9SE0 0057 0000	OS2	X-X KBG00006	LKD 9SE0 0060 0000
		3xLC Quad – 1xMPOf	OM3		LKD 9SE0 0058 0000	OM3		LKD 9SE0 0061 0000
			OM4		LKD 9SE0 0059 0000	OM4		LKD 9SE0 0062 0000
2	GigaLine® DCLink module 1/2 HP	3xLC/PC Quad – 1MPOf/APC	OS2		LKD 9SE0 0012 0000	OS2		LKD 9SE0 0011 0000
		3xLC Quad – 1xMPOf	OM3		LKD 9SE0 0010 0000	OM3		LKD 9SE0 0009 0000
			OM4		LKD 9SE0 0002 0000	OM4		LKD 9SE0 0001 0000
3	GigaLine® DCLink module 7 HP	6xLC/PC Quad – 2MPOf/APC	OS2		LKD 9SE0 0021 0000	OS2		LKD 9SE0 0020 0000
		6xLC Quad – 2xMPOf	OM3		LKD 9SE0 0019 0000	OM3		LKD 9SE0 0018 0000
			OM4		LKD 9SE0 0026 0000	OM4		LKD 9SE0 0025 0000
4	GigaLine® DCLink module 7 HP	9xLC/PC Quad – 3MPOf/APC	OS2		LKD 9SE0 0063 0000	OS2		LKD 9SE0 0064 0000
		9xLC Quad – 3xMPOf	OM3		LKD 9SE0 0043 0000	OM3		LKD 9SE0 0042 0000
			OM4		LKD 9SE0 0045 0000	OM4		LKD 9SE0 0044 0000

GigaLine® DCLink Ready-to-use

ready-to-use link, comprising 2 LC Quad modules

For data rates
6 x 10/25 Gbit/s
 or
12 x 10/25 Gbit/s

Fig. 1
 ready-to-use link with
 2x½ HP / 3xLC Quad

Fig. 2
 ready-to-use link with
 2x7 HP / 6xLC Quad

GigaLine® DCLink Ready-to-use 2x½ HP / 3xLC Quad
 GigaLine® DCLink Ready-to-use 2x7 HP / 6xLC Quad

Description

Ready-to-use link fitted at both ends with 3 or 6 LC Quad couplings. A GigaLine® LC trunk cable connects the DCLink modules. Suitable for applications with 6 x 10/24 Gbit/s or 12 x 10/25 Gbit/s.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Wiring

1:1

Fitting

Tool-free with click-in technology in DCLink module racks and consolidation point housings.

Optical characteristics

Insertion loss	0.25 dB (typ.) (SM PC)/MM	
	0.40 dB (max.) (SM PC)/MM	
Return loss	> 65 dB (SM PC)	
	> 50 dB (SM PC)	> 35 dB (MM)

Article	Wiring	PU	Order no.
GigaLine® DCLink Ready-to-use 2x½ HP / 3xLC Quad	OS2	1 pc.	LKD 9SE7 0xxx 0000*
	OM3	1 pc.	LKD 9SE3 0xxx 0000*
	OM4	1 pc.	LKD 9SE5 0xxx 0000*
GigaLine® DCLink Ready-to-use 2x7 HP / 6xLC Quad	OS2	1 pc.	LKD 9SE8 0xxx 0000*
	OM3	1 pc.	LKD 9SE4 0xxx 0000*
	OM4	1 pc.	LKD 9SE6 0xxx 0000*

* xxx = length in m (from connector to connector) Example: 10 m = 0010

Other configuration options available.

GigaLine® DClink splice module

fitted with LC Quad couplings and LC pigtails

For data rates
12 x 10/25 Gbit/s
3 x 40 Gbit/s

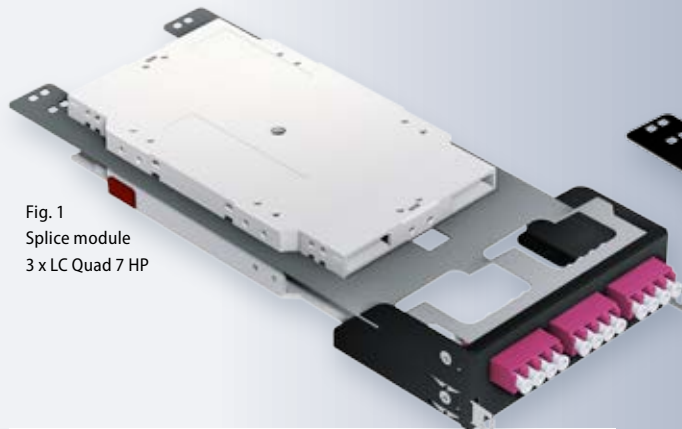


Fig. 1
Splice module
3 x LC Quad 7 HP

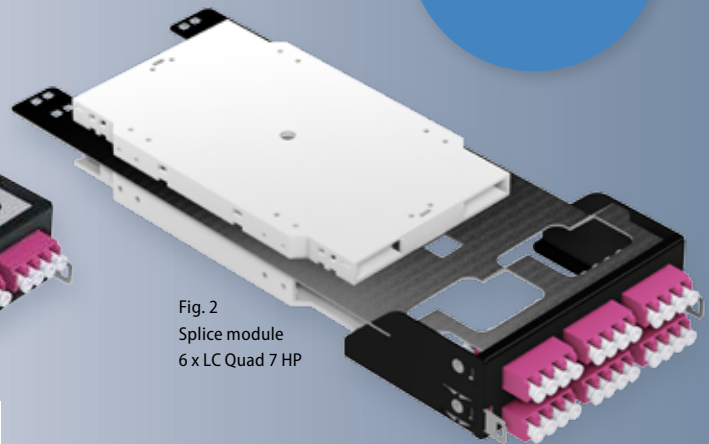


Fig. 2
Splice module
6 x LC Quad 7 HP

GigaLine® DClink splice module 3xLC Quad 7 HP
GigaLine® DClink splice module 6xLC Quad 7 HP

Description

Fitted with LC Quad couplings and LC pigtails for the configuration of transmission links with loose tube cables by splicing on location.

The buffered fiber pigtails are inserted, stripped and coloured according to the DIN IEC 60304 colour code ready for splicing for fast and secure installation.

Suitable for applications with 6 x or 12 x 10/25 Gbit/s.
or 1 x and 3 x 40 Gbit/s.

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Fitting

Tool-free with click-in technology in DClink module racks 1 RU or 3 RUs and consolidation point housings.

Construction/type

Housing	Sheet steel, colour galvanised
Colour	Jet black, RAL 9005
Support plate	Stainless steel
Fixation	Snap-in installation
Connector:	LC-PC Simplex, fully ceramic ferrule
Couplings	LC Quad, slotted, floating ceramic sleeve
Coupling colour	OS2 ● blue OM3 ● aqua OM4 ● heather violet
Dimension	35 x 106 x 275 mm (WxHxD)
Labelling	1–12

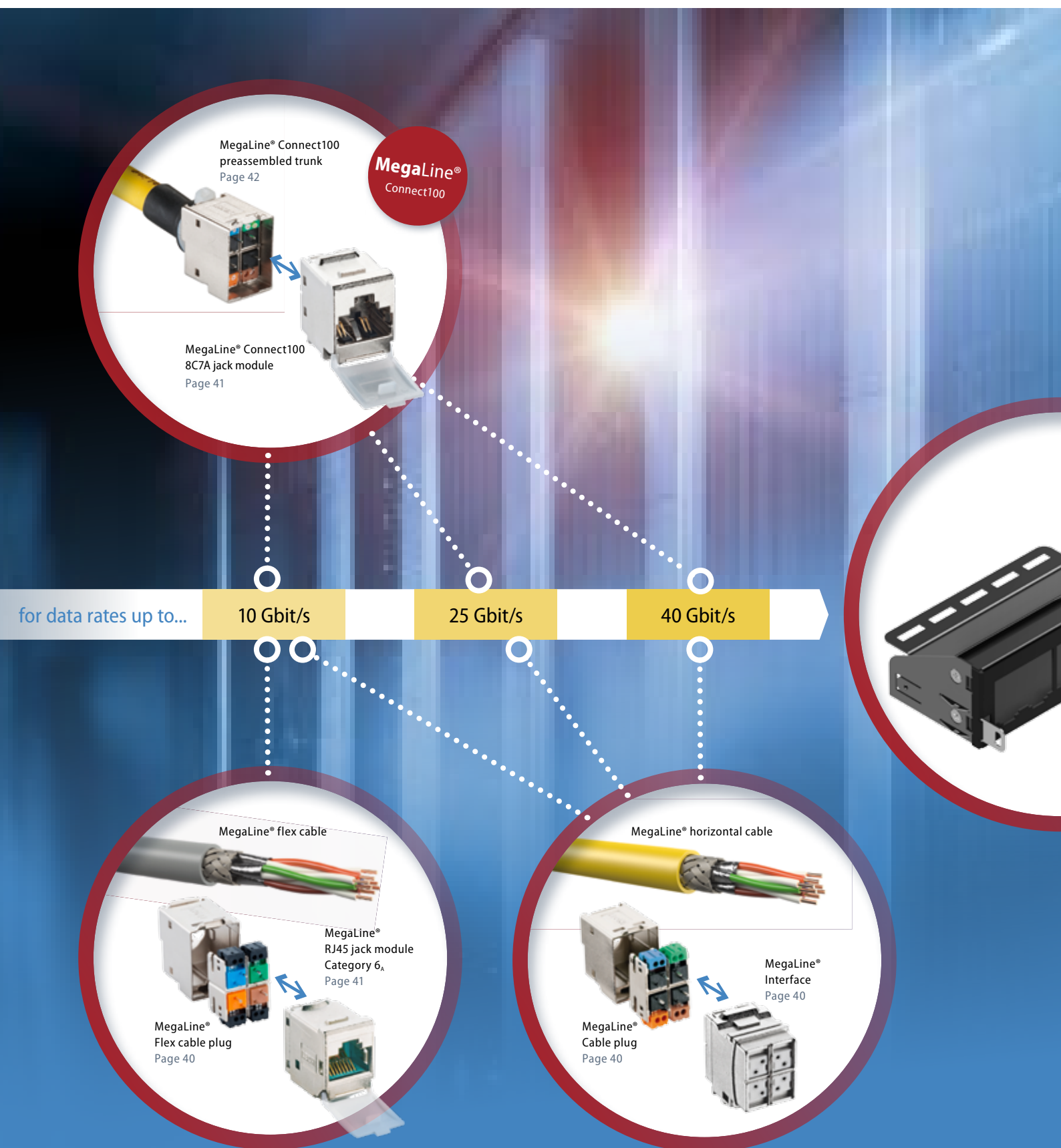
Optical characteristics

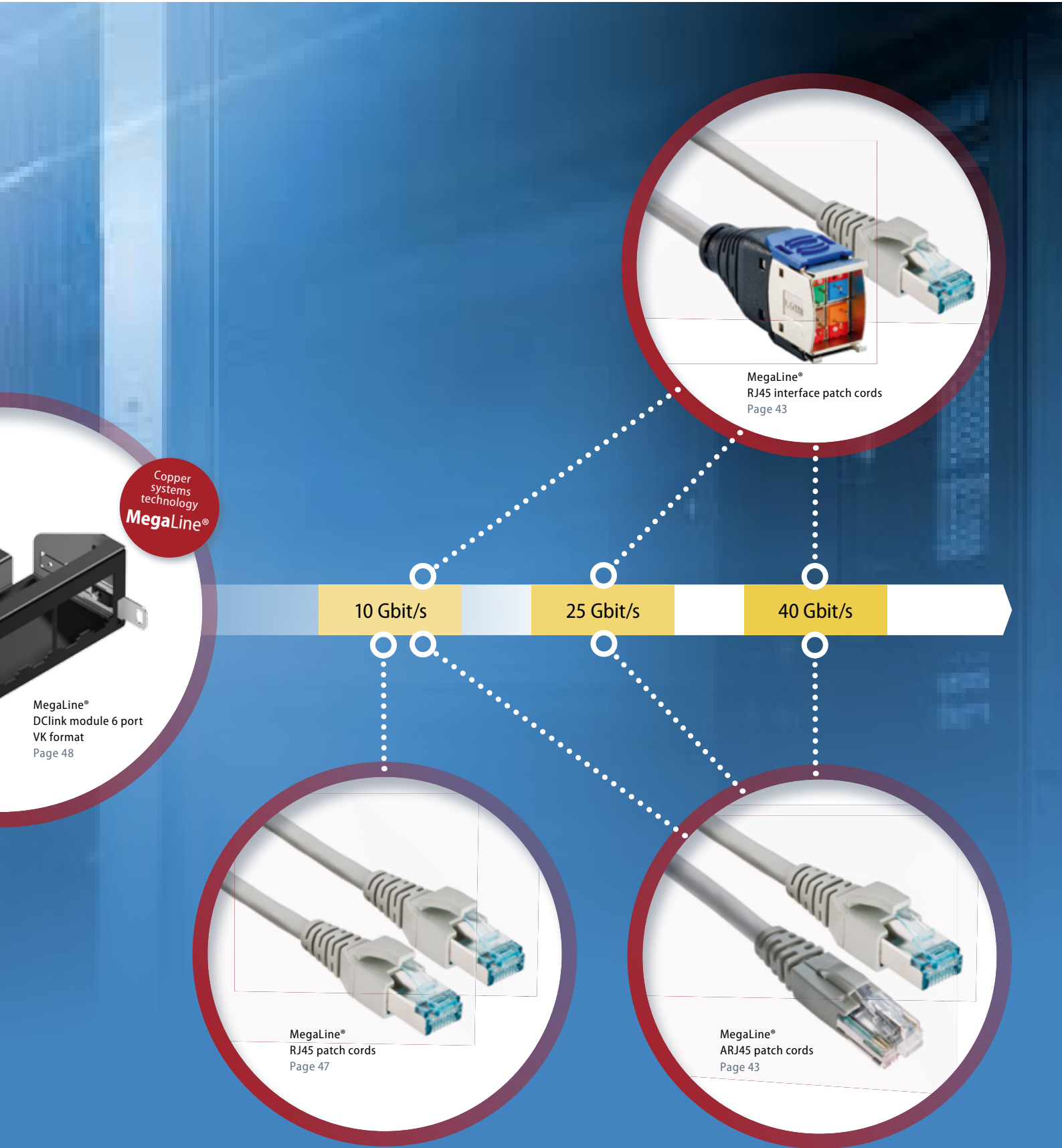
Insertion loss	0.25 dB (typ.)	0.35 dB (max.)	(SM)
	0.25 dB (typ.)	0.40 dB (max.)	(MM)
Return loss	> 50 dB (SM PC)	> 35 dB (MM)	

Article	Wiring	Coupling colour	Order no.
GigaLine® DClink Splice module 3xLC Quad 7 HP	OS2	● blue	LKD 9SEX 0008 0000
	OM3	● aqua	LKD 9SEX 0009 0000
	OM4	● heather violet	LKD 9SEX 0006 0000
GigaLine® DClink Splice module 6xLC Quad 7 HP	OS2	● blue	LKD 9SEX 0002 0000
	OM3	● aqua	LKD 9SEX 0001 0000
	OM4	● heather violet	LKD 9SEX 0003 0000

MegaLine® – The cabling system for 10 – 40 Gbit/s

System overview





MegaLine® Connect100 cable plug & interface

Category 7_A



Cable plug
Cat. 7_A

Flex cable plug
Cat. 7_A



MegaLine® Connect100 cable plug Cat. 7_A
MegaLine® Connect100 flex cable plug Cat. 7_A

MegaLine® Connect100 interface

Description

Interface to the individually interchangeable MegaLine® Connect100 jack module. The cable plug enables generic transmission links far exceeding the requirements for Class F_A right up to Channel class II to be achieved. The mating face can also be identified later without any additional installation effort.

- various mating faces available
- simple and fast assembly

Type

Material	PC; die-cast zinc, nickel-plated
Wiring	4 pairs via punchdown method
Strain relief	via cable ties
Shielding	extensive 360° shield connection
Electrical values	Class F _A /Category 7 _A /up to 2 GHz (Channel class II)

Electrical characteristics

Contact resistance	≤ 20 Ω
Isolation resistance	≥ 500 MΩ between contacts
Proof voltage	≥ 1000 V DC/AC contact – contact
	≥ 1500 V DC/AC contact – shielding
Max. current	1.25 A at 50 °C

Standards

- ISO/IEC 11801
- EN 50173-1
- IEEE 802.3at (PoE+)

Description

For transmitting analogue and digital voice, image and data signals. The performance features correspond to category 7_A (up to 2 GHz).

Type

Material	Full metal; die-cast zinc, nickel-plated
Installation dimensions	acc. to the installation dimensions of the RJ45 jack module and therefore interchangeable
Wiring	4 pairs via cable plug
Connection	MegaLine® Connect100 interface

Standards

- ISO/IEC 11801
- EN 50173-1
- IEEE 802.3af/at (PoE/PoE+)

Article	Category	Order no.
MegaLine® Connect100 Interface	Category 7 _A (up to 2 GHz)	LKD 9A90 2050 0000

Article	Category	Order no.
MegaLine® Connect100 Cable plugs (AWG 24-22 solid)	Category 7 _A (up to 2 GHz)	LKD 9A90 2330 0000
MegaLine® Connect100 Cable plugs flex (AWG 27-26 flex)		LKD 9A90 2331 0000

MegaLine® Connect100 jack modules

Category 7_A/6_A

Jack module
Cat. 7_A
(up to 2 GHz)



MegaLine® Connect100 jack module 8C7A

Description

For transmitting analogue and digital voice, image and data signals. The performance features correspond to category 7_A (up to 2 GHz).

Type

Material	Full metal; die-cast zinc, nickel-plated
Installation dimensions	according to the installation dimensions of the RJ45 jack module and therefore interchangeable
Wiring	4 pairs via cable plug
Connection	Jack 8C7A (ARJ45)

Standards

- ISO/IEC 11801
- EN 50173-1
- EN 61076-3-110
- IEEE 802.3af/at (PoE/PoE+)

Article	Category	Order no.
MegaLine® Connect100 Jack module 8C7A – black	Category 7 _A (up to 2 GHz)	LKD 9A90 2020 0000

Jack module
Cat. 6_A



MegaLine® Connect100 jack module RJ45

Description

For transmitting analogue and digital voice, image and data signals. The performance features correspond to category 6_A up to 500 MHz.

Type

Material	Full metal; die-cast zinc, nickel-plated
Installation dimensions	according to the installation dimensions of the 8C7A jack module and therefore interchangeable
Wiring	4 pairs via cable plug
Connection	Jack RJ45

Standards

- ISO/IEC 11801
- EN 50173-1
- IEC 60603-7-51
- IEEE 802.3af/at (PoE/PoE+)

Article	Category	Order no.
MegaLine® Connect100 Jack module RJ45 – aqua	Category 6 _A	LKD 9A90 2010 0000

MegaLine® Connect100 trunk cable

preassembled trunk or multi-trunk, MegaLine® Connect100 cable plug cat. 7_A



MegaLine® Connect100 trunk cable Cat. 7_A

Description

The trunk cable is based on a G20 S/F data cable – preassembled at both ends with MegaLine® Connect100 cable plugs Cat 7_A. Thanks to its high quality components, the preassembled cable fulfils the requirements for permanent links (**type > 5 m, cat. 7_A module**) of Class F_A acc. to ISO/IEC 11801 and EN 50173 for 10 Gigabit Ethernet as well as Channel (class II) according to the current draft of ISO/IEC 11801-99-1.

Channel class II

- Recommended minimum configuration:
5 m horizontal cable and 2 m patch cord each
- Maximum configuration:
26 m horizontal cable and 2 m patch cord each at both ends.

Type

Cables	G20 S/F (4 x 2 x AWG 22/1) (Order no. LKD 7KS8 0020 0000)
Side A / side B	MegaLine® Connect100 cable plug cat. 7 _A

Standards

- ISO/IEC 11801
- EN 50173-1
- IEEE 802.3at (PoE+)

Article	Length*	Order no.
MegaLine® Connect100 trunk cable cat. 7 _A	10.0 m	LKD 9A06 1782 0000
	15.0 m	LKD 9A06 1820 0000
	20.0 m	LKD 9A06 1783 0000
	30.0 m	LKD 9A06 1821 0000
	40.0 m	LKD 9A06 1822 0000
	50.0 m	LKD 9A06 1823 0000

* standard lengths, other lengths and types of cable
(also preassembled at one end) on request

MegaLine® Connect100 multi-trunk cable Cat. 7_A

Description

The trunk cable is based on 12 G20 S/F data cables bundled in a woven tube – preassembled at both ends with MegaLine® Connect100 cable plugs cat 7_A. Thanks to its high quality components, the preassembled cable fulfils the requirements for permanent links (**type > 5 m, cat. 7_A module**) of Class F_A acc. to ISO/IEC 11801 and EN 50173 for 10 Gigabit Ethernet as well as Channel (class II) according to the current draft of ISO/IEC 11801-99-1.

Channel class II

- Recommended minimum configuration:
5 m horizontal cable and 2 m patch cord each
- Maximum configuration:
26 m horizontal cable and 2 m patch cord each at both ends.

Type

Cables	12 x G20 S/F (4 x 2 x AWG 22/1) (Order no.: LKD 7KS8 0020 0000)
Side A / side B	MegaLine® Connect100 cable plug cat. 7 _A

Standards

- ISO/IEC 11801
- EN 50173-1
- IEEE 802.3at (PoE+)

Article	Length*	Order no.
MegaLine® Connect100 multi-trunk cable cat. 7 _A	10.0 m	LKD 9A06 2580 0000
	15.0 m	LKD 9A06 2581 0000
	20.0 m	LKD 9A06 2582 0000

* standard lengths, other lengths and types of cable
(also preassembled at one end) on request

MegaLine® patch cord ARJ45™

shielded, with grey moulded boots

MegaLine® patch cord interface connector

shielded, with grey/black moulded boots



Wiring
ARJ45-ARJ45

Wiring
ARJ45-RJ45

MegaLine® patch ARJ45

Description

The patch cord and connection cable is equipped with ARJ45 or RJ45 plugs as required.

Standards

ISO/IEC 11801 / EN50173

RoHS compliant with 2011/65/EU

Note

Patch cord RJ45 see page 47

MegaLine® patch RJ45 – interface connector

Description

The patch cord and connection cable is equipped with interface or RJ45 plugs as required.

Standards

ISO/IEC 11801 / EN50173

RoHS compliant with 2011/65/EU

Article	Length*	Order no.
MegaLine® 7AFA ARJ45	1.0 m	LKD 9A08 0134 0000
	2.0 m	LKD 9A08 0135 0000
	3.0 m	LKD 9A08 0136 0000
	5.0 m	LKD 9A08 0137 0000
MegaLine® patch 6AEA ARJ45-RJ45	1.0 m	LKD 9A08 0104 0000
	2.0 m	LKD 9A08 0105 0000
	3.0 m	LKD 9A08 0106 0000
	5.0 m	LKD 9A08 0107 0000

* other lengths on request

Article	Length*	Order no.
MegaLine® 6AEA RJ45 – MC100 interface	2.0 m	LKD 9A06 2102 0000
MegaLine® 7AFA MC100 interface – MC100 interface	2.0 m	LKD 9A06 2103 0000

* other lengths on request

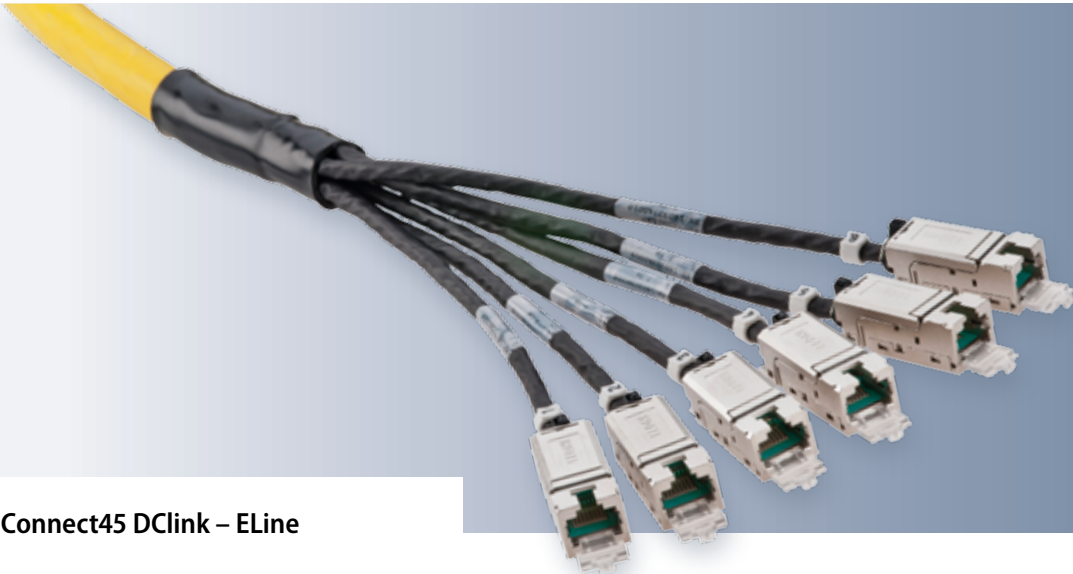
MegaLine® – The cabling system for up to 10 Gbit/s

System overview



MegaLine® Connect45 DLink – ELine

pre-assembled at both ends with 6 MegaLine® Connect45 jacks



MegaLine® Connect45 DLink – ELine

Description

The MegaLine® Connect45 trunk cable is based on a 24-pair data cable – preassembled at both ends with 6 MegaLine® Connect45 jacks.

The individually shielded pairs, which have no additional sheath, are bundled together in one joint, outer sheath and are thus easier to install due to the small diameter.

Thanks to its high quality components, the preassembled cable fulfils the requirements for permanent links (1–50 m) of Class E_A in accordance with ISO/IEC 11801 Amendment 2 for 10 Gigabit Ethernet (in combination with a CP cable: CP link >10 m).

Type

Cables	DLink 24 P (6 x 4 x 2 x AWG 26/1) Ø 16 mm
Side A / side B	each with 6 MegaLine® Connect45 ELine cat. 6 _A
Marking	ISO/IEC 12 number clips (each side marking 1–6)

Article	Length*	Order no.
MegaLine® Connect45 DLink – ELine	5 m	LKD 9A06 xxxx 0000
	10 m	LKD 9A06 xxxx 0000
	15 m	LKD 9A06 xxxx 0000
	30 m	LKD 9A06 xxxx 0000
	50 m	LKD 9A06 xxxx 0000

* other lengths on request

MegaLine® Connect45 trunk cable

preassembled single cable with MegaLine® Connect45 jack modules cat. 6_A

Jack module cat. 6_A
Aqua identification

MegaLine® Connect45 trunk Cat. 6_A module

Description

The trunk cable is based on a F6-90 S/F data cable – preassembled at both ends with MegaLine® Connect45 jacks.

Thanks to its high quality components, the preassembled cable fulfils the requirements for permanent links (>1 m) of Class E_A in accordance with ISO/IEC 11801 and EN 50173 for 10 Gigabit Ethernet.

The length specifications relate to the 2-connector model.

Standards

- ISO/IEC 11801
- EN 50173-1
- IEC60603-7-51 (cat. 6_A)

Construction – jack modules VK

- Cable F6-90 S/F (4 x 2 x AWG23/1)
- Side A / side B MegaLine® Connect45 cat. 6_A (ISO/IEC)
(order no.: LKD 9A50 2010 0000)

Construction – Keystone jack modules

- Cable F6-90 S/F (4 x 2 x AWG23/1)
- Side A / side B MegaLine® Connect45 cat. 6_A (ISO/IEC)
(order no.: LKD 9A50 1010 0000)

Construction – ELine jack modules

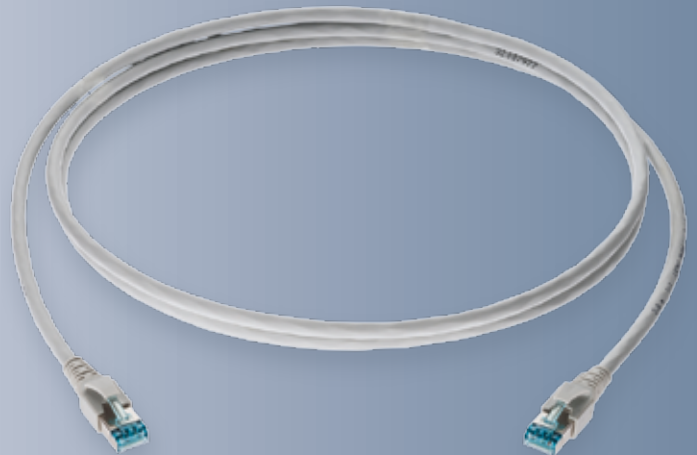
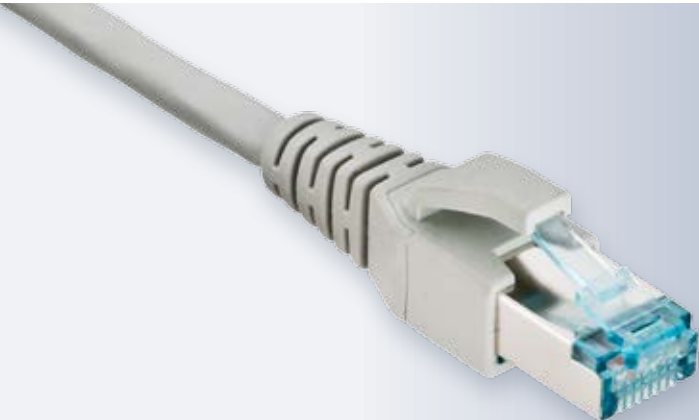
- Cable F6-90 S/F (4 x 2 x AWG23/1)
- Side A / side B MegaLine® Connect45 cat. 6_A (ISO/IEC)
(order no.: LKD 9A50 5010 0000)

Article	Modules	Length*	Jack module format VK	Jack module format Keystone	Jack module format ELine
MegaLine® Connect45 trunk	Category 6 _A module	5.0 m	LKD 9A06 1173 0000	LKD 9A06 1132 0000	LKD 9A06 1447 0000
		10.0 m	LKD 9A06 1174 0000	LKD 9A06 1133 0000	LKD 9A06 1448 0000
		15.0 m	LKD 9A06 1175 0000	LKD 9A06 1134 0000	LKD 9A06 1449 0000
		30.0 m	LKD 9A06 1176 0000	LKD 9A06 1135 0000	LKD 9A06 1450 0000
		90.0 m	LKD 9A06 1177 0000	LKD 9A06 1136 0000	LKD 9A06 1451 0000

* standard/other lengths on request

MegaLine® patch cord RJ45/RJ45 cat. 6_A/500 MHz

shielded, cat. 6_A Class E_A with coloured moulded boots



MegaLine® patch 6AEA-RJ45

Description

The pair shielding and the high-coverage copper braiding as overall shielding ensure excellent NEXT and return loss values. The cable type used is suitable for transmission rates of up to 500 MHz.

The patch and connection cables are fitted at both ends with a shielded RJ45 plug and an overmoulded boot.

Applications

Installation cable for use in structured cabling systems in accordance with ISO/IEC 11801 und EN 50173.-x.

Very well-suited for all applications up to class E_A (video, data, telephony) >10 GbE acc. to IEEE 802.3 an, cable sharing, VoIP, PoE.

Properties / construction

EMC	Combined shielding (PiMf + braiding)
RJ45 plug	EN 60603-7
Electrical values	Category 6 _A Class E _A
Assignment	1:1
Standards	ISO/IEC 11801/ EN50173
	RoHS compliant with 2011/65/EU

Fire performance

Smoke density	IEC 61034
Halogen-free	IEC 60754-2
Flame retardance	IEC 60332-1-2

Length*	Article	Order no.				
		Grey (LSOH)	Blue (LSOH)	Green (LSOH)	Yellow (LSOH)	Red (LSOH)
0.5	MegaLine® Patch 6AEA-RJ45	LKD 9AA2 3020 0000	LKD 9AA2 3030 0000	LKD 9AA2 3040 0000	LKD 9AA2 3050 0000	LKD 9AA2 3060 0000
1.0		LKD 9AA2 3021 0000	LKD 9AA2 3031 0000	LKD 9AA2 3041 0000	LKD 9AA2 3051 0000	LKD 9AA2 3061 0000
1.5		LKD 9AA2 3022 0000	LKD 9AA2 3032 0000	LKD 9AA2 3042 0000	LKD 9AA2 3052 0000	LKD 9AA2 3062 0000
2.0		LKD 9AA2 3023 0000	LKD 9AA2 3033 0000	LKD 9AA2 3043 0000	LKD 9AA2 3053 0000	LKD 9AA2 3063 0000
2.5		LKD 9AA2 3024 0000	LKD 9AA2 3034 0000	LKD 9AA2 3044 0000	LKD 9AA2 3054 0000	LKD 9AA2 3064 0000
3.0		LKD 9AA2 3025 0000	LKD 9AA2 3035 0000	LKD 9AA2 3045 0000	LKD 9AA2 3055 0000	LKD 9AA2 3065 0000
4.0		LKD 9AA2 3026 0000	LKD 9AA2 3036 0000	LKD 9AA2 3046 0000	LKD 9AA2 3056 0000	LKD 9AA2 3066 0000
5.0		LKD 9AA2 3027 0000	LKD 9AA2 3037 0000	LKD 9AA2 3047 0000	LKD 9AA2 3057 0000	LKD 9AA2 3067 0000
7.5		LKD 9AA2 3028 0000	LKD 9AA2 3038 0000	LKD 9AA2 3048 0000	LKD 9AA2 3058 0000	LKD 9AA2 3068 0000
10.0		LKD 9AA2 3029 0000	LKD 9AA2 3039 0000	LKD 9AA2 3049 0000	LKD 9AA2 3059 0000	LKD 9AA2 3069 0000

* other lengths on request

MegaLine® DCLink module 6 port

VK format / Keystone format / ELine format

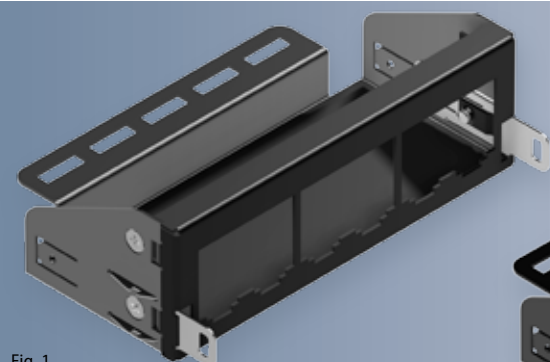


Fig. 1
DCLink module 6 port
VK format

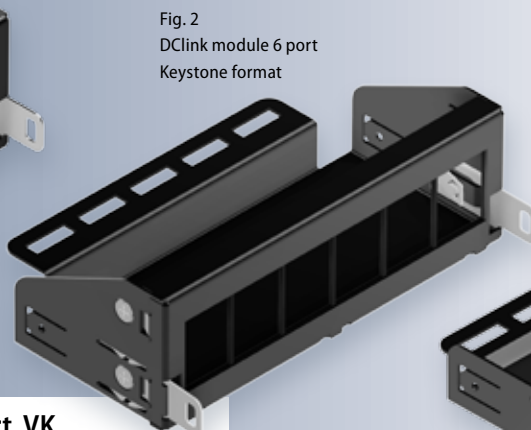


Fig. 2
DCLink module 6 port
Keystone format

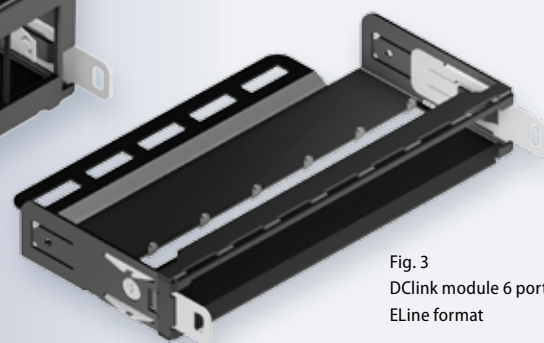


Fig. 3
DCLink module 6 port
ELine format

GigaLine® DCLink module 6 port VK
GigaLine® DCLink module 6 port Keystone
GigaLine® DCLink module 6 port ELine

Description

With 6 port/fold openings (depending on module version in various formats) for the configuration of transmission links with preassembled MegaLine® trunk and patch cables.

Module versions

Openings	Compatibility
Module 6 port VK	MegaLine® Connect45 VK format
Module 6 port Keystone	MegaLine® Connect45 Keystone format
Module 6 port ELine	MegaLine® Connect45 ELine format

Applications

For cabling in data centers and office applications in accordance with ISO/IEC 11801 and EN 50173.

Fitting/installation/cabling

Fitting	DCLink module rack 1 RU or 3 RUs DCLink consolidation point
Installation	tool-free with click-in technology possible from the front and rear
Cabling	using MegaLine® trunk and patch cables

Housing/type

Housing	Sheet steel, black galvanised
Colour	Jet black, RAL 9005
Front	6 openings
Dimension	Module version VK / Keystone 105 x 35 x 65 mm (WxHxD) Module version ELine 105 x 17 x 65 mm (WxHxD)
Labelling	1–6 (only for the module versions VK and Keystone)

Fig.	Article	Compatibility	PU	Order no.
1	GigaLine® DCLink module 6 port VK	MegaLine® Connect45 VK format	2 pcs.	LKD 9500 0013 0000
2	GigaLine® DCLink module 6 port Keystone	MegaLine® Connect45 Keystone format	2 pcs.	LKD 9500 0014 0000
3	GigaLine® DCLink module 6 port ELine	MegaLine® Connect45 ELine format	2 pcs.	LKD 9500 0012 0000

Notes

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

LEONI news

Additional catalogues for MegaLine® and GigaLine® connection systems are available online.

With current information services like the LEONI newsletter, we keep you updated on the latest developments at LEONI and in the market.

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