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 $\square$ semone DATA SOLUTIONS PRODUCI GUJDE 2020/2021

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## DATWYLER

Datwyler Cabling Solutions is an international company with its headquarters in Switzerland and affiliates in Europe, the Middle East and Asia. Datwyler enables organizations around the world to run their IT infrastructures seamlessly and scale their business with ease. The well-established company which was founded more than 100 years ago has successfully acted as a supplier of innovative system solutions and products for data centres, fibre networks, and intelligent buildings as well as the lead or main contractor who covers the whole value chain in these markets.

## MILESTONES

1915 Adolf Dätwyler founded the company and began producing electrical conductors using aluminium.

1926 The production of telephone cables began.

1944 The production of high-frequency cables began.

1973 Kaved Ltd. was acquired. The value chain was extended by adding cable harnessing. Datwyler produced the first flat cable for lifts with up to 400 metre shaft height.

1986 The production of fibre optic cables began.

1987 "Uninet" (today: "Datwyler CU") data cables and the future-proof concept for structured building cabling were introduced.

1991 Datwyler fire safety cables successfully passed E90 system circuit integrity testing as per DIN 4102-12.

1998 Datwyler entered the Chinese market.

2002 Optofil Safety (today:"Datwyler FO Universal ... Safety") became the first metal-free fibre optic cable with E30 circuit integrity as per DIN 4102-12.

2005 Datwyler significantly expanded its international distribution network.

2008 Datwyler introduced pre-assembled trunk (multiple) cables and high-density systems that specifically address the demand for efficient data centre cabling.

2009 Datwyler offered complete turnkey solutions for data networks, data centres and fibre networks.

2010 Datwyler became full service main contractor for several FTTx projects in Switzerland.

2011 Datwyler opened a branch in Dubai.

2012 Introduction of the "Datwyler Data Centre Solution" (DCS). Renaming to "Datwyler Cabling Solutions AG" in Switzerland (1 Nov 2012).

2013 Acquisition by Pema Holding AG.
The first Cat. 8 data cable "CU 8203 4P" was introduced.

2015 Datwyler introduced "FO Outdoor wbKT Micro Combi", the first mini hybrid cable for NGN and NGA networks.

2016 The Cat. 7 data cable "CU 7000 4P Home" with a diameter of only 5.8 mm and the "FO Outdoor wbKT S-Micro $2 \times 24^{\prime \prime}$ with a diameter of only 10.4 mm were introduced.

2019 Datwyler introduced the "High-Density Data Centre Solution" (HD-DCS) and its Micro and Mini Data Centres.


## QUALITY SERVICE

At Datwyler, we keep all the major components for our system solutions in stock at all times, and can therefore guarantee fast delivery. We can answer any query promptly and efficiently, with careful consideration towards the current and future requirements of our clients. Our engineering teams deliver projects on time and within budget, and to the correct specification.

## STATE OF THE ART TECHNOLOGY

Datwyler invests year-on-year in improved material and process technologies, production equipment and test methods. This is why our system solutions regularly exceed industry expectations. We set new standards.

## QUALITY A A CONSTANT MISSION WITHOUT COMPROMISE

In practice, the important functions that our system solutions provide, demand the highest levels of safety and reliability. We therefore test and validate every product and system solution using the most stringent quality-control. Quality without compromise is a constant expectation for all of our employees. It is also our guarantee to our customers.

## QUALITY ASSURANGE

Our management system is ISO 9001, ISO 14001 and BS 18001 certified.


## WE SURPASS ALI INDUSTRY STANDARDS

Within the development phase of every product, Datwyler defines quality specifications that go beyond the usual industry standards. In addition to general quality-control inspections, our products undergo application-specific testing. With the help of qualified specialists, Datwyler has developed a series of sophisticated test machines specifically for this purpose. We use these to measure every type of cable and every system component against our own rigorous quality specifications. Such extreme testing procedures ensure that all Datwyler's systems and solutions will maintain their integrity, even under the most demanding conditions.

## TURN.KEY PROJECTS

Datwyler serves as your single global contact for IT infrastructure projects. We will ensure quality standards adhered to, and that projects are delivered on time and on budget. Through our certified partner network we are able to efficiently roll-out complete solutions and multi-site projects all over the world. Our transparent project reporting provides our clients with the ability to know the exact status of the project at any time. Comprehensive documentation further ensures the quality of the work.

Material logistics plays an important part in multi-site projects.
Together with our logistics partners we ensure that all materials are on-site precisely on schedule, in order that projects can be delivered on time.

## SERVICES

Datwyler offers a comprehensive range of services that cover the whole life-cycle of your cabling and IT infrastructure solution. These services that we offer in close cooperation with our certified partners include consulting, engineering, implementation and maintenance:


## THE EUROPPEAN CONSTRUGTION PRODUCTS REGULAION (CPR) EU 305/2011

Since 1st July 2017 cable manufacturers have been obliged to test power cables and lines as well as control and communication cables permanently incorporated in construction works (fixed installation) for reaction to fire performance requirements in accordance with the new harmonised Standard EN 50575, and to classify and market them with a Declaration of Performances (DoP). The import of products from countries outside Europe makes the importer - according to the CPR - a manufacturer who is responsible for the correct product certification and for putting it on the market.

The EU Commission has approved European test laboratories as notified bodies to test and evaluate the reaction to fire performance of cables for this additional task. The product characteristics of a "construction product" cable must be determined and confirmed by a notified body. By the same token the manufacturer's production facility must be subject to ongoing production control by the notified body.

Following product assessment and production monitoring the notified body authorises the manufacturer to deliver his products with the CE mark and to issue a DoP.

The following criteria are evaluated when test-
ing is carried out in compliance with EN 50575 :

- Heat of combustion
- Thermal release
- Vertical flame propagation
- Smoke generation
- Flaming droplets/particles of plastics materials which can contribute to fire propagation
- Acidity

The results of this test should be assigned to the following seven cable classes (Euroclasses):

| Main class | Description |
| :---: | :--- |
| $\mathbf{A}_{\mathbf{c a}}$ | Non-flammable, no contribution to fire; products such as mineral-insulated cables and lines |
| $\mathbf{B 1}_{\mathbf{c a}}$ | Low flammability, very limited contribution to fire |
| $\mathbf{B 2}_{\mathbf{c a}} \mathbf{C}_{\mathbf{c a}}$ | Very limited or limited contribution to fire; cables/lines without continuous flame propagation; limited fire development <br> and thermal release rate |
| $\mathbf{D}_{\mathbf{c a}}$ | Acceptable contribution to fire; products with continuous fire propagation; moderate fire development and thermal <br> release rate |
| $\mathbf{E}_{\mathbf{c a}}$ | Normally flammable; cables and lines with acceptable fire behaviour which have flame-retardant characteristics when <br> exposed to a small pilot flame |
| $\mathbf{F}_{\mathbf{c a}}$ | Easily flammable; this cable can ignite when exposed to a small flame |

Additional classifications are to be determined for classes $B 1_{\text {ca }}$ to $D_{c a}$. The fire-critical parameters have been identified as smoke generation, flaming droplets of cable material and the acidity of the combustion gases:

## Additional classes for smoke generation in cables:

| s1 | slight smoke generation |
| :---: | :--- |
| s1a | s1 with visibility over $80 \%$ |
| s1b | s1 with visibility between $60 \%$ to $80 \%$ |
| s2 | moderate smoke generation |
| s3 | severe smoke generation |


| Additional classes for flaming droplets/particles in cables: |  |
| :---: | :--- |
| d0 | no flaming droplets |
| d1 | short-lived flaming droplets |
| d2 | persistent flaming droplets |


| Additional classes for acidity in cables: |  |
| :---: | :--- |
| a1 | slightly corrosive flue gases |
| a2 | moderately corrosive flue gases |
| a3 | severely corrosive flue gases |

You will find up-to-date information on the classification of our relevant cables and lines in the product data sheets. Declarations of Performance have been provided with the delivery documentation since 1st July 2017. If a copy of the Declaration of Performances is needed it can be requested via the Datwyler contact address of the relevant country. Declarations of Performance are also available for downloading on the Datwyler website.

The European Construction Products Regulation (CPR) regulates the placing of construction products on the European market - but not their use in construction work. The selection and use of construction products are the responsibility of the European Member States. The requirements governing which fire protection class is specified for which location therefore differ from country to country. Installers and specialist planners must check and comply with the relevant local regulations.

In many countries there were still no mandatory requirements governing the use of fire classes in buildings at 1st July 2017. Where there are still no minimum mandatory legal requirements, there are generally recommendations by the CPR professional associations for application in the relevant countries.

Cables without "CPR classification" may still be installed and used providing there are no national requirements relating to the use of classified cables under Construction Products Regulation. If there already are national requirements relating to application, the use of such cables should be clarified with the authorities responsible.

Cables covered by the CPR but placed on the European market before 1st July 2017 and bearing the CE mark in accordance with the Low Voltage Directive (LVD) may continue to be sold on for an indefinite period.

Number
Prod

## EXTENDED ARTIOLE NUMBERS

In 2017, Datwyler began to gradually extend the article numbers of its cables and other products from 6 to 10 digits. This extension provides our customers with important additional information. The first 6 digits show the "master number" of the articles.

The 9th letter indicates the main Euroclass ("reaction to fire" according to the CPR, European Construction Products Regulation No. $305 / 2011$ ). The 8th digit stands for the additional classes. The 10th letter shows the packaging (cable length or packing unit).

## The key to the 10 -digit article number:



As a result of this extension some article numbers have been integrated into the new ones and some totally replaced.

## Note:

Our cables are not available in any CPR classification and any length or packing unit (PU) mentioned above. Please refer to our website for the different versions on offer. Here you can also find the Declarations of Performances (DoP) as PDF files for download.

## ROHS - WEEE - REAOH

## STATEMENT FROM DATWYLER

As an environmentally conscious manufacturer and supplier of cabling solutions it is our concern not to use any environmentally harmful substances in our products.

Based on current information, the hereinmentioned regulations and directives for substances are fully complied with wherever applicable.

## ROHS

DIRECTIVE 2011/65/EU
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment

## DELEGATED DIREGTIVE (EU) 2015/863

## OF THE COMMISSION

of 31 March 2015 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council as regards the list of restricted substances

## WEEE

DIRECTIVE 2012/19/EU
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012
on waste electrical and electronic equipment (WEEE)

## REAOH

REGULATION (EC) No 1907/2006
OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006
concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

## - migro and min dait Gentres



## Gutting edge solutions for small and decentralised

## data centres

Our world is becoming increasingly digital, interlinked and intelligent. IoT, automation, 5G, robotics and artificial intelligence are opening up many new applications and business models.

To capitalise the opportunities which come with digitalisation, your organisation must rely on a smart and strategic IT infrastructure.

The amount of data produced will continue to grow exponentially. These data volumes have to be processed close to their source (Edge Computing) due to, among other factors, efficiency and latency times. A lot of mini and micro data centres are needed to do this.

Datwyler is a global player that helps organizations to stay at the forefront of progress, elevating their core business. While you focus on developing your business, we take care of your data centre infrastructure - with a comprehensive of customised product solutions and one-stop service solutions tailored to your needs.

## MICRO AND MIN DATACENTRE

## DATWYLER MICRO DATA CENTRE

In a compact 42U rack Datwyler's Micro Data Centre contains a fully preassembled plug-and-play IT infrastructure solution; including a power distribution unit, UPS, cooling system, fire suppression system (optional), air gap sealing and environment monitoring system. It can be deployed within a few hours. The infrastructure can be customised according to customer needs and requirements.

Datwyler's Micro Data Centre is designed for small data centres and applications such as edge computing, computing node in remote and branch offices, floor distributor (FD) and "smart facilities" deploying loT devices and running Artificial Intelligence (Al), Augmented Reality (AR), Virtual Reality (VR) and automation.

power failures and disruptions
Ensures optimum environment
(product may differ from illustration)

| Specifications | MDC 100 | MDC 200 | MDC 300 |
| :---: | :---: | :---: | :---: |
| Height units | 42 U | 42 U | 42 U |
| Available space | 42 U | 38 U | 30 U |
| Dimensions (HxWxD) | $2200 \times 800 \times 800 \mathrm{~mm}$ | $2200 \times 800 \times 1100 \mathrm{~mm}$ | $2200 \times 800 \times 1100 \mathrm{~mm}$ |
| Doors | Closed (glas front and metal back) | Perforated | Closed (glas front and metal back) |
| Access control | Electronic | Electronic | Electronic |
| UPS Capacity | - | up to 3 kVA | up to 3 kVA |
| Back-up time | - | 15/30 min @ 50\% load | 15/30 min @ 50\% load |
| Cooling capacity | - | - | $3,6 \mathrm{~kW}$ |
| User interface | Touch screen; web browser | Web browser | Touch screen, web browser |
| Monitoring | Temperature \& humidity, smoke, iPDU, door status | Temperature \& humidity, smoke, UPS and batteries, iPDU, door status, alarm status | Cooling, temperature \& humidity, smoke, leakage, UPS and batteries, iPDU, door status, alarm status |
| Alarm | Sound/light alarm, email notification | Sound/light alarm, email notification | Sound/light alarm, email notification |
| Options | Camera, cabling, ventilation fans, SMS alarm notification, fire extinction system | Camera, cabling, ventilation fans, SMS alarm notification | Camera, cabling, ventilation fans, SMS alarm notification, fire extinction system |
| Versions |  |  |  |

[^0]
## MICRO AND MINI DATA CENTRE



## DATWYLER MINI DATA CENTRE

Datwyler's modular Mini Data Centre is a state-of-the-art, pre-assembled plug-and-play IT infrastructure solution. It consists of a 42 U rack with integrated power distribution, uninterruptible power supply (UPS), fire suppression system (optional), air gap sealing and environment monitoring system, as well as additional IT equipment racks and an in-row cooling system. It can be deployed within a few hours. It provides multiple ways to configure power and cooling redundancy to meet the current demand while being ready for future technology migration at low cost and with less disruption.

Datwyler's modular Mini Data Centre is designed for applications such as edge computing, small data centre, building distributor (BD), floor distributor (FD) and "smart facilities" deploying loT devices and running AI, AR, VR and automation.


| Specifications |  | Remote management |  |
| :---: | :---: | :---: | :---: |
| ITload | up to 72 kW |  | Cooling system, UPS, access control, iPDU, environment setpoint and alarm notification |
| UPS capacity | up to 80 kVA |  |  |
| IT racks | up to 8 (static load $1300 \mathrm{~kg} / \mathrm{rack}$ ) | Remote monitoring | Cooling system, UPS, access control, iPDU, |
| Backup time | up to 15 mins. |  | power usage effectiveness (PUE), IT load, |
| Sensible cooling capacity | up to 75.3 kW (CW or DX) |  | temperature, humidity and alarm status |
| Dimensions (W $\times$ D $\times$ H) | $(1500-6900) \times 1400 \times 2000 \mathrm{~mm}$ |  |  |
| Mounting | Direct on floor or on raised floor | User interface | 10.4" touch screen and remote web interface |
| Cable entry | Top / bottom access | Alarm | Sound/light alarm, email notification |
| Emergency ventilation | Top of the rack and front door |  |  |
| Versions |  |  |  |

## MICRO AND MIN DATA CENTRE

## DATWYIER EMS FOR MINI AND MICRO DATA CENTRE

The Environmental Monitoring System (EMS) provides a top level as well as a detailed overview of the status of IT infrastructure housed within the Micro \& Mini DC. The system is characterized by real time remote monitoring of environmental conditions, access control and energy consumption of IT infrastructure devices and systems. In case of faults or emergencies the system is capable of alerting the user to take timely and necessary action to protect the mission critical IT systems.

System architecture


HMI touch screen features
Flat Touchscreen with multi-touch function
Multilingual Web GUI with integrated logic
SNMP enabled ports for auto detection of sensors
User access management
Integrated interface Ethernet, USB, CAN, Analog \& Digital
Provides notifications and alerts such as E-mail, SMS and SNMP traps
Extensive range of sensors for environmental monitoring,
security control and power monitoring
USB interface for video camera
SD card slot for optional SD card (max 64GB)
Sim card slot for optional GSM modem
Warning alarms for maintenance and critical events
Graphical representation of environmental data

## GOPPER SOLUTIONS

## DATWYLER

## High-grade copper system solutions

Datwyler develops, manufactures and distributes high-grade and futureproof network infrastructure solutions based on copper cabling technology - from analogue telephony to 10-and 40-gigabit Ethernet. These system solutions set standards for quality, reliabilty and performance and meet all media covergence needs.

With Datwyler copper cabling systems you can always keep up with the constantly increasing transfer rates and exploit the full potential of networks. Thus, they offer high investment security for the future.

The comprehensive product range extends from single cables and components to complete end-to-end systems. The modular solutions of Datwyler are suitable for all sizes and types of Local Area Networks (LANs), comms rooms and data centres.

## COPPER SOLUTIONS

## COPPER CABLING SYSTEM

The Datwyler product portfolio includes shielded and unshielded copper technology system solutions for the transmission of analog and digital voice, image, multimedia and data signals as well as control signals and remote power (PoE to 4PPoE).

On the following pages you will find our recommendations for copper data networks with transmission speeds of $1 \mathrm{Gbit} / \mathrm{s}, 10$ Gbit/s and more - i.e. for all your applications in office environments and data centres. Here you can also basically choose between especially future-proof "high-end" and "premium" solutions as well as cables and components which are very popular with our customers due to their cost-effectiveness or optimum price-performance ratio.

The demands on cabling systems continue to grow at a rapid pace. A shielded 10 Gbit/s copper solution from Datwyler brings such high performance to your office environment that it also equips your network infrastructure for future technologies (from page 18 onwards). These days it is vital to plan well ahead in a data centre environment as well, in order to be prepared for further technological advances (from page 69 onwards).


## SHELDED VS. UNSHELIDED

The higher the demands on data infrastructure, the greater the influence from the surrounding systems. As part of the ISO standard, new specifications have been established for coupling damping and Alien Cross Talk. These parameters demand an error-free 1GBase-T and 10GBase-T application.

An independent analysis within a third party laboratory has highlighted the problem from outside influence. A simple mobile phone within the area of a 1GBase-T application can create interference on a 1GBase-T unshielded application.

Datwyler therefore recommends shielded Channel solutions for guaranteed performance on a secure network.


## DATWYIER CABLES

 + DATWYIER COMPONENTS + QUALITY ENGINEERRG
## $=25$ YEAR SYSTEM WARRANTY

The sophisticated Datwyler training and certification programme for Solution Partners guarantees the optimal installation quality of our products. Certified partners can offer a Datwyler warranty for the installed systems: normally for 25 years, but this can be extended depending on project criteria.

## DATWYIER LINK RECOMMENDATIONS

## High-End Link: greatest headroom, PoE++/4PPoE, future-proof

Highest bandwidth reserve capacities and power transmission to the workplace over the LAN cabling system - up to 96 W for end devices such as computers, monitors, cameras and telephones.

## Premium Link: good headroom, PoE++/4PPoE, future-proof

High bandwidth reserve capacities and power transmission to the workplace over the LAN cabling system - up to 96 W for end devices such as computers, monitors, cameras and telephones.

## Most Economical Link

The solution which is most commonly used by Datwyler customers for the transmission of voice, video, multimedia and data signals.


> This overview provides recommended cables and components which are the best fit to your current and future requirements. Please note the recommended links on the following pages which are highlighted in different colours.

## Most Popular Link

which offers the best price-perfor-

## Unshielded Link, 10GB UTP with high capacity reserves

for the transmission of digital and analogue voice, video, multimedia and data signals. digital and analogue voice, video, multimedia and data signals.


## DATWYLER

Data Solutions Product Guide

## GOPPER GABLING SYSTEMS



Cat. $6_{A}$ /Class $\mathrm{E}_{\mathrm{A}}$ 500 MHz

Cat. 5e/Class D 100 MHz


## Patch panel

 표

KS 24x
Keystone patch panel, unloaded


MPS 24x
unloaded, stainless steel (PS-TERA)
-
-
KS 24x
Keystone patch panel, unloaded


MGK 24x
Keystone patch panel, unloaded, stainless steel and grey
-rccucucctan


KS 24x
Keystone patch panel, unloaded

## - Hintrintrant <br> KU 24x-sg <br> Keystone patch panel, staggered, <br> unloaded <br>  <br> KU 24x <br> Keystone patch panel, unloaded



KU 24x
Keystone patch panel, unloaded


KS 24x-a
Keystone patch panel, angled, unloaded

MGK 24x
unloaded, stainless steel (PS GG-45)


KS 48x
Keystone patch panel, unloaded, black


KS 48x-a
Keystone patch panel, angled,
unloaded, black


KS 24x-a
Keystone patch panel, angled, unloaded


Keystone patch panel, unloaded, black


MGK 48x unloaded, stainless steel (PS GG-45)



CSA 24/8 Cat. 6 alternativ: Compact Sôlution with integrated RJ45 modules


KS 24x-a
Keystone patch panel, angled, unloaded



CSP 24/8 Cat. 6
alternative: Compact Solution with integrated RJ45 modules

CU 8203 4P S/FTP, AWG 2325 and 40GBit/s

## 上表

CU 7725 4P S/FTP, AWG 22, 25GBit/s

Rex
CU 7150 4P S/FTP, AWG 22
CU 7150 2x4P F8 S/FTP, AWG 22
दxas
CU 7702 4P S/FTP, AWG 22
CU 7702 2x4P F8 S/FTP, AWG 22


CU 7080 4P S/FTP, AWG 23, Cat. 7 CU 7080 2x4P F8 S/FTP, AWG 23, Cat. 7
$\square$ uss
CU 7060 4P S/FTP, AWG 23
CU 7060 2x4P F8 S/FTP, AWG 23

- Kase

CU 7120 4P S/FTP, AWG 23 CU 7120 2x4P F8 S/FTP, AWG 23


PS-GG45 $7_{A}$ Cat. $7_{\text {A }}$

PS-TERA 4P Cat. $7_{A}$


CU 6502 4P U/FTP, AWG 23 CU 6502 2x4P F8 U/FTP, AWG 23
CU 6552 4P F/FTP, AWG 23 CU 6552 2x4P F8 F/FTP, AWG 23
$\ldots$
RJ45 module KS-TC Plus $1 / 8$ Cat. $6_{\text {A }}$

RJ45 module KS-T Plus $1 / 8$ Cat. $6_{\text {A }}$

RJ45 module

RJ45 module
KS-T8 Class I

RJ45 patch cord Cat.8/Class I
CU 8206 flex

RJ45 patch cord
Cat. $6_{\mathrm{A}} / \mathrm{E}_{\mathrm{A}}$
CU 7702 flex


RJ45 patch cord
Cat.5e
CU 5502 flex


MS-C6 ${ }^{1 / 8}$
Cat. $6_{\mathrm{A}}$ (IEC)
$180^{\circ}$-k

CU 5002 4P F/UTP, AWG 24
exas rest

CU $6924 \mathrm{P} \cup / \mathrm{UTP}$, AWG 23

## GOPPER SOLUTIONS - 10 Chit/s STP

## DATA CABLES CAIEGGRY $_{n^{\prime}}$ 7AND ${ }_{a}$

## Premium Link: good headroom, PoE++/4PPoE, future-proof

Copper data cables, up to $1000 \mathrm{MHz}, 4 \times 2 \times$ AWG23, for structured premises cabling. Applicable up to 10GBase-T.
Applicable standards: EN 50173-1:2002, ISO/IEC 11801:2002/A2:2010.


## COPPER SOLUTIONS - 10 Ghit/s STP



KS-TC Plus 1/8 Cat.6. (IEC) KS-T Plus $1 / 8$ Cat. $6_{A}$ (IEC)


KS-TS 1/8 Cat.6/E $\mathrm{E}_{\mathrm{A}}$ (IEC) MS-K Plus 1/8 Cat.6A (IEC)

Article No.
Description
Colour


| 418069 | RJ45 module KS-TC Plus 1/8 Cat. ${ }_{\text {N }}$, shielded, tool-less | metal | 12 pcs . |
| :---: | :---: | :---: | :---: |
| 418061 | RJ45 module KS-T Plus 1/8, Cat.6 (IEC), shielded, tool-less, with dust shutter | metal | 10 pcs . |
| 418054 | RJ45 module KS-TS 1/8, toolless slimline Cat.6/E. E $_{\text {s }}$ shielded | metal | 10 pcs . |
| 440005 | RJ45 module MS-K Plus 1/8, Cat.6 (IEC), with colour code TIA 568-A and TIA 568-B | metal | 10 pcs. |



Accessories for RJ45 modules, Cat. $6_{A} / E_{A^{\prime}}$, shielded

| 418062 | Dust shutters for module KS-TC Plus and KS-T Plus, Cat.6 (1 set = 10 pcs.) | white | 1 set |
| :---: | :---: | :---: | :---: |
| 418063 | Dust shutters for module KS-TC Plus and KS-T Plus, Cat.6. (1 set = 10 pcs.) | black | 1 set |
| 418064 | Dust shutters for module KS-TC Plus and KS-T Plus, Cat.6 (1 set = 10 pcs .) | yellow | 1 set |
| 418065 | Dust shutters for module KS-TC Plus and KS-T Plus, Cat.6 (1 set = 10 pcs.) | blue | 1 set |
| 418066 | Dust shutters for module KS-TC Plus and KS-T Plus, Cat.6 (1 set = 10 pcs.) | green | 1 set |
| 418067 | Dust shutters for module KS-TC Plus and KS-T Plus, Cat.6 ( 1 set = 10 pcs .) | red | 1 set |

## PATCH CORDS

## RJ45, Cat. $6_{A} / \mathrm{E}_{\mathrm{A}^{\prime}} 500 \mathrm{MHz}$, <br> shielded, wiring 1:1

with CU 7702 4P flex, Cat. 7
suitable for 1GBase-T and 10GBase-T transmission
Copper patch cords, Cat. $6_{A} / E_{A}(4 \times 2 \times$ AWG26)
for structured premises cabling.
Applicable standards: EN 50173-1:2002, ISO/IEC 11801:2002/A2:2010.
Customized adjustments (bend limiting boot, termination, label) are available.

Length
Datwyler patch cords, RJ45, Cat. $\mathbf{6}_{A} / \mathrm{E}_{\mathrm{A}}$, shielded, wiring 1:1 (with CU 77024 P flex, $\mathrm{FRNC} / \mathrm{LSOH}{ }^{11}$, Cat.7)

|  | white | black | gey | green | yellow | red | blue | orange |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0.5 m | 653903 | 653803 | 653503 | 653553 | 653603 | 653653 | 653703 | (653753)* |
| 1.0 m | 653908 | 653808 | 653508 | 653558 | 653608 | 653658 | 653708 | 653758 |
| 1.5 m | 653909 | 653809 | 653509 | 653559 | 653609 | 653659 | 653709 | (653759)* |
| 2.0 m | 653910 | 653810 | 653510 | 653560 | 653610 | 653660 | 653710 | 653760 |
| 2.5 m | 653911 | 653811 | 653511 | 653561 | 653611 | 653661 | 653711 | (653761)* |
| 3.0 m | 653912 | 653812 | 653512 | 653562 | 653612 | 653662 | 653712 | 653762 |
| 4.0 m | 653914 | 653814 | 653514 | 653564 | 653614 | 653664 | 653714 | (653764)* |
| 5.0 m | 653916 | 653816 | 653516 | 653566 | 653616 | 653666 | 653716 | 653766 |
| 6.0 m | 653918 | 653818 | 653518 | 653568 | 653618 | 653668 | 653718 | (653768)* |
| 7.0 m | 653920 | 653820 | 653520 | 653570 | 653620 | 653670 | 653720 | 653770 |
| 8.0 m | 653922 | 653822 | 653522 | 653572 | 653622 | 653672 | 653722 | (653772)* |
| 9.0 m | 653924 | 653824 | 653524 | 653574 | 653624 | 653674 | 653724 | (653774)* |
| 10.0 m | 653926 | 653826 | 653526 | 653576 | 653626 | 653676 | 653726 | (653776)* |
| 12.5 m | 653927 | 653827 | 653527 | 653577 | 653627 | 653677 | 653727 | (653777)* |
| 15.0 m | 653928 | 653828 | 653528 | 653578 | 653628 | 653678 | 653728 | (653778)* |
| 20.0 m | 653930 | 653830 | 653530 | 653580 | 653630 | 653680 | 653730 | (653780)* |

Note: Products marked with ( )* and lengths up to 100 m are not on stock but can be made to order. Please do not hesitate to contact us for details.
${ }^{1)}$ ) FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

## COPPER SOLUTIONS - 10 Ghit/s STP

## PATCH PANELS

for RJ45 modules, Cat. $\mathrm{K}_{\mathrm{A}} / \mathrm{E}_{\mathrm{A}}$, shielded


## KS 24x

Keystone patch panel, unloaded, grey


KS 24x-a
Keystone patch panel, angled, unloaded


MGK 24x
Keystone patch panel, unloaded, stainless steel and grey


KS 24x
Keystone patch panel, unloaded, black


KS 48x
Keystone patch panel, unloaded, black


MGK 24x/16x,
Keystone patch panel, unloaded, grey
alternative: CSA 24/8 Cat. 6
Compact Solution
with integrated RJ45 modules


KS 48x-a
Keystone patch panel, angled, unloaded, black


MGK 48x,
Keystone patch panel, unloaded, grey

| Article No. | Description | Colour (similar to) | PU |
| :---: | :---: | :---: | :---: |
| 418019 | Patch panel KS 24x, straight, 19"/1U, for 24x RJ45 Keystone module, FTP (without modules) | black, RAL 9005 | 1 pc . |
| 418020 | Patch panel KS 24x, straight, 19"/1U, for $24 \times$ RJ45 Keystone module, FTP (without modules) | grey, RAL 7035 | 1 pc . |
| 417980 | Patch panel CSA Plus $24 / 8$ with $24 \times$ RJ45 jack Cat. 6 A (IEC) | grey, RAL 7035 | 1 pc . |
| 4000099 | Patch panel KS 24x-a, angled, 19"1U, for $24 \times$ RJ45 Keystone module, FTP (without modules) | black, RAL 9005 | 1 pc . |
| 400098 | Top cover for patch panel KS 24x-a, angled, to seperate the warm and cold airflow | steel | 1 pc |
| 418120 | Patch panel KS 48x, straight, $19 / 110$, for 48x KS-TC Plus $1 / 8$ Keystone module (without modules) | black, RAL 9005 | 1 pc |
| 418099 | Patch panel KS 48x-a, angled, 19"/1U for 48x KS-TC Plus 1/8 Keystone module (without modules) | black, RAL 9005 | 1 pc . |
| 440042 | Patch panel MGK 24x, straight, 19 "/1U, for $24 \times$ KS-T Plus or KS-TC Plus Keystone module (without modules) | stainless steel | 1 pc . |
| 440043 | Patch panel MGK 24x, straight, 19 "/1U, for $24 \times$ KS-T Plus or KS-TC Plus Keystone module (without modules) | grey | 1 pc . |
| 440053 | Patch panel MGK 16x, straight, 19 "/1U, for 16x KS-T Plus or KS-TC Plus Keystone module (without modules) | grey | 1 pc . |
| 440051 | Patch panel MGK 48x, straight, 19"11.5U, for 48x KS-T Plus or KS-TC Plus Keystone module (without modules) | grey | 1 pc . |
| 1401609 | LSA plus/IDC insertion tool |  | 1 pc . |

## ACCESSORIES



| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 195041 | Horizontal cable management unit, 1 U | black | 1 pc . |
| 195042 | Horizontal cable management unit, 2 U | black | 1 pc |
| 195043 | Horizontal cable management unit, 3 U | black | 1 pc. |
| 195097 | 19 cable management panel, 10 , five $40 \times 80 \mathrm{~mm}$ rings | black | 1 pc . |
| 195098 | 19" cable management panel, 2 L , five $80 \times 60 \mathrm{~mm}$ rings | black | 1 pc . |
| 195220 | 19" cable management panel, 1 U , five $40 \times 50 \mathrm{~mm}$ rings | black | 1 pc. |
| 195221 | 19 cable management panel, 2 L , five $80 \times 80 \mathrm{~mm}$ rings | black | 1 pc . |
| 195184 | 19" blank plate, tool-less, 1 U | black, RAL 7035 | 1 pc |
| 195185 | 19" blank plate, tool-less, 2 U | black, RAL 7035 | 1 pc |
| 195186 | 19" blank plate, tool-less, 3 U | black, RAL 7035 | 1 pc |
| 418010 | Blank covers for unused KS openings in patch panels | black | 10 pcs . |
| 418011 | Blank covers for unused KS openings in patch panels | white | 10 pcs . |
| For more ac | sories please visit our website |  |  |

## COPPER SOLUTIONS - 10 Chit/s STP

## FACEPLATES for RJ45 modules



# COPPER SOLUTIONS - 10 Ghit/s UIP 

## DATA CABIE. CATEGORY G $_{A}$



Copper data cable, up to 500 MHz , for structured premises cabling. Applicable standards: EN 50173-1 and EN 50288-11-1, ISO/EC 11801
Applicable up to $10 \mathrm{GBase}-\mathrm{T}$.

| Article No. | Dimensions <br> $n \times n \times m m(A W G)$ | Sheath | Sheath $\varnothing$ <br> mm | Weight <br> $\mathrm{kg} / \mathrm{km}$ | Cu weight <br> $\mathrm{kg} / \mathrm{km}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |

CU 692 4P, U/UTP, AWG23, Category $6_{A}$ data cable, unshielded

The D" in these article numbers stands for Euroclass $D_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with Class $C_{c a}$ or even $B_{c a}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com.
${ }^{1)}$ FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen


## RJ45 MODULES

unshielded
$\pm$
POE++


KU-TC Plus 1/8 Cat. $6_{\text {A }}$ tool-less, unshielded

## PATCH CORDS

## RJ45, Cat. G $_{A} / \mathrm{E}_{\mathrm{A}^{\prime}}, 500 \mathrm{MHz}$, shielded*, wiring 1:1

with CU 7702 4P flex, Cat. 7
suitable for 1GBase-T and 10GBase-T transmission
Copper patch cords, Cat. $6_{A} / E_{A}(4 \times 2 \times$ AWG26 $)$
for structured premises cabling.
Applicable standards: EN 50173-1:2002, ISO/IEC 11801:2002/A2:2010
Customized adjustments (bend limiting boot, termination, label) are available.


Note: Products marked with ( )* and lengths up to 100 m are not on stock but can be made to order. Please do not hesitate to contact us for details.
${ }^{1)}$ ) FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

[^1]
## COPPER SOLUTIONS - 10 Ghit/s UIP

## PATCH PANEIS

for RJ45 modules, Cat. 6 $_{\text {A }}$, unshielded



Patch panel KU 24x-sg staggered, unshielded


IDC termination tool 110

| Article No. | Description | Colour (similar to) | PU |
| :---: | :---: | :---: | :---: |
| 418027 | Patch panel KU 24x-sg, 19"/1U , for 24x RJ45 Cat. 6 Keystone module UTP (delivery without modules) | grey, RAL 7035 | 1 pc. |
| 418028 | Patch panel KU 24x-sg, 19"/1U, for 24x RJ45 Cat. 6 A Keystone module UTP (delivery without modules) | black, RAL 9005 | 1 pc . |
| 185896 | IDC termination tool 110 |  | 1 pc. |

ACCESSORIES


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 195041 | Horizontal cable management unit, 1U | black | 1 pc . |
| 195042 | Horizontal cable management unit, 2 U | black | 1 pc . |
| 195043 | Horizontal cable management unit, 3 U | black | 1 pc. |
| 195097 | 19" cable management panel, 1 l , five $40 \times 80 \mathrm{~mm}$ rings | black | 1 pc |
| 195098 | 19 cable management panel, 2 L , five $80 \times 60 \mathrm{~mm}$ rings | black | 1 pc . |
| 195220 | 19" cable management panel, 1 U , five $40 \times 50 \mathrm{~mm}$ rings | black | 1 pc . |
| 195221 | 19" cable management panel, 2 L , five $80 \times 80 \mathrm{~mm}$ rings | black | 1 pc. |
| 195184 | 19" blank plate, tool-less, 1 U | black, RAL 7035 | 1 pc |
| 195185 | 19" blank plate, tool-less, 2U | black, RAL 7035 | 1 pc. |
| 195186 | 19" blank plate, tool-less, 3 U | black, RAL 7035 | 1 pc . |
| 418010 | Blank covers for unused KS openings in patch panels | black | 10 pcs . |
| 418011 | Blank covers for unused KS openings in patch panels | white | 10 pcs. |

## COPPER SOLUTIONS - 10 Ghit/s UTP

## FACEPLATES for rJ45 modules



## COPPER SOLUTIONS - 25/40 Gbit/s STP

## DATA CABLE - CATEGORY 8

## CU 8203 4P, S/FTP, AWG 23, shielded

| Article No. | Dimensions $n \times n \times m m \text { (AWG) }$ | Sheath | Sheath $\varnothing$ <br> mm | Weight kg/km | Cu weight kg/km | Fire load kWh/m | MJ/m | Colour | PU | PoE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19200900DK | $4 \times 2 \times 0.59$ (AWG23) | FRNC/LSOH ${ }^{\text {1) }}$ | 8.1 | 67.3 | 33.2 | 0.18 | 0.65 | orange | 1000 m drum | $\begin{aligned} & \pm+0= \\ & 4 \mathrm{PPOE} \end{aligned}$ |

## DATA CABLE-25 GBIT/S

Copper data cable, up to $2000 \mathrm{MHz}, 4 \times 2 \times$ AWG22,

## S/FTP

for data centre and structured premises cabling.
Applicable standards: EN 50173-1:2002, ISO/IEC 11801:2002/A2:2010.
Application up to 25GBase-T, reserves for future applications.
Developed for $25 \mathrm{GBase}-\mathrm{T}$ and a transmission distance of 50 m .
Optimized for broadband video signals, e.g. analogue and digital TV signals.
PoE+ and PoE++/4PPoE-ready (max. 100 W ).
CU 7725 4P, S/FTP, AWG22, shielded, 25GBase-T

| Article No. | Dimensions $\mathrm{n} \times \mathrm{n} \times \mathrm{mm} \text { (AWG) }$ | Sheath | Sheath $\varnothing$ <br> mm | Weight kg/km | Cu weight kg/km | Fire load kWh/m | $\mathrm{MJ} / \mathrm{m}$ | Colour | PU | PoE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19434900DK | $4 \times 2 \times 0.62$ (AWG22) | FRNC/LSOH | 7.6 | 62 | 34.9 | 0.18 | 0,64 MJ/m | orange | 1000 m drum | $\begin{aligned} & \pm+0^{2} \\ & 4 \mathrm{PPoE} \end{aligned}$ |
| 19435000DL | $2 \times(4 \times 2 \times 0.62$ (AWG22)) | FRNC/LSOH | 7.6 | 62 | 34.9 | 0.18 | 0,64 MJ/m | orange | 500 m drum | $\begin{aligned} & \pm 0 \mathrm{O} \\ & 4 \mathrm{PPOE} \end{aligned}$ |

The " $D^{\prime \prime}$ in these article numbers stands for Euroclass $D_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with $\mathrm{Class} \mathrm{C}_{c \mathrm{c}}$ or even $\mathrm{B}_{\mathrm{ca}}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com..
${ }^{1)}$ FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

## MODULES

## KS-T8 Class I, tool-less, shielded

RJ45 Keystone module.


Developed for 25/40GBase-T.

| Article No. $\quad$ Description | Colour |  |
| :--- | :--- | :--- |
| 440071 | RJ45 module KS-T8 Class I, tool-less, shielded, with dust shutter (grey) | PU |

## PS-GG45 and PS-TERA, Cat. $7_{A^{\prime}}$, shielded

Speziell für Anwendungen über 10GBase-T hinaus entwickelt.
PS-GG45: das „Two-in-One"-Modul hat 12 Kontakte, die in zwei verschiedenen Übertragungsmodi genutzt werden können: Standard $=$ RJ45 und High-Speed $=$ GG45. PS-TERA ${ }^{\text {TM }}$ : für PS-TERA-Patchkabel.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 400102 | Module PS-GG45 $7_{\mathcal{L}^{\prime}}, 1000 \mathrm{MHz}$, 4P, Two-in-One, shielded | metal | 10 pcs. |
| 400103 | Module PS-GG45 7 , 1000 MHz , 4 P, Two-in-One, shielded, for stranded wires | metal | 10 pcs . |
| 1408502 | Module PS-TERA 4P, Cat. 7 / $/ \mathrm{F}^{\prime}, 1000 \mathrm{MHz}$, shielded | black | 1 pc . |

## COPPER SOLUTIONS - 25/40 Ghit/s

## PATCH CORDS

## RJ45, 2000 MHz, shielded, wiring 1:1

with CU 8206 4P flex, Cat. 8
suitable for 25 GBase-T and 40GBase-T transmission

| Article No. | Patch cord | Cable | Cable colour |
| :--- | :--- | :--- | :--- |
| Wiring |  |  |  |

## GG45 ${ }^{\text {TM }}$ Connecting System

Measurement / Patch cord GG45 7 , 1000 MHz , 4P, shielded Adapter patch cord PS-GG45/RJ45, 4P, shielded

The measurement cords PS-GG45 7 $7_{A}, 1000 \mathrm{MHz}$, 4P, are primarily needed for acceptance measurements.
The PS-GG45 plugs are not backward compatible with RJ45 jacks. The combination of a high-performance PS-GG45 cabling system with RJ45 active devices can only be achieved with adapter patch cords (PS-GG45 to RJ45).


Measurement / patch cord


Adapter patch cord

| Article No. | Length <br> m | Description | Plug 1 | Plug 2 | Cable | Cable colour | Wiring |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 400120 | 2.0 | Measurement/patch cord $4 \mathrm{P}, 1000 \mathrm{MHz}$ | PS-GG45 7 | PS-GG45 7 | FRNC/LSOH | orange | 1:1 |
| 400121 | 1.0 | Adapter patch cord 4P | PS-GG45 ${ }_{\text {A }}$ | RJ45 | FRNC/LSOH | orange | $1: 1$ |
| 400122 | 2.0 | Adapter patch cord 4P | PS-GG457 | RJ45 | FRNC/LSOH | orange | 1:1 |
| 400123 | 3.0 | Adapter patch cord 4P | PS-GG45 7 | RJ45 | FRNC/LSOH | orange | 1:1 |
| 400125 | 5.0 | Adapter patch cord 4P | PS-GG45 ${ }^{\text {a }}$ | RJ45 | FRNC/LSOH | orange | 1:1 |

## PS-TERA 4P/2P to RJ45

with flex cable CU 7702 flex
Recommended especially for multimedia cabling.
Cable type: CU 7702 flex 4P (PiMF), FRNC/LSOH, up to 1000 MHz, shielded.
Applicable standards: ISO/IEC 11801 2nd Ed. Amd. 2 EN 50173: 2007. For Class $F_{A} /$ Cat. $7_{A}$ both ends of the patchcord are wired up with a PS-TERA 4P plug.


| Article No. | Length <br> m | Boot colour |  | Description | Adaptation | Cable | Cable colour | Pin connection |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | PS-TERA | RJ45 |  |  |  |  |  |
| 654058 | 1.0 | black | black | Patch cord | PS-TERA 4P to RJ45 | CU 77024 P flex FRNC/LSOH | grey | 1:1 |
| 654060 | 2.0 | black | black | Patch cord | PS-TERA 4P to R 45 | CU 77024 f flex FRNC/LSOH | grey | 1:1 |
| 654062 | 3.0 | black | black | Patch cord | PS-TERA 4P to R 45 | CU 77024 - flex FRNC/LSOH | grey | $1: 1$ |
| 654066 | 5.0 | black | black | Patch cord | PS-TERA 4P to RJ45 | CU 7702 4P flex FRNC/LSOH | grey | 1:1 |
| 654158 | 1.0 | yellow | yellow | Patch cord | PS-TERA 2P to RJ45 | CU 2 P flex Multimedia FRNC/LSOH | grey | $100 B T$ (A) |
| 654160 | 2.0 | yellow | yellow | Patch cord | PS-TERA 2P to RJ45 | CU 2P flex Multimedia FRNC/LSOH | grey | $100 B T$ ( $A$ ) |
| 654162 | 3.0 | yellow | yellow | Patch cord | PS-TERA 2P to RJ45 | CU 2 P flex Multimedia FRNC/LSOH | grey | $100 \mathrm{BT}(\mathrm{A})$ |
| 654166 | 5.0 | yellow | yellow | Patch cord | PS-TERA 2P to RJ45 | CU 2 P flex Multimedia FRNC/LSOH | grey | 100BT (A) |
| 654208 | 1.0 | red | red | Patch cord | PS-TERA 2P to RJ45 | CU 2 P flex Multimedia FRNC/LSOH | grey | 100 BT (B) uplink |
| 654210 | 2.0 | red | red | Patch cord | PS-TERA 2P to RJ45 | CU 2P flex Multimedia FRNC/LSOH | grey | 100BT (B) uplink |
| 654212 | 3.0 | red | red | Patch cord | PS-TERA 2P to RJ45 | CU 2P flex Multimedia FRNC/LSOH | grey | 100BT (B) uplink |
| 654216 | 5.0 | red | red | Patch cord | PS-TERA 2P to RJ45 | CU 2P flex Multimedia FRNC/LSOH | grey | 100BT (B) uplink |

Please note: customised patch cords (e.g. length, type) available on request

# COPPER SOLUTIONS - 25/40 Gbit/s STP 

## PATCH PANELS

for RJ45 module KS-T8 Class I


KS 48x
Keystone patch panel, unloaded, black


KS 48x-a, angled Keystone patch panel, unloaded, black


KS 24x
Keystone patch panel, unloaded


MGK 24x
Keystone patch panel, unloaded, stainless steel


KS 24x-a, angled Keystone patch panel, unloaded

## 

MGK 24x/16x, Keystone patch panel, unloaded, grey

Colour (similar to) PU

| Article No. | Description | Colour (similar to) | PU |
| :---: | :---: | :---: | :---: |
| 418019 | Patch panel KS 24x, straight, 19"/1U, for 24x RJ45 Keystone module, FTP (without modules) | black, RAL 9005 | 1 pc . |
| 418020 | Patch panel KS 24x, straight, 19"/1U, for 24x RJ45 Keystone module, FTP (without modules) | grey, RAL 7035 | 1 pc |
| 4000099 | Patch panel KS 24x-a angled, 19"/1U, for 24x RJ45 Keystone module, FTP (without modules) | black, RAL 9005 | 1 pc . |
| 418120 | Patchpanel KS 48x, straight, 19"/1U, for 48x RJ45 Keystone module, FTP (without modules)) | black, RAL 9005 | 1 pc |
| 418099 | Patchpanel KS 48x-a, angled, $197 / 1 \cup$ for $48 \times$ RJ45 Keystone module, FTP (without modules) | black, RAL 9005 | 1 pc . |
| 440042 | Patchpanel MGK 24x, straight, 19/1U, for 24x RJ45 Keystone module, FTP (without modules) | stainless steel | 1 pc . |
| 440043 | Patchpanel MGK 24x, straight, 19/1U, for 24x RJ45 Keystone module, FTP (without modules) | grey, RAL 7035 | 1 pc . |

## for PS-GG45 $7_{A}$ and PS-TERA 4P modules

## 



| Article No. | Description MPS 24x for PS-TERA 4P MGK 24x for PS-GG45 | Colour/Materiah $8 \times$ for PS-GG4BU7 |
| :---: | :---: | :---: |
| 185840 | Patch panel MPS 24x, 19"/1U, for 24x PS-TERA 4P modules (without modules) | grey, RAL 7035 1 pc. |
| 185841 | Patch panel MPS 24x, 19"/1U, for 24x PS-TERA 4P modules (without modules) | stainless steel, blank 1 pc. |
| 440042 | Patch panel MGK 24x, 19"/1U, for $24 \times$ RJ45 Keystone modules, FTP (without modules) especially for PS-GG45 7 A modules | stainless steel, blank 1 pc. |
| 440043 | Patch panel MGK 24x, 19"/1U, for 24x RJ45 Keystone modules, FTP (without modules) especially for PS-GG45 7 A modules | grey, RAL 7035 1 pc. |
| 440051 | Patch panel MGK 48x 19"/1,5U, for 48x RJ45 Keystone modules, FTP (without modules) especially for PS-GG45 7 A modules | grey, RAL7035 1 pc. |

## ACCESSORIES



| Article No. | Description Cable management panels | Blank plate Colour (simila | Blank covers for unused Keystone_opehings |
| :---: | :---: | :---: | :---: |
| 195041 | Horizontal cable management unit, 1U | black | 1 pc . |
| 195042 | Horizontal cable management unit, 2 U | black | 1 pc . |
| 195043 | Horizontal cable management unit, 3 U | black | 1 pc |
| 195097 | 19" cable management panel, 1 U , five $40 \times 80 \mathrm{~mm}$ rings | black | 1 pc |
| 195098 | 19" cable management panel, 2 U , five $80 \times 60 \mathrm{~mm}$ rings | black | 1 pc |
| 195220 | 19" cable management panel, 1 U , five $40 \times 50 \mathrm{~mm}$ rings | black | 1 pc |
| 195221 | $19 \mathrm{cable} \mathrm{management} \mathrm{panel}$,2 U , five $80 \times 80 \mathrm{~mm}$ rings | black | 1 pc . |
| 195184 | 19" blank plate, tool-less, 1 U | black, RAL 7035 | 1 pc |
| 195185 | 19" blank plate, tool-less, 2U | black, RAL 7035 | 1 pc |
| 195186 | 19" blank plate, tool-less, 3 U | black, RAL 7035 | 1 pc |
| 418010 | Blank covers for unused KS openings in patch panels | black | 10 pcs . |
| 418011 | Blank covers for unused KS openings in patch panels | white | 10 pcs . |
| 400105 | Termination tool for PS-GG45 | red | 1 pc |
| 1409210 | PS-TERA tool for easy cable preparation | yellow | 1 pc . |
| 1412330 | Parallel pliers for termination of modules | blue | 1 pc |
| For more accessories please visit our website |  |  |  |

## COPPER SOLUTIONS - 25/40 Ghit/s STP

## FACEPLATES for RJ45 modules

| Article No. Description |  |  | Colour (similar to) PU |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { 믄 } \\ & \text { 꿀 } \end{aligned}$ | 1185866 | Faceplate for 1 module with Keystone snap-in fitting | white, RAL 9010 | 1 pc . | 1. 1-port, angled <br> 2. 2-port, angled <br> 3. 3-port, angled |  | 4. 2-port, with straight outlet |
|  | 2185867 | Faceplate for 2 modules with Keystone snap-in fitting | white, RAL 9010 | 1 pc . |  |  |  |
|  | 3185869 | Faceplate for 3 modules with Keystone snap-in fitting | white, RAL 9010 | 1 pc . | Flush/duct mounted Mounting plate: $70 \times 70 \mathrm{~mm}$ Central plate: $50 \times 50 \mathrm{~mm}$ Cover frame: $80 \times 80 \mathrm{~mm}$ | Flush mounted Central plate: $50 \times 50 \mathrm{~mm}$ Cover frame: $80 \times 80 \mathrm{~mm}$ |  |
|  | 4185861 | Faceplate, straigth outlet, for $2 \times$ RJ45 Keystone module | white, RAL 9010 | 1 pc . |  |  |  |  |
|  | 5418030 | Keystone, 1-port, $45 \times 45 \mathrm{~mm}$, for Module 45 system |  |  | 5. Bezel, 1-port <br> 6. Bezel, 2-port <br> 7. Bezel, 1-port, slim |  | 8. Bezel, 2-port, angled <br> 9. Bezel, 1-port, angled |
|  | 6418032 | Keystone, 2-port, $45 \times 45 \mathrm{~mm}$, for Module 45 system | bright white | 1 pc . |  |  |  |
|  | 7418031 | Keystone, 1-port, slim, $45 \times 22.5 \mathrm{~mm}$, for Module 45 system | bright white | 1 pc . |  |  |  |
|  | 8418033 | Keystone, 2-port, $45 \times 45 \mathrm{~mm}$, angled | bright white | 1 pc . | Flush mounted Standard version: $45 \times 45 \mathrm{~mm}$ Slim version: $45 \times 22.5 \mathrm{~mm}$ |  |  |
|  | 9418029 | Keystone, 1-port, $45 \times 45 \mathrm{~mm}$, angled | bright white | 1 pc . |  |  |  |
|  | 418034 | French Standard Faceplate for $45 \times 45 \mathrm{~mm}$ bezel | bright white | 1 pc . |  |  |  |
|  | 9185862 | Faceplate for 1 RJ45 Keystone module | white, RAL 9010 | 1 pc . | - 10.2 -port, angled | - $\square$ | 11.1-port, with straight outlet <br> 12. 2-port, with straight outlet |
|  | 10185863 | Faceplate for 2 RJ45 Keystone modules | white, RAL 9010 | 1 pc . |  |  |  |
|  | 11185864 | Faceplate for 1 RJ45 Keystone module | white, RAL 9010 | 1 pc . | Flush/duct mounted Cover frame: $86 \times 86 \mathrm{~mm}$ | Flush mounted Central plate: $50 \times 50 \mathrm{~mm}$ $(2 \times 25 \times 50 \mathrm{~mm})$ Cover frame: $86 \times 86 \mathrm{~mm}$ |  |
|  | 12185865 | Faceplate for 2 RJ45 Keystone modules | white, RAL 9010 | 1 pc . |  |  |  |  |
|  | 13440101 | 503 faceplate for 2 modules with Keystone snap-in fitting | white | 100 pcs.100 pcs. | 13. 2-port faceplate |  | 17. Bticino Axolute |
|  | 14440102 | 503 faceplate for 3 modules with Keystone snap-in fitting | white |  |  |  |  |
|  | 15440105 | Blank cover for 503 faceplate | white | 100 pcs. | 14. 3-port faceplate |  | 18. Bticino Living International |
|  | 16440106 | External wall box for 503 faceplate, depth 55 mm | white | 100 pcs. |  | $\pm$ | 19. Bticino Living Light |
|  | 17440111 | RJ45 adapter for Bticino Axolute | silver | 100 pcs. |  |  |  |
|  | 18440114 | RJ45 adapter for Bticino Living International | black | 100 pcs. | 15. Blank cover | 20. Bticino Matix |  |
|  | 19440115 | RJ45 adapter for Bticino Living Light | white | 100 pcs. | cover | 21. for Gewiss system |  |
|  | 20440120 | RJ45 adapter for Bticino Matix | white | 100 pcs . | 16. External wall box |  |  |  |
|  | 21440135 | RJ45 adapter for Gewiss system | white | 100 pcs . |  | 22. for Vimar Plana |  |
|  | 22440140 | RJ45 adapter for Vimar Plana | white | 100 pcs . |  |  |  |  |
|  | 23418035 | Surface mount box for 2 Keystone modules | white, RAL 9010 | 1 pc. | 23. Surface mount box | 24. Surface mount box with dust shutters |  |
|  | 418036 | Surface mount box for 4 Keystone modules | white, RAL 9010 | 1 pc . |  |  |  |  |
|  | 24418037 | Surface mount box with dust shutters for 2 Keystone modules | white, RAL 9010 | 1 pc. | for 2 modules: $68 \times 65 \times 30 \mathrm{~mm}$ for 4 modules: $118 \times 85 \times 30 \mathrm{~mm}$ |  |  |
|  | 418038 | Surface mount box with dust shutters for 4 Keystone modules | white, RAL 9010 | 1 pc. |  |  |  |
|  | 25309234 | Surface mount box for 4 Keystone modules, $85 \times 43,63 \times 110 \mathrm{~mm}$ | metal / white | 1 pc. |  |  |  |
|  | 309235 | Surface mount box for 6 Keystone modules, $125 \times 43,63 \times 110 \mathrm{~mm}$ | metal / white | 1 pc . | Hinm mity | 4 modules: $85 \times 43,63 \times 110 \mathrm{~mm}$ <br> 6 modules: $125 \times 43,63 \times 110 \mathrm{~mm}$ <br> 12 modules: $204,5 \times 43,63 \times 110 \mathrm{~mm}$ |  |
|  | 309237 | Surface mount box for 12 Keystone modules, $204,5 \times 43,63 \times 110 \mathrm{~mm}$ | metal / white | 1 pc. |  |  |  |
|  | 26309238 | Adapter plate for DIN rail mounting (delivery without M4 screws) | silver | 1 pc. | 26. Adapter plate | 27. Mini adapter plate |  |
|  | 27309233 | Mini adapter plate for DIN rail mounting (with M4 screw) | silver | 1 pc . |  |  |  |  |
| for PS-TERA modules |  |  |  |  |  |  |  |
|  | 28185763 | Flush faceplate, angled outlet, for up to $2 \times \mathrm{PS} / \mathrm{MS}$ module, with cover frame (without modules) | white, RAL 9010 | 1 pc . | $w$ |  |  |
|  | 29185762 | Wall mounted outlet Edizio 56 mm , angled, for up to $2 \times$ PS/MS module (without modules) | white, RAL 9010 | 1 pc . |  |  |  |
|  | 301408505 | Faceplate for $2 \times$ PS-TERA module (without cover frame and modules) | white, RAL 9010 | 1 pc . | 28. Faceplate $2 x$ (flush mounted) $88 \times 88 \mathrm{~mm}$ Swiss standard | 29. Faceplate $2 x$ (surface mounted) $88 \times 88 \times 67 \mathrm{~mm}$ Swiss standard | 30. Faceplate angled $2 x$ flush duct mounted) $80 \times 80 \mathrm{~mm}$ German standard |
|  | 1400830 | Cover frame $80 \times 80$ for faceplate article no. 1408505 | white, RAL 9010 | 1 pc . |  |  |  |

## COPPER SOLUTIONS -1 Ghit/s UTP

## DATA CABLE-CATEGORY 6

Copper data cable, up to 300 MHz ,
U/UTP
for structured premises cabling.
(with cross)
Applicable standards: EN 50173-1:2002, ISO/IEC 11801:2002/A2:2010.
Applicable up to 1000Base-T.

| Article No. | Dimensions <br> $\mathrm{n} \times \mathrm{n} \times \mathrm{mm}$ (AWG) | Sheath | Sheath Ø mm | Weight kg/km | Cu weight kg/km | Fire <br> KWh/ | $\mathrm{MJ} / \mathrm{m}$ | Colour | PU | PoE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CU 662 4P, U/UTP, AWG24 (with cross), unshielded |  |  |  |  |  |  |  |  |  |  |
| 2401390... | $4 \times 2 \times 0.55$ (AWG24) | FR/PVC ${ }^{1 /}$ | 6.0 | 39.8 | 19.4 | 0.20 | 0.72 | grey | 305 m PullQuick box | $\pm 0{ }^{-1}$ |
| 2401390...L | $4 \times 2 \times 0.55$ (AWG24) | FR/PVC ${ }^{1)}$ | 6.0 | 39.8 | 19.4 | 0.20 | 0.72 | grey | 500 m drum | PoE |
| 2401390...K | $4 \times 2 \times 0.55$ (AWG24) | FR/PVC ${ }^{11}$ | 6.0 | 39.8 | 19.4 | 0.20 | 0.72 | grey | 1000 m drum |  |
| 2401410... S | $4 \times 2 \times 0.55$ (AWG24) | FRNC/LSOH ${ }^{2 /}$ | 6.0 | 41.3 | 19.4 | 0.17 | 0.60 | orange | 305 m reel in box |  |
| 2401410... | $4 \times 2 \times 0.55$ (AWG24) | FRNC/LSOH ${ }^{2 \prime}$ | 6.0 | 41.3 | 19.4 | 0.17 | 0.60 | orange | 500 m drum |  |
| 2401410..K | $4 \times 2 \times 0.55$ (AWG24) | FRNC/LSOH ${ }^{2 \prime}$ | 6.0 | 41.3 | 19.4 | 0.17 | 0.60 | orange | 1000 m drum |  |

The "E" in these article numbers stands for Euroclass $E_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with Class $D_{c a}{ }^{\prime} C_{c a}$ or even $B 2_{c a}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com.
${ }^{1)}$ FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

## DATA CABLE - CATEGORY 5e

Copper data cable, up to $100 \mathrm{MHz}, 4 \times 2 \times$ AWG24,
for structured premises cabling.
Applicable from ISDN to 1000Base-T.
Applicable standards: EN 50173-1:2002,
ISO/IEC 11801:2002/A2:2010.

CU 502 4P, U/UTP, AWG24, unshielded

| 2401320... | $4 \times 2 \times 0.51$ (AWG24) | FR/PVC ${ }^{11}$ | 5.5 | 33.6 | 18.1 | 0.14 | 0.49 | grey | 305 m reel in box | $\pm 00-$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2401320... | $4 \times 2 \times 0.51$ (AWG24) | FR/PVC ${ }^{11}$ | 5.5 | 33.6 | 18.1 | 0.14 | 0.49 | grey | 500 m drum | PoE |
| 2401320...K | $4 \times 2 \times 0.51$ (AWG24) | FR/PVC ${ }^{1}$ | 5.5 | 33.6 | 18.1 | 0.14 | 0.49 | grey | 1000 m drum |  |
| 2401350... S | $4 \times 2 \times 0.51$ (AWG24) | FRNC/LSOH ${ }^{2)}$ | 5.5 | 33.8 | 18.1 | 0.12 | 0.43 | grey | 305 m reel in box |  |
| 2401350... | $4 \times 2 \times 0.51$ (AWG24) | FRNC/LSOH ${ }^{2}$ | 5.5 | 33.8 | 18.1 | 0.12 | 0.43 | grey | 500 m drum |  |
| 2401350...K | $4 \times 2 \times 0.51$ (AWG24) | FRNC/LSOH ${ }^{2}$ | 5.5 | 33.8 | 18.1 | 0.12 | 0.43 | grey | 1000 m drum |  |

The "E" in these article numbers stands for Euroclass $E_{c a}$.
${ }^{\text {1) }}$ FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

## RJ45 MODULES

unshielded


KU-T 1/8 Cat.6, unshielded, tool-less


KU-T 1/8 Cat. 5e, unshielded, tool-less

| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 418070 | RJ45 module KU-T 1/8 Cat.6, unshielded, tool-less | white | 10 pcs. |
| 418071 | RJ45 module KU-T 1/8 Cat.6, unshielded, tool-less | black | 10 pcs. |
| 418072 | RJ45 Keystone KU-T 1/8 Cat. 5e, unshielded, tool-less | white | 10 pcs . |
| 418073 | RJ45 Keystone KU-T 1/8 Cat. 5e, unshielded, tool-less | black | 10 pcs. |

## COPPER SOLUTIONS - 1 Ghit/s <br> UTP

## PATCH CORDS

RJ45, Cat. 6, 250 MHz , unshielded, 4P, wiring 1:1
Patch cords, U/UTP, with FR/PVC ${ }^{1)}$ or FRNC/LSOH ${ }^{2)}$ sheath


| Length | FR/PVC ${ }^{1)}$ | FRNC/LSOH ${ }^{\text {2 }}$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | grey | grey | green | yellow | red | blue | white | black |
| 1.0 m | 309021 | 309321 | 65185800 ZY | 65170800 ZY | 65180800ZY | 65175800ZY | 65165800ZY | 65160800ZY |
| 1.5 m | 309022 | 309322 | 65186000 ZY | $65171000 Z Y$ | 65181000 ZY | 65176000 ZY | 65166000ZY | $65161000 Z Y$ |
| 2.0 m | 309023 | 309323 | 65186100ZY | 65171100ZY | 65181100ZY | 65176100ZY | 65166100ZY | 65161100ZY |
| 3.0 m | 309025 | 309325 | $65186200 Z Y$ | $65171200 Z Y$ | $65181200 Z Y$ | $65176200 Z Y$ | 65166200ZY | 65161200ZY |
| 4.0 m | 309026 | 309326 | 65186400ZY | 65171400ZY | 65181400ZY | 65176400ZY | 65166400ZY | 65161400ZY |
| 5.0 m | 309027 | 309327 | 65186600ZY | 65171600ZY | 65181600ZY | 65176600ZY | 65166600ZY | 65161600ZY |
| 7.0 m | 309029 | 309329 | 65187000 ZY | $65172000 Z Y$ | 65182000 ZY | 65177000 ZY | 65167000 ZY | 65162000ZY |
| 10.0 m | 309031 | 309331 | 65187600 ZY | $65172600 Z Y$ | $65182600 Z \mathrm{ZY}$ | $65177600 Z Y$ | $65167600 Z$ Y | $65162600 Z Y$ |

1) FR/PVC = Flame Retardant/Polyvinylchloride
${ }^{\text {2 }}$ ) FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen

Patch cords, RJ45, Cat. 5e, 100 MHz , unshielded, 4P, wiring 1:1
Patch cords, U/UTP, with FR/PVC ${ }^{1)}$ or FRNC/LSOH ${ }^{2}$ ) sheath
Grey, with moulded and bend limiting boots.
Cable sheath made of FR/PVC ${ }^{11}$.
Suitable for all applications up to Class D (100 MHz), e.g. 1000Base-T, 100Base-T, ISDN.

| Length ${ }^{3)}$ | FR/PVC ${ }^{1}{ }^{1}$ | FRNC/LSOH ${ }^{\text {2) }}$ |
| :---: | :---: | :---: |
|  | grey | grey |
| 1.0 m | 309001 | 309301 |
| 1.5 m | 309002 | 309302 |
| 2.0 m | 309003 | 309303 |
| 3.0 m | 309005 | 309305 |
| 4.0 m | 309006 | 309306 |
| 5.0 m | 309007 | 309307 |
| 7.0 m | 309009 | 309309 |
| 10.0 m | 309011 | 309310 |

[^2]
# COPPER SOLUTIONS - 1 Ghit/s UTP 

## PATCH PANEIS

for RJ45 modules, Cat. 6, unshielded


KU 24x
Keystone patch panel, unloaded


CUP 24/8 Cat.6, with integrated RJ45 modules, unshielded


IDC termination tool 110

| Article No. | Description | Colour (similar to) | PU |
| :---: | :---: | :---: | :---: |
| 418021 | Patch panel KU 24x, 19"/1U, for 24x RJ45 Keystone module UTP (without modules) | grey, RAL 7035 | 1 pc. |
| 418022 | Patch panel KU 24x, 19/1U, for 24x RJ45 Keystone module UTP (without modules) | black, RAL 9005 | 1 pc . |
| 418005 | Patch panel CUP 24/8, Cat. 6, unshielded, with 24x RJ45 module | black, RAL 9005 | 1 pc |
| 185896 | IDC termination tool 110 (recommended for patch panels CSP and CUP) | blue/grey | 1 pc.. |

ACCESSORIES


| Article No. | Description | Colour (similar to) | PU |
| :---: | :---: | :---: | :---: |
| 195041 | Horizontal cable management unit, 1U | black | 1 pc . |
| 195042 | Horizontal cable management unit, 2 U | black | 1 pc. |
| 195043 | Horizontal cable management unit, 30 | black | 1 pc . |
| 195097 | 19" cable management panel, 1 U, five $40 \times 80 \mathrm{~mm}$ rings | black | 1 pc . |
| 195098 | 19" cable management panel, 20 , five $80 \times 60 \mathrm{~mm}$ rings | black | 1 pc . |
| 195220 | 19" cable management panel, 10 , five $40 \times 50 \mathrm{~mm}$ rings | black | 1 pc . |
| 195221 | 19" cable management panel, 2 U, five $80 \times 80 \mathrm{~mm}$ rings | black | 1 pc . |
| 195184 | 19" blank plate, tool-less, 1 U | black, RAL 7035 | 1 pc . |
| 195185 | 19" blank plate, too--less, 2 L | black, RAL 7035 | 1 pc . |
| 195186 | 19" blank plate, tool-less, 3 U | black, RAL 7035 | 1 pc . |
| 418010 | Blank covers for unused KS openings in patch panels | black | 10 pcs . |
| 418011 | Blank covers for unused KS openings in patch panels | white | 10 pcs. |

For more accessories please visit our website

## FACEPLATES for RJ45 modules



## COPPER SOLUTIONS <br> Pre-assembled trunk cables

## COPPER TRUNKS

## Connectors \& cable types

Pre-assembled trunk cables are fabricated using high-performance cable products which are supplied in combination with different performance levels of modules and connectors.

The products are delivered in the lengths requested by the customer and have already been tested and certified in accordance with the latest standards.

This provides installers and operators, particularly in data centers, with products which make it
 possible to install even extensive copper-based systems to the highest quality in a very short time.

Tailor-made pre-terminated copper trunk assemblies, in the requested lengths, with customized imprints on the single cables, with the requested modules or plugs, $100 \%$ pre-tested, with measurement reports!

Modules and plugs for trunks

| type | application | construction | compatible with cable |
| :---: | :---: | :---: | :---: |
| $\underline{\text { Category } 6_{\mathrm{A}} \text { modules / Class } \mathrm{E}_{\mathrm{A}}}$ |  |  |  |
| (1) RJ45 module KS-TC Plus 1/8 Cat. $6_{\text {A }}$ (IEC) | up to 10GBase-T | shielded | flex / solid |
| 13 RJ45 module KS-T Plus 1/8 Cat. $6_{\text {A }}$ (IEC) | up to 10GBase-T | shielded | flex / solid |

Category $6 / 6_{\mathrm{A}}$ plugs / Class $\mathrm{E}_{\mathrm{A}}$
RJ45 plug 4P Cat. 6A $\quad$ up to 10GBase-T $\quad$ shielded $\quad$ flex

Cable types for trunks

| type | max. Class | application | $\varnothing[\mathrm{mm}]$ | max. length [m] |
| :---: | :---: | :---: | :---: | :---: |
| Flexible tube/braid cables |  |  |  |  |
| 3 -fold - CU 7702 3x4P flex | F | min. 10GBase-T | 12 | 60 |
| 6 -fold $\quad$ CU $77026 \times 4 \mathrm{P}$ flex | F | min. 10GBase-T | 20 | 60 |
| 8 -fold $\quad$ CU $77028 \times 4 \mathrm{P}$ flex | F | min. 10GBase-T | 22 | 60 |
| 12-fold | F | min 10GBase-T | 27 | 60 |
| 16-fold CU $770216 \times 4 \mathrm{P}$ flex | F | min. 10GBase-T | 32 | 60 |

## OOPPER SOLUTIONS <br> Pre-assembled trunk cables

## Length determination \& design

of pre-assembled copper trunks


Dimensions
Flexible cable 12 -fold
CU 7702 12x4P flex


Solid cable 6-fold
CU 7002 6x4P


Flexible cable 6-fold
CU 7702 6x4P flex


Rack A


## Length definition

The following criteria are decisive for all pre-assembled Datwyler copper trunks:
$\mathbf{L}=$ Length between dividers / fixing points (= purchase order length)
A = Type of assembly side A:
as required / depending on application,
legs graded in length or of equal length
$\mathbf{B}=$ Type of assembly side B:
as required / depending on application,
legs graded in length or of equal length

## COPPER SOLUTIONS <br> Consolidation Point and Floor box inserts

## CONSOLIDATION POINT BOXES

CP box for one 24-port front plate

W $\times \mathrm{H} \times \mathrm{D}: 480 \times 55 \times 190 \mathrm{~mm}$ (with lock: $\mathrm{H}=57 \mathrm{~mm}$ )

CP box for one 12-port front plate
$\mathrm{W} \times \mathrm{H} \times$ D: $260 \times 55 \times 190 \mathrm{~mm}$ (with lock: $\mathrm{H}=57 \mathrm{~mm}$ )


## CP box for one 6-port front plate

$\mathrm{W} \times \mathrm{H} \times \mathrm{D}: 156 \times 55 \times 190 \mathrm{~mm}$ (with lock: $\mathrm{H}=57 \mathrm{~mm}$ )

## Application

For the termination of data cables in a Consolidation Point (CP), typically installed in raised floors.


## Suitable for the following Datwyler Keystone modules:

PS-GG45 7 4P,
KS-TC Plus, KU-TC Plus, KS-T Plus 1/8, KS-TS 1/8,
KU-T 1/8, KS-T 5 1/8

| Article No. | Description | Material | PU |
| :---: | :---: | :---: | :---: |
| 417489 | Consolidation Point box, 24 ports (delivery without front plate) | steel sheet, galvanized | 1 pc. |
| 417490 | Front plate FP 24x MGK for 24-port CP box | steel sheet, galvanized | 1 pc |
| 417483 | Consolidation Point box, 12-port (delivery without front plate) | steel sheet, galvanized | 1 pc . |
| 417484 | Front plate FP $12 \times$ MGK for CP box 12-port | steel sheet, galvanized | 1 pc |
| 417487 | Consolidation Point box 6-port (delivery without front plate) | steel sheet, galvanized | 1 pc . |
| 417488 | Front plate FP $6 \times$ MGK for CP box 6-port | steel sheet, galvanized | 1 pc. |
| 417485 | Lock for Consolidation Point box, keyed alike | steel sheet, galvanized | 1 pc. |

## FLOOR BOX INSERTS

## Floor box inserts Economy

for Keystone modules MS-K, GG45, KS-T, KU-T

## Description

Floor box inserts Economy for Keystone modules.
Modules can be clipped into the cut-outs directly
(without additional adapter plates).
Cut-out (port) dimensions: $14.8 \times 19.3 \mathrm{~mm}$.
Suitable for the following Datwyler Keystone modules:
PS-GG45 7 4P,
KS-TC Plus, KU-TC Plus, KS-T Plus 1/8, KS-TS 1/8, MS-K Plus,
KU-T $1 / 8$, KS-T $51 / 8$


| Article No. | Description | PU |
| :---: | :---: | :---: |
| 418400 | Floor box insert Economy for OBO-Ackermann GES6, for $2 \times 3$ Keystone modules | 1 pc . |
| 418401 | Floor box insert Economy for OBO-Ackermann GES9, for $3 \times 3$ Keystone modules | 1 pc . |
| 418402 | Floor box insert Economy for Electraplan, for $2 \times 3$ Keystone modules | 1 pc . |
| 418403 | Floor box insert Economy for Electraplan, for $3 \times 3$ Keystone modules | 1 pc . |
| 418404 | Floor box insert Economy for PUK, for 3x 3 Keystone modules | 1 pc . |
| 1409559 | Blank plate for unused Keystone cut-out (port) | 1 pc . |

## ACCESSORIES

## RJ45 couplers, shielded

## Application

Suitable for setting up Consolidation Points and Cross-Connect wirings.
For the transmission of all digital and analogue
applications up to Cat. $6_{A} /$ Class $^{E_{A}}$.
Angled or straight.


MS-KS, $90^{\circ}$ angled:
MS port (left side),
Keystone port (right side)


Keystone, $180^{\circ}$ straight: Keystone ports on both sides

Field assembly plugs, IP20
Cat. $6_{\mathrm{A}}$, angled or straight


RJ45 plug IP20, Cat. $6_{A^{\prime}}$ shielded, $180^{\circ}$ straight, for field assembly

| Article No. | Description | Colour/material | PU |
| :---: | :---: | :---: | :---: |
| 417445 | RJ45 coupler, MS-KS, Class E A $^{\prime}$, shielded, $90^{\circ}$ angled | metal | 1 pc . |
| 417446 | RJ45 coupler, MS-KS, Class En ${ }_{\text {, shielded, }} 180{ }^{\text {a }}$ straight | metal | 1 pc |
| 418056 | RJ45 coupler, Keystone, Class En, shielded, 180 straight | metal | 1 pc. |
| 418078 | RJ45 plug, IP20, Cat.6, shielded, $90{ }^{\circ}$ angled, for field assembly | metall | 1 pc |
| 417523 | R445 plug, IP20, Cat. A $^{\text {d }}$ shielded, $180{ }^{\text {a }}$ straight, for field assembly | metall | 1 pc |

## Rail adapters



Rail adapter Keystone IP20


Rail adapter Keystone

| Article No. | Description | Rail adapter Keystone IP20 for 1 module with Keystone fitting (delivery without module) |
| :--- | :--- | :--- | Colour/material

# GOPPER SOLUTIONS Systems with IP protection class 

AP Outlet, IP44
surface/duct mounted
for 2 modules


IP44 outlet for 2 Keystone modules, lockable


IP44 outlet for 2 Keystone modules

| Article No. | Description | Colour/material | PU |
| :---: | :---: | :---: | :---: |
| 417503 | AP outlet, IP44, surface/duct mounted, for 2 Keystone modules, lockable (delivery without modules) | light grey/polymer | 1 pc . |
| 417510 | AP outlet, IP44, surface/duct mounted, for 2 Keystone modules (delivery without modules) | light grey/polymer | 1 pc |

## AP Outlet, IP67

surface mounted
for 1 or 2 modules


IP67 outlet for 1 RJ45 module


IP67 outlet for 2 RJ45 modules

| Article No. | Description | Colour/material | PU |
| :---: | :---: | :---: | :---: |
| 417530 | AP outlet, IP67, for 2 modules (delivery without modules) | silver grey/aluminium | 1 pc. |
| 417533 | AP outlet, IP67, for 1 module (delivery without modules) | silver grey/aluminium | 1 pc |

## Cable gland with pressure compensation via built-in diaphragm

## Description

For the operation of enclosures (IP66/IP67) in environments
with changing temperature conditions (e.g. outdoors).
Avoids condensation inside the enclosure (e. g. housing 417530, 417533)

| Article No. | Description |
| :--- | :--- |
| 417534 | Cable gland M16, IP68 |

## IP67 Outlets

surface mounted \& in-device installation with 1 RJ45 module MS-C6A


IP67 data outlet


IP67 coupling socket


IP767 mounting flange


RJ45 IP67 plug body to assemble patch cables

| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 309155 | Data outlet, IP67, with 1 RJ45 module MS-C6 ${ }_{\text {A }}$ | light grey, RAL 7035 | 1 pc . |
| 309156 | Coupling socket, IP67, with 1 RJ45 module MS-C6 ${ }_{\text {A }}$ | light grey, RAL 7035 | 1 pc |
| 309157 | Mounting flange, IP67, with 1 RJ45 module MS-C6 | light grey, RAL 7035 | 1 pc . |
| 417520 | RJ45 plug, IP67, Cat.5/5e shielded, for field assembly | light grey, RAL 7035 | 1 pc . | <br> \title{

FIBRE OPIIG SOLUTIONS
} <br> \title{
FIBRE OPIIG SOLUTIONS
}


## Condusive fibre optic systems

Datwyler, as an experienced and innovative cable manufacturer, supplies complete fibre optic cabling solutions - including services and support in the areas of consultation, planning, engineering, design, development, training, installation and documentation, if requested.

Datwyler has a comprehensive offering of fibre optic cables and components for high-density, high-speed data network solutions.

Our solutions are designed, overall and in detail, to fully meet the demands of the future. They are adapted to meet customer's needs and ensure a network infrastructure that will support future applications for a long time to come.

## FIBRE OPTIG SOLUTIONS

## PREMISES NETWORKS



## Application spaces

From a communications pathway perspective, premises networks consist of four primary sections:

Backbone (Campus) OS2, OM3, OM4
Data Centre OS2, OM3, OM4, OM5
Riser OS2, OM3, OM4
Horizontal (Desk) OM3
The premises network outlined on the right side, or portions thereof, may also be called a local area network (LAN) or enterprise network.

## Top 5 design considerations

- Link length
- Application
- Future performance
- Power budget
- Environmental requirements


## Two major fibre classifications

The two major classifications of optical fibre are single-mode and multimode.

## SINGIE-MODE FIBRE

Single-mode fibres are best suited for longer distance applications (>1 km). Single-mode fibre is designed to carry only one mode of light, and thus does not experience modal dispersion like multimode fibre.


Single-mode E9/125

Optical single-mode fibre cable transmission performance parameters

| Classification | Optical fibre type | Application | Wavelenght [nm] | Maximum attenuation [dB/km] | Maximum attenuation Datwyler G.652.D (OS2) [dB/km] | Maximum attenuation Datwyler G.652.D (BLO) (OS2 bend optimized) [dB/km] |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ITU-T G.652.D | Single-mode | Backbone (Campus) | 1310 | 0.4 | 0.34 | n/a |
| OS2 |  | Data Centre | 1550 | 0.3 | 0.21 | n/a |
| ITU-T G.652.D (BLO) | Single-mode | Backbone (Campus) | 1310 | 0.4 | n/a | 0.34 |
| OS2 bend optimized |  | Data Centre | 1550 | 0.3 | $\mathrm{n} / \mathrm{a}$ | 0.21 |

[^3]
## MULTIMODE FIBRE

Multimode fibres are suitable for premises applications where the links are a few hundred meters long and there are many connectors. The larger core diameter of multimode fibre allows the use of affordable 850 nm transmittor diodes as well as low-cost connectors. Multimode fibre uses a graded index profile to minimize modal dispersion. This design maximizes bandwidth while maintaining large cores for simplified system assembly and lower network costs. For multimode fibres, bandwidth is the major limiting factor in network design. This has led the industry to exploit the higher intrinsic bandwidth of 50/125 $\mu \mathrm{m}$ fibre when developing higherperformance multimode fibre systems.


Multimode G50/125

Optical multimode fibre cable transmission performance parameters

| Wavelength | [nm] | PRODUCT PARAMETERS |  | STANDARD SPEC. |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 850 | 1300 | 850 | 1300 |
| Attenuation typical (cabled) | [dB/km] | 2.4 | 0.6 |  |  |
| Attenuation maximum (cabled) | [dB/km] | 2.7 | 0.7 | 3 | 1.5 |
| OFL bandwidth as per TIA/EIA 455-204 and IEC 60793-1-41 | [MHzxkm] | 3500 | 500 | 3500 | 500 |
| High-Performance EMB bandwidth as per TIA/EIA 455-220A and IEC 60793-1-49 | [MHzxkm] | 4700 |  | 4700 |  |
| Refractive Index |  | 1.482 | 1.477 |  |  |

The fibre designation (OM3 up to OM5) corresponds to the designation of ISO/IEC 11801 or EN 50173.
Laser-optimised fibres are defined by their Effective Modal Bandwidth (minEMB, 850 nm VCSEL laser).

## Multimode fibre link lenghts and data rates

Although fibre bandwidth is a critical factor in determining link length and data rate, it is not the only one. Transmitter and receiver characteristics are as important as fibre bandwidth in determining supportable link lengths at specified data rates. At high data rates ( $40 / 100 \mathrm{Gbit} / \mathrm{s}$ ) also the attenuation of the connectors limit the link length.

## Bend optimized multimode fibres (G50/125)

With higher bit-rate transmissions ( $\geq 10 \mathrm{Gbit} / \mathrm{s}$ ) the attenuation budgets are constantly decreasing.
Thus, one has to focus on high-grade products when selecting the fibre optic components.
The optical fibres should provide an enhanced transmission reliability and reduce the risks of additional losses that may arise as a result of typical faulty use and of mechanical stress.
This is the reason why Datwyler use the bend optimized G50/125 fibre for OM3 up to OM5 fibre categories: In case that the minimum bending radius is undercut, this leads not necessarily to failure of a connection.
However, too small bending radii should be avoided to extend the lifetime of fibre optic cables (and optical fibres).
The bend optimized G50/125 fibres are fully compatible with "traditional" G50/125 fibres as described in the standard.

## FIBRE OPTIG SOLUTIONS <br> Cables

## FIBRE OPTIC CABLES

## FO Indoor J-B(ZN)BH

for indoor use
metal-free, dry interstices,
gel-free loose tube, rodent protection,
flame retardant


FO Indoor ZGGFR, up to 12 fibres

| J-B(ZN)BH | nxm | Fibres | Article No. | Article No. | Article No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Description |  | number | E9/125 G.652.D BLO sheath colour: yellow | G50/125 OM3 sheath colour: turquoise | G50/125 OM4 sheath colour: heather violet |
| FO Indoor ZGGFR | $1 \times 4$ | 4 | 19603100DZ | 19603300DZ | 19603600DZ |
| FO-Indoor ZGGFR | $1 \times 6$ | 6 | 19605700 DZ | 19605800 DZ | 19605900 DZ |
| FOIndoor ZGGFR | $1 \times 8$ | 8 | 19603200DZ | 19603400DZ | 19603700DZ |
| FOTIndoor ZGGFR | $1 \times 12$ | 12 | 19456300 DZ | 19603500 DZ | 19597400 DZ |

The " $D$ "in these article numbers stands for Euroclass $D_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with $C l a s s ~_{c a} C_{c a}$ or even $B 2_{c a}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com.

FO Indoor szGGFR, 24-144 fibres

| J-B(ZN)BH | nxm | Fibres | Article No. | Article No. | Article No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Description |  | number | E9/125 G.652.D BLO sheath colour: yellow | G50/125 OM3 sheath colour: turquoise | G50/125 OM4 <br> sheath colour: heather violet |
| FO Indoor szGGFR | $2 \times 12$ | 24 | 19456400DZ | 19605300DZ | 19602500DZ |
| FO Indoor SzGGFR | $4 \times 12$ | 48 | 19456600DZ | 19605400DZ | 19602600DZ |
| FOIndoor szGGFR | $8 \times 12$ | 96 | 19602900DZ | 19605500 DZ | 19602700DZ |
| FO Indoor szGGFR | $12 \times 12$ | 144 | 19596800DZ | 19605600DZ | 19602800DZ |

The " $D^{\prime \prime}$ in these article numbers stands for Euroclass $D_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with Class $C_{c a}$ or even $B_{c a}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com.

## FO Indoor FTTH / I-M(ZN)H

$2.2 \mathrm{~mm}, \mathrm{LSOH}$, for indoor use
coating buffer, flame retardant
in accordance with IEC 60794-2-20

| I-M(ZN)H <br> Description | Fibres <br> number | Article No. <br> E9/125 G.652.D BLO <br> sheath colour: yellow |
| :--- | :--- | :--- |

FO Indoor FTTH 4 19455000DZ

The " $D^{\prime \prime}$ in these article numbers stands for Euroclass $D_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with Class $C_{c a}$ or even $B 2_{c a}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com.

## FO Universal U-DQ(ZN)BH

For indoor and outdoor use
metal-free, dry interstices,
rodent protection, flame retardant,
in accordance with IEC 60332.1and IEC 60332.3 C


FO Universal U-DQ(ZN)BH $1 \times \mathrm{m}, \leq 24$ fibres


FO Universal U-DQ(ZN)BH $2 \times 12$, 24 fibres


FO Universal U-DQ(ZN)BH n x m, 36-144 fibres

## FO Universal ZGGFR, $\leq 24$ fibres



FO Universal wbGGFR, 36-144 fibres

| $\begin{aligned} & \text { U-DQ(ZN)BH } \\ & \text { Description } \\ & \hline \end{aligned}$ | $\mathrm{n} \times \mathrm{m}$ | Fibres <br> number | Article No. E9/125 G.652.D BLO | Article No. G50/125 OM3 | Article No. G50/125 OM4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FO Universal wbGGFR | $3 \times 12$ | 36 | 19020700EZ | on request | 19267800EZ |
| FO Universal wbGGFR | $4 \times 12$ | 48 | 19020800EZ | 18648600 EZ | 19127800 EZ |
| FO Universal wbGGFR | $5 \times 12$ | 60 | 19020900EZ | $18664200 E Z$ | on request |
| FO Universal wbGGFR | $6 \times 12$ | 72 | 19021000EZ | 18653900 EZ | on request |
| FO Universal wbGGFR | $8 \times 12$ | 96 | 18674700 EZ | 18654000 EZ | 19271400 EZ |
| FO Universal wbGGFR | $10 \times 12$ | 120 | 19021100EZ | 18653600 EZ | on request |
| FO Universal wbGGFR | $12 \times 12$ | 144 | 19021200 EZ | 19171000 EZ | 19271500EZ |

The " $E$ " in these article numbers stands for Euroclass $E_{c a}$.
Also available with sheath colour according to fibre type (OS2 = yellow, $\mathrm{OM} 3=$ turquoise, $\mathrm{OM} 4=$ violet, $\mathrm{OM} 5=$ lime) on request.

## FIBRE OPTIO SOLUTIONS <br> Cables

## FO Universal DLTS U-BQ(ZN)BH

for indoor and outdoor use
metal-free, dry interstices, gel-free loose tube,
rodent protection, flame redardant,
longitudinally watertight


FO Universal DLTS U-BQ(ZN)BH, n x m, 12-144 fibres

FO Universal DLTS ZGGFR, $\leq 24$ fibres

| U-BQ(ZN)BH $1 \times \mathrm{m}$ | Fibres | Article No. | Article No. | Article No. | Article No. | Article No. | Article No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Description | number | E9/125 G.652.D BLO (sheath colour: yellow) |  |  | G50/125 OM3 (sheath colour: turquoise) |  |  |
| Euroclasses |  | $\mathrm{D}_{\mathrm{ca}}$ | $\mathrm{C}_{\text {ca }}$ | B2ca | $\mathrm{D}_{\mathrm{ca}}$ | $\mathrm{C}_{\text {ca }}$ | B2ca |
| FO Universal DLTS $1 \times 4$ | 4 | 19706600DZ | 19706600CZ | 19706600BZ | 19708000DZ | 19708000CZ | 19708000BZ |
| FO Universal DLTS $1 \times 6$ | 6 | 19706700DZ | $19706700 B Z$ | $19706700 B Z$ | 19708100DZ | 19708100 CZ | $19708100 B Z$ |
| FO Universal DLTS $1 \times 8$ | 8 | 19706800DZ | 19706800CZ | 19706800 BZ | 19708200DZ | 19708200CZ | 19708200BZ |
| FO Universal DLTS $1 \times 12$ | 12 | 19618100DZ | 19618100CZ | 19618100 BZ | 19708300 DZ | 19708300 CZ | $19708300 B Z$ |
| FOUniversal DLTS $1 \times 24$ | 24 | 19618200DZ | 19618200 CZ | 19618200 BZ | 19708400DZ | 19708400CZ | 19708400BZ |
| Description | number | G50/125 OM4 (sheath colour: heather violet) |  |  | G50/125 OM5 (sheath colour: lime) |  |  |
| Euroclasses |  | D ${ }_{\text {ca }}$ | $\mathrm{C}_{\text {ca }}$ | B2ca | $\mathrm{D}_{\mathrm{ca}}$ | $\mathrm{C}_{\text {ca }}$ | B2ca |
| FO Universal DLTS $1 \times 4$ | 4 | 19708500DZ | 19708500CZ | 19708500BZ | on request | on request | on request |
| FO Universal DiTS $1 \times 6$ | 6 | 19708600 DZ | 19708600 CZ | 19708600 BZ | on request | on request | on request |
| FO Universal DLTS $1 \times 8$ | 8 | 19708700DZ | 19708700 CZ | 19708700 BZ | on request | on request | on request |
| FO Universal DLTS $1 \times 12$ | 12 | 19618500DZ | 19618500 CZ | 19618500 BZ | 19706400DZ | 19706400CZ | 19706400BZ |
| FO Universal DLTS $1 \times 24$ | 24 | 19618600DZ | 19618600 CZ | $19618600 B Z$ | 19706500DZ | 19706500 CZ | 19706500BZ |

## FO Universal DLTS wbGGFR, 12-144 fibres

| U-BQ(ZN)BH nxm <br> Description | Fibres <br> number | Article No. E9/125 G.652. | Article No. (sheath colour | Article No. , | Article No. G50/125 OM3 | Article No. <br> h colour: turq | Article No. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Euroclasses |  | D ${ }_{\text {ca }}$ | Cca | B2ca | Dca | $\mathrm{C}_{\mathrm{ca}}$ | B2ca |
| FO Universal DLTS $1 \times 12$ | 12 | 19710100DZ | 19710100CZ | 19710100BZ | on request | on request | on request |
| FO Universal DLTS $2 \times 12$ | 24 | 19618300DZ | 19618300CZ | 19618300BZ | 19710600DZ | 19710600CZ | 19710600BZ |
| FO Universal DLTS $4 \times 12$ | 48 | 19618400 DZ | 196184000 CZ | 19618400BZ | 19710700DZ | 19710700CZ | 19710700BZ |
| FO Universal DLTS $6 \times 12$ | 72 | 19710200DZ | 19710200CZ | 19710200BZ | on request | on request | on request |
| FO Universal DLTS $8 \times 12$ | 96 | 19710300DZ | 19710300CZ | 19710300BZ | 19710800DZ | 19710800CZ | 19710800BZ |
| FO Universal DLTS $10 \times 12$ | 120 | 19710400DZ | 19710400CZ | 19710400BZ | on request | on request | on request |
| FO Universal DLTS $12 \times 12$ | 144 | 19710500DZ | 19710500CZ | 19710500BZ | 19710900DZ | 19710900CZ | 19710900BZ |
| Description | number | G50/125 OM4 (sheath colour: heather violet) |  |  | G50/125 OM5 (sheath colour: lime) |  |  |
| Euroclasses |  | $\mathrm{D}_{\mathrm{ca}}$ | $\mathrm{C}_{\text {ca }}$ | B2ca | $\mathrm{D}_{\mathrm{ca}}$ | $\mathrm{C}_{\text {ca }}$ | B2ca |
| FO Universal DLTS $1 \times 12$ | 12 | on request | on request | on request | on request | on request | on request |
| FO Universal DLTS $2 \times 12$ | 24 | 19618700DZ | 19618700CZ | 19618700BZ | 19706900DZ | 19706900DZ | 19706900CZ |
| FO Universal DLTS $4 \times 12$ | 48 | 19618800 DZ | 19618800 CZ | $19618800 B Z$ | 19707000 CZ | 19707000 BZ | $19707000 B Z$ |
| FO Universal DLTS $6 \times 12$ | 72 | on request | on request | on request | on request | on request | on request |
| FO Universal DLTS $8 \times 12$ | 96 | 19708800DZ | 19708800CZ | 19708800BZ | on request | on request | on request |
| FO Universal DLTS $10 \times 12$ | 120 | on request | on request | on request | on request | on request | on request |
| FO Universal DLTS12x 12 | 144 | 19708900DZ | 19708900CZ | 19708900BZ | on request | on request | on request |

## FO Universal ... Safety / U-DQ(ZN)BH

Safety cables E30 for indoor and outdoor use
metal-free, water resistant, rodent protection,
in accordance with IEC 60332-1-2 and IEC 60332-3-24
30 minutes System Circuit Integrity
according to DIN 4102-12*


FO Universal ZGGFR Safety

| U-DQ(ZN)BH | $1 \times \mathrm{m}$ | Fibres | Article No. | Article No. | Article No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Description |  | number | E9/125 G.652.D | G50/125 OM3 | G50/125 OM4 |
| FO Universal ZGGFR Safety | $1 \times 4$ | 4 | 187288 | 190604 | 193447 |
| FO Universal ZGGFR Safety | $1 \times 6$ | 6 | 191867 | 191851 | 193448 |
| FO Universal ZGGFR Safety | $1 \times 8$ | 8 | on request | on request | 193449 |
| FOUniversal ZGGFR Safety | $1 \times 12$ | 12 | 190719 | 191796 | 193450 |

FO Universal wbGGFR Safety

| $\begin{aligned} & \text { U-DQ(ZN)BH } \\ & \text { Description } \\ & \hline \end{aligned}$ | $1 \times \mathrm{m}$ | Fibres <br> number | Article No. E9/125 G.652.D | Article No. G50/125 OM3 | Article No. G50/125 OM4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FO Universal wbGGFR Safety | $2 \times 12$ | 24 | 190223 | 187360 | 193454 |
| FO Universal wbGGFR Safety | $3 \times 12$ | 36 | 190224 | on request | 193455 |
| FO Universal wbGGFR Safety | $4 \times 12$ | 48 | 190225 | 191191 | 193456 |
| FO Universal wbGGFR Safety | $5 \times 12$ | 60 | 190226 | 190605 | 193457 |

[^4]
## FIBRE OPIIG SOLUTIONS Cables

## FO Outdoor ZGGT HP / A-DQ(ZN)B2Y HighP

central tube design, non metallic,
water resistant, rodent protection

## FO Outdoor wbGGT HP / A-DQ(ZN)B2Y HighP

non metallic, dry interstices,
water resistant, rodent protection
FO Outdoor wbGGT SMALL / A-DQ(ZN)B2Y
Small, 2-layer
non metallic, dry interstices,
water resistant, rodent protection


FO Outdoor wbGGT HP / A-DQ(ZN)B2Y, n x m, 12-576 fibres


FO Outdoor wbGGT HP / A-DQ(ZN)B2Y, n x m, 12-576 fibres

FO Outdoor ZGGT HP, $\leq 24$ fibres

| A-DQ(ZN)B2Y <br> Description | 1 xm | Fibres <br> number | Article No. <br> E9/125 G.652.D | Article No. G50/125 OM3 | Article No. G50/125 OM4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FO Outdoor ZGGT HP | $1 \times 4$ | 4 | 19016600FZ | 19112100FZ | 19608900FZ |
| FO Outdoor ZGGT HP | $1 \times 6$ | 6 | $19016700 F Z$ | 19074700FZ | on request |
| FO Outdoor ZGGT HP | $1 \times 8$ | 8 | 19016800FZ | on request | on request |
| FO Outdoor ZGGT HP | $1 \times 12$ | 12 | 19016900FZ | 18636100FZ | 19261000FZ |
| FO Outdoor ZGGT HP | $1 \times 24$ | 24 | 19014900FZ | 19264500FZ | 19216700FZ |

FO Outdoor wbGGT HP, 12-576 fibres

| A-DQ(ZN)B2Y <br> Description | nx m | Fibres number | Article No. E9/125 G.652.D | Article No. <br> G50/125 OM3 | Article No. <br> G50/125 OM4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FO Outdoor wbGGT HP | $1 \times 12$ | 12 | 19005900FZ | 19065100FZ | on request |
| FO Outdoor wbGGT HP | $2 \times 12$ | 24 | $18674800 F Z$ | 19036800FZ | 19444400FZ |
| FO Outdoor wbGGT HP | $3 \times 12$ | 36 | 19005800FZ | on request | on request |
| FO Outdoor wbGGT HP | $4 \times 12$ | 48 | 18738500FZ | 19036900FZ | on request |
| FO Outdoor wbGGT HP | $5 \times 12$ | 60 | 19017100FZ | on request | on request |
| FO Outdoor wbGGT HP | $6 \times 12$ | 72 | 19017200FZ | on request | on request |
| FO Outdoor wbGGT HP | $8 \times 12$ | 96 | $18676000 F Z$ | on request | on request |
| FO Outdoor wbGGTHP | $10 \times 12$ | 120 | 19017500FZ | 19269700FZ | on request |
| FO Outdoor wbGGT HP | $12 \times 12$ | 144 | 18739400FZ | 19031100FZ | on request |
| FO Outdoor wbGGT HP | $6 \times 24$ | 144 | 19076400FZ | on request | on request |
| FO Outdoor wbGGT HP | $8 \times 24$ | 192 | 19127000 FZ | on request | on request |
| FO Outdoor wbGGT HP | $9 \times 24$ | 216 | $19069600 F Z$ | on request | on request |
| FO Outdoor wbGGT HP | $12 \times 24$ | 288 | 19032500FZ | on request | on request |
| FO Outdoor wbGGT HP | $18 \times 24$ | 432 | 19017800FZ | on request | on request |

FO Outdoor wbGGT SMALL, $\leq 24$ fibres

| A-DQ(ZN)B2Y | nx m | Fibres | Article No. |
| :---: | :---: | :---: | :---: |
| Description |  | number | E9/125 G.652.D |
| FO Outdoor wbGGT SMALL | $18 \times 24$ | 432 | 19261900FZ |

## FO patch panel OV-E, 19"/1U, loaded

## Splice box with shelf for excess tube lengths

 below the drawerFor the termination of fibre optic cables - maximum of 48 fibres. Loaded with FO adapters, ready for splicing, with prepared pigtails (per 2 m, colour code: IEC 60304).
Telescopic, folding drawer with stop.
Shelf for excess tube lengths below the drawer.
Cable mounting plate at the rear.
Splice cassettes are hinged, can be easily folded up.


Splice box OV-E, 19"/1U, extractable configuration example with 12 LC Duplex adapters APC and 24 pigtails


| Article No. | Product | Color front plate | Number of adapters | Adapter | Colour adapter | Fibre <br> type | Pigtail type, length |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41516002ZY | Splice box OV-E, extractable, 1 U | aluminium | 6 | LCD | blue | E9/125 G.652.D, OS2 | $12 \times \mathrm{LC}, 2 \mathrm{~m}$ |
| 41516402ZY | Splice box OV-E, extractable, 1 U | aluminium | 12 | LCD | blue | E9/125 G.652.D, OS2 | $24 \times 1$ LC 2 m |
| 41516802ZY | Splice box OV-E, extractable, 1 U | aluminium | 24 | LCD | blue | E9/125 G.652.D, OS2 | $48 \times \mathrm{LC}, 2 \mathrm{~m}$ |
| 41516102ZY | Splice box OV-E, extractable, 1 U | aluminium | 6 | LCD/APC | green | E9/125 G.652.D, OS2 | $12 \times$ LC/APC, 2 m |
| 41516502ZY | Splice box OV-E, extractable, 1 U | aluminium | 12 | LCD/APC | green | E9/125 G.652.D, OS2 | 24x LC/APC, 2 m |
| 41516902ZY | Splice box OV-E, extractable, 1 U | aluminium | 24 | LCD/APC | green | E9/125 G.652.D, OS2 | $48 \times$ LC/APC, 2 m |
| $41517202 Z Y$ | Splice box OV-E, extractable, 1 U | aluminium | 6 | LSH/APC | green | E9/125 G.652.D, OS2 | 6xLSH/APC, 2 m |
| 41517302ZY | Splice box OV-E, extractable, 1 U | aluminium | 12 | LSH/APC | green | E9/125 G.652.D, OS2 | $12 \times$ LSH/APC, 2 m |
| 41517402ZY | Splice box OV-E, extractable, 1 U | aluminium | 24 | LSH/APC | green | E9/125 G.652.D, OS2 | $24 \times$ LSH/APC, 2 m |
| $41517502 Z Y$ | Splice box OV-E, extractable, 1 U | aluminium | 24 | LSH-C/APC | green | E9/125 G.652.D, OS2 | $48 \times$ LSH/APC, 2 m |
| 41516202ZY | Splice box OV-E, extractable, 1 U | aluminium | 6 | LCD | turquoise | G50/125, OM3 | $12 \times 152 \mathrm{~m}$ |
| 41516602ZY | Splice box OV-E, extractable, 1 U | aluminium | 12 | LCD | turquoise | G50/125, OM3 | $24 \times 10.2 \mathrm{~m}$ |
| 41517002 ZY | Splice box OV-E, extractable, $1 \cup$ | aluminium | 24 | LCD | turquoise | G50/125, OM3 | $48 \times \mathrm{LC}, 2 \mathrm{~m}$ |
| 41516302ZY | Splice box OV-E, extractable, 1 U | aluminium | 6 | LCD | violet | G50/125, OM4 | $12 \times 1$ LC, 2 m |
| 41516702ZY | Splice box OV-E, extractable, 1 U | aluminium | 12 | LCD | violet | G50/125, OM4 | $24 \times 1$ LC, 2 m |
| 41517102ZY | Splice box OV-E, extractable, 1 U | aluminium | 24 | LCD | violet | G50/125 OM4 | $48 \times 14 \mathrm{LC}$ m |

## FIBRE OPTIG SOLUTIONS <br> Patch panels

## FO patch panel OV-S, 19"/1U, loaded Splice box with adapters and pigtails

For the termination of fibre optic cables - maximum of 96 fibres.
Drawer extractable.
Front panel numbered.
Loaded with FO adapters, ready for splicing, with prepared pigtails (per 2 m, colour code: IEC 60304).


Splice box OV-S, 19"/1U, extractable,
configuration example with 24 LCD/APC adapters and 48 pigtails

19"/1U splice box, E9/125 G.652.D, OS2

| Article No. | Product | Colour front plate | Number of adapters | Adapter | Colour adapter | Fibre <br> type | Pigtail <br> type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41521000ZY | Splice box OV-S | light grey | 6 | LCD | blue | E9/125 G.652.D, OS2 | $12 \times$ LC |
| $41535700 Z \mathrm{ZY}$ | Splice box OV-S | black | 6 | LCD | blue | E9/125 G.652.D, OS2 | $12 \times \mathrm{LC}$ |
| $41521400 Z \mathrm{Y}$ | Splice box OV-S | light grey | 12 | LCD | blue | E9/125 G.652.D, OS2 | $24 \times \mathrm{LC}$ |
| $41534100 Z \mathrm{YY}$ | Splice box OV-S | black | 12 | LCD | blue | E9/125 G.652.D, OS2 | $24 \times$ LC |
| $41521800 Z \mathrm{Y}$ | Splice box OV-S | light grey | 24 | LCD | blue | E9/125 G.652.D, OS2 | $48 \times \mathrm{LC}$ |
| $41533700 Z \mathrm{ZY}$ | Splice box OV-S | black | 24 | LCD | blue | E9/125 G.652.D, OS2 | 48x LC |
| 41522200ZY | Splice box OV-S | light grey | 6 | SCD | blue | E9/125 G.652.D,OS2 | $12 \times \mathrm{SC}$ |
| $41536400 Z \mathrm{ZY}$ | Splice box OV-S | black | 6 | SCD | blue | E9/125 G.652.D, OS2 | $12 \times 5$ |
| 41522600ZY | Splice box OV-S | light grey | 12 | SCD | blue | E9/125 G.652.D, OS2 | 24x SC |
| $41523000 Z \mathrm{YY}$ | Splice box OV-S | light grey | 24 | SCD | blue | E9/125 G.652.D, OS2 | $48 \times$ SC |
| $41538800 Z \mathrm{YY}$ | Splice box OV-S | black | 24 | SCD | blue | E9/125 G.652.D, OS2 | $48 \times$ SC |
| $41531300 Z \mathrm{ZY}$ | Splice box OV-S | light grey | 6 | LSH/APC | green | E9/125 G.652.D, OS2 | 6xLSH/APC |
| $41531500 Z \mathrm{Y}$ | Splice box OV-S | light grey | 12 | LSH/APC | green | E9/125 G.652.D, OS2 | $12 \times$ LSH/APC |
| $41531700 Z \mathrm{ZY}$ | Splice box OV-S | light grey | 24 | LSH/APC | green | E9/125 G.652.D, OS2 | 24x LSH/APC |
| 41544200ZY | Splice box OV-S | light grey | 12 | LCD/APC | green | E9/125 G.652.D, OS2 | $24 \times$ LC/APC |
| $41544300 Z \mathrm{Y}$ | Splice box OV-S | light grey | 24 | LCD/APC | green | E9/125 G.652.D, OS2 | $48 \times$ LC/APC |
| $41527500 Z \mathrm{Y}$ | Splice box OV-S | light grey | 24 | LCQ | blue | E9/125 G.652.D, OS2 | $96 \times 1$ LC |
| 41533100ZY | Splice box OV-S | black | 24 | LCQ | blue | E9/125 G.652.D, OS2 | $96 \times$ LC |
| 41523400ZY | Splice box OV-S | light grey | 6 | ST | metal | E9/125 G.652.D, OS2 | $6 \times \mathrm{ST}$ |
| 41523800ZZ | Splice box OV-S | light grey | 12 | ST | metal | E9/125 G.652.D, OS2 | $12 \times 5 T$ |
| $41524200 Z \mathrm{Y}$ | Splice box OV-- | light grey | 24 | ST | metal | E9/125 G.652.D, OS2 | $24 \times 5 T$ |

Variants on request.

19"/1U, Splice box, G50/125 OM4


Splice box OV-S, 19"/1U, extractable, configuration example with 24 LCD adapters and 48 pigtails

| Article No. | Product | Colour front plate | Number of adapters | Adapter | Colour adapter | Fibre type | Pigtail type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41534000ZY | Splice box OV-S | black | 6 | LCD | heather violet | G50/125 OM4 | $12 \times$ LC |
| $41521300 Z \mathrm{Y}$ | Splice box OV-S | light grey | 6 | LCD | heatherviolet | G50/125 OM4 | $12 \times \mathrm{LC}$ |
| $41531200 Z Y$ | Splice box OV-S | black | 12 | LCD | heatherviolet | G50/125 OM4 | $24 \times$ LC |
| $41521700 Z \mathrm{Y}$ | Splice box OV-S | light grey | 12 | LCD | heatherviolet | G50/125 OM4 | $24 \times$ LC |
| 41533000ZY | Splice box OV-S | black | 24 | LCD | heather violet | G50/125 OM4 | 48x LC |
| $41522100 Z \mathrm{Y}$ | Splice box OV-S | light grey | 24 | LCD | heather violet | G50/125 OM4 | 48x LC |
| $41533200 Z \mathrm{Y}$ | Splice box OV-S | black | 24 | LCQ | heather violet | G50/125 OM4 | 96x LC |
| 41529500ZY | Splice box OV-S | light grey | 24 | LCQ | heather violet | G50/125 OM4 | 96x LC |
| $41537300 Z Y$ | Splice box OV-S | black | 6 | LSH | heather violet | G50/125 OM4 | 6x LSH |
| $41532500 Z Y$ | Splice box OV-S | light grey | 6 | LSH | heather violet | G50/125 OM4 | $6 \times$ LSH |
| $41537600 Z Y$ | Splice box OV-S | black | 12 | LSH | heatherviolet | G50/125 OM4 | $12 \times$ LSH |
| $41532600 Z \mathrm{Y}$ | Splice box OV-S | light grey | 12 | LSH | heatherviolet | G50/125 OM4 | $12 \times$ LSH |
| $41537900 Z \mathrm{Y}$ | Splice box OV-S | black | 24 | LSH | heatherviolet | G50/125 OM4 | 24x LSH |
| $41532700 Z Y$ | Splice box OV-S | light grey | 24 | LSH | heather violet | G50/125 OM4 | 24x LSH |
| $41522500 Z \mathrm{Y}$ | Splice box OV-S | light grey | 6 | SCD | heather violet | G50/125 OM4 | $12 \times 5 \mathrm{C}$ |
| $41522900 Z \mathrm{Y}$ | Splice box OV-S | light grey | 12 | SCD | heather violet | G50/125 OM4 | $24 \times$ SC |
| $41523300 Z \mathrm{Y}$ | Splice box OV-S | light grey | 24 | SCD | heather violet | G50/125 OM4 | 48x SC |



Splice box OV-S, 19"/1U, extractable, configuration example with 24 LCD adapters and 48 pigtails

19"/1U splice box, G50/125 OM3

| Article No. | Product | Colour front plate | Number of adapters | Adapter | Colour <br> adapter | Fibre <br> type | Pigtail <br> type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41521200ZY | Splice box OV-S | light grey | 6 | LCD | turquoise | G50/125 OM3 | $12 \times$ LC |
| 41533600ZY | Splice box OV-S | black | 6 | LCD | turquoise | G50/125 OM3 | $12 \times \mathrm{LC}$ |
| 41521600ZY | Splice box OV-S | light grey | 12 | LCD | turquoise | G50/125 OM3 | $24 \times$ LC |
| 41522000ZY | Splice box OV-S | light grey | 24 | LCD | turquoise | G50/125 OM3 | $48 \times \mathrm{LC}$ |
| 41536100ZY | Splice box OV-S | black | 24 | LCD | turquoise | G50/125 OM3 | $48 \times$ LC |
| 41522400ZY | Splice box OV-S | light grey | 6 | SCD | turquoise | G50/125 OM3 | $12 \times \mathrm{SC}$ |
| 41533300 ZY | Splice box OV-S | black | 6 | SCD | turquoise | G50/125 OM3 | $12 \times \mathrm{SC}$ |
| 41522800ZY | Splice box OV-S | light grey | 12 | SCD | turquoise | G50/125 OM3 | 24x SC |
| 41523200ZY | Splice box OV-S | light grey | 24 | SCD | turquoise | G50/125 OM3 | 48x SC |
| 41531400ZY | Splice box OV-S | light grey | 6 | LSH | beige | G50/125 OM3 | 6xLSH |
| 41531600ZY | Splice box OV-S | light grey | 12 | LSH | beige | G50/125 OM3 | $12 \times$ LSH |
| 41531800ZY | Splice box OV-S | light grey | 24 | LSH | beige | G50/125 OM3 | 24x LSH |
| 41529800ZY | Splice box OV-S | light grey | 24 | LCQ | turquoise | G50/125 OM3 | $96 \times 1$ LC |
| 41523600ZY | Splice box OV-S | light grey | 6 | ST | metal | G50/125 OM3 | 6x ST |
| 41524000 ZY | Splice box OV-S | light grey | 12 | ST | metal | G50/125 OM3 | $12 \times 5 T$ |
| 41524400ZY | Splice box OV-S | light grey | 24 | ST | metal | G50/125 OM3 | $24 \times$ ST |

Variants on request.

## FO patch panel OV-S, 19"/1U, loaded

## Breakout box with adapters

Made of powder-coated sheet steel.
For the termination of pre-assembled fibre optic cables - maximum of 96 fibres.
Extractable drawer.
Numbered front panel (labeling strips as accessories / not for versions with LCQ adapters).
Loaded with a maximum of 24 FO adapters.


Breakout box OV-S, 19"/1U, extractable,
configuration example with 6 SCD adapters

## 19"/1U breakout box, E9/125 OS2

| Article No. | Product | Colour front plate | Number of adapters | Adapte | Colour adapter | Fibre <br> type | Housing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 441525000ZY | Breakout box OV-S | light grey | 6 | LCD | blue | E9/125 OS2 |  |
| 41542300ZY | Breakout box OV-S | black | 6 | LCD | blue | E9/125 OS2 |  |
| 41525400ZY | Breakout box OV-S | light grey | 12 | LCD | blue | E9/125 OS2 |  |
| 41542400ZY | Breakout box OV-S | black | 12 | LCD | blue | E9/125 OS2 |  |
| 41525800ZY | Breakout box OV-S | light grey | 24 | LCD | blue | E9/125 OS2 |  |
| 41526200ZY | Breakout box OV-S | light grey | 6 | SCD | blue | E9/125 OS2 |  |
| 41526600ZY | Breakout box OV-S | light grey | 12 | SCD | blue | E9/125 OS2 |  |
| 41527000 ZY | Breakout box OV-S | light grey | 24 | SCD | blue | E9/125 OS2 |  |
| $41531900 Z \mathrm{ZY}$ | Breakout box OV-S | light grey | 6 | LSH/APC | green | E9/125 OS2 |  |
| $41532100 Z \mathrm{ZY}$ | Breakout box OV-S | light grey | 12 | LSH/APC | green | E9/125 OS2 |  |
| $41532300 Z \mathrm{ZY}$ | Breakout box OV-S | light grey | 24 | LSH/APC | green | E9/125 OS2 |  |
| 41520700ZY | Breakout box OV-S | light grey | 24 | LCQ | blue | E9/125 OS2 |  |
| 415403 | Breakout box OV-S | light grey | 24 | LCQ | blue | E9/1250S2 | polymer |

# FIBRE OPTIG SOLUTIONS <br> Patch panels 



Breakout box OV-S, 19"/1U, extractable, configuration example with 6 SCD adapters

## 19"/1HE breakout box, G50/125 OM4

$\left.\begin{array}{llllll}\text { Article No. } & \text { Product } & \begin{array}{l}\text { Colour } \\ \text { front plate }\end{array} & \begin{array}{l}\text { Number } \\ \text { of adapters }\end{array} & \text { Adapter } & \begin{array}{l}\text { Colour } \\ \text { adapter }\end{array} \\ \hline 41547400 \text { ZY } & \text { Breakout box OV-S } & \text { light grey } & 6 & \text { Fibre } \\ \text { type }\end{array}\right]$


Breakout box OV-S, 19"/1U, extractable, configuration example with 6 SCD adapters

## 19"/1HE breakout box, G50/125 OM3

| Article No. | Product | Colour front plate | Number of adapters | Adapter | Colour adapter | Fibre type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41525200ZY | Breakout box OV-S | light grey | 6 | LCD | turquoise | G50/125 OM3 |
| 41542600ZY | Breakout box OV-S | black | 6 | LCD | turquoise | G50/125 OM3 |
| $41525600 Z \mathrm{Y}$ | Breakout box OV-S | light grey | 12 | LCD | turquoise | G50/125 OM3 |
| 41542800ZY | Breakout box OV-S | black | 12 | LCD | turquoise | G50/125 OM3 |
| $41526000 Z \mathrm{Y}$ | Breakout box OV-S | light grey | 24 | LCD | turquoise | G50/125 OM3 |
| $41543000 Z \mathrm{Y}$ | Breakout box OV-S | black | 24 | LCD | turquoise | G50/125 OM3 |
| $41526400 Z \mathrm{Y}$ | Breakout box OV-S | light grey | 6 | SCD | turquoise | G50/125 OM3 |
| 41543200ZY | Breakout box OV-S | black | 6 | SCD | turquoise | G50/125 OM3 |
| 41526800ZY | Breakout box OV-S | light grey | 12 | SCD | turquoise | G50/125 OM3 |
| $41533500 Z Y$ | Breakout box OV-S | black | 12 | SCD | turquoise | G50/125 OM3 |
| $41527200 Z \mathrm{Y}$ | Breakout box OV-S | light grey | 24 | SCD | turquoise | G50/125 OM3 |
| $41543500 Z \mathrm{Y}$ | Breakout box OV-S | black | 24 | SCD | turquoise | G50/125 OM3 |
| $41528000 Z \mathrm{Y}$ | Breakout box OV-S | light grey | 24 | LCQ | turquoise | G50/1250M3 |

Variants on request.


Shutter for SC Duplex


Shutter for LC Duplex and SC Simplex

| Article No. | Description | Fibre type | Cover material | Colour | PU |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1414887 | Shutter for SCD | SM | polymer | blue | 1 pc . |
| 1414888 | Shutter for SCD | SM | polymer | green | 1 pc. |
| 1414889 | Shutter for SCD | MM | polymer | beige | 1 pc |
| 414498 | Shutter for SCD | MM | polymer | turquoise | 1 pc. |
| 414499 | Shutter for SCD | MM | polymer | violet | 1 pc |
| 414494 | Shutter for LCD or SC simplex | SM | polymer | blue | 1 pc |
| 414495 | Shutter for LCD or SC simplex | SM | polymer | green | 1 pc |
| 414492 | Shutter for LCD or SC simplex | MM | polymer | beige | 1 pc. |
| 414493 | Shutter for LCD or SC simplex | MM | polymer | turqouis | 1 pc |
| 414496 | Shutter for LCD or SC simplex | MM | polymer | violet | 1 pc. |

Fibre optic couplers


SC Duplex


ST


LC Duplex with flange


LC Duplex without flange


LC/APC Quad

| Article No. | Coupler | Fibre type | Sleeve | Cover material | Colour | Mounting | 2 pieces M2 screws | PU |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1414886 | ST | MM/SM | ceramic | metal |  | D hole |  | 1 pc. |
| 418506 | SC/APC | SM | ceramic | polymer | green | flange | without | 1 pc |
| 418508 | SCD | MM | ceramic | polymer | beige | flange | without | 1 pc |
| 418509 | SCD | MM | PB | polymer | turqouis | flange | without | 1 pc |
| 418510 | SCD | MM | ceramic | polymer | turqouis | flange | without | 1 pc |
| 418532 | SCD | MM | ceramic | polymer | violet | flange | without | 1 pc . |
| 418511 | SCD | SM | ceramic | polymer | blue | flange | without | 1 pc |
| 418512 | SCD/APC | SM | ceramic | polymer | green | flange | without | 1 pc |
| 418513 | LCD | MM | ceramic | polymer | beige | flange | without | 1 pc |
| 418516 | LCD | MM | ceramic | polymer | turqouis | flange | without | 1 pc . |
| 418531 | LCD | MM | ceramic | polymer | violet | flange | without | 1 pc |
| 418514 | LCD | SM | ceramic | polymer | blue | flange | without | 1 pc |
| 418515 | LCD/APC | SM | ceramic | polymer | green | flange | without | 1 pc |
| 418525 | LCD | MM | ceramic | polymer | beige | without flange | without | 1 pc |
| 418526 | LCD | SM | ceramic | polymer | blue | without flange | without | 1 pc |
| 418527 | LCD/APC | SM | ceramic | polymer | green | without flange | without | 1 pc |
| 418528 | LCD | MM | ceramic | polymer | turqouis | without flange | without | 1 pc |
| 418533 1) | LCD | MM | ceramic | polymer | violet | without flange | without | 1 pc . |
| 418517 | LCQ | MM | ceramic | polymer | beige | flange | without | 1 pc |
| 418518 | LCQ | MM | ceramic | polymer | turqouis | flange | without | 1 pc |
| 418530 | LCQ | MM | ceramic | polymer | violet | flange | without | 1 pc . |
| 418519 | LCQ | SM | ceramic | polymer | blue | flange | without | 1 pc |
| 418520 | LCQ/APC | SM | ceramic | polymer | green | flange | without | 1 pc |
| 418522 | SCD | MM | ceramic | metal |  | flange | yes | 1 pc |
| 418523 | SCD | SM | ceramic | metal |  | flange | yes | 1 pc |
| 418524 | SCD/APC | SM | ceramic | metal |  | flange | yes | 1 pc |
| 418551 | LSH/APC-M | SM | ceramic | polymer | green | threaded flange | yes | 1 pc |
| 418553 | LSH | MM | ceramic | polymer | beige | threaded flange | yes | 1 pc |
| 418554 | LSH | MM | ceramic | polymer | turqouis | threaded flange | yes | 1 pc |
| 418555 | LSH | MM | ceramic | polymer | violet | threaded flange | yes | 1 pc |

[^5]
## FIBRE OPTIG SOLUTIONS

Patch corids and pigtails

Datwyler offers its patch cables with a broad range of connectors for individual customer needs. Please see our website.

FO patch cords SCD ...


| Connec |  | Fibre type | Length | / Arti |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Side A | Side B |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| SCD | SC/APC | E09/OS2 | 421711 | 421712 | 421713 | 421714 | 421715 | 421716 | 421717 | 421718 | 421719 | 421720 |
| SCD | SCD | E09/OS2 | 421111 | 421112 | 421113 | 421114 | 421115 | 421116 | 421117 | 421118 | 421119 | 421120 |
| SCD | SCD | G50/OM4 | 431141 | 431142 | 431143 | 431144 | 431145 | 431146 | 431147 | 431148 | 431149 | 431150 |
| SCD | SCD | G50/OM3 | 421131 | 421132 | 421133 | 421134 | 421135 | 421136 | 421137 | 421138 | 421139 | 421140 |
| SCD | ST | E09/OS2 | 421211 | 421212 | 421213 | 421214 | 421215 | 421216 | 421217 | 421218 | 421219 | 421220 |
| SCD | ST | G50/OM3 | 421231 | 421232 | 421233 | 421234 | 421235 | 421236 | 421237 | 421238 | 421239 | 421240 |
| SCD | LCD | E09/OS2 | 421311 | 421312 | 421313 | 421314 | 421315 | 421316 | 421317 | 421318 | 421319 | 421320 |
| SCD | LCD | G50/OM4 | 431341 | 431342 | 431343 | 431344 | 431345 | 431346 | 431347 | 431348 | 431349 | 431350 |
| SCD | LCD | G50/OM3 | 421331 | 421332 | 421333 | 421334 | 421335 | 421336 | 421337 | 421338 | 421339 | 421340 |

FO patch cords LCD ...


FO patch cable LCD - SC/APC


FO patch cable LCD - LCD

| Conne |  | Fibre type | Length | / Artic |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Side A | Side B |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| LCD | SC/APC | E09/OS2 | 423711 | 423712 | 423713 | 423714 | 423715 | 423716 | 423717 | 423718 | 423719 | 423720 |
| LCD | SCD | E09/OS2 | 421311 | 421312 | 421313 | 421314 | 421315 | 421316 | 421317 | 421318 | 421319 | 421320 |
| LCD | SCD | G50/OM4 | 431341 | 431342 | 431343 | 431344 | 431345 | 431346 | 431347 | 431348 | 431349 | 431350 |
| LCD | SCD | G50/OM3 | 421331 | 421332 | 421333 | 421334 | 421335 | 421336 | 421337 | 421338 | 421339 | 421340 |
| LCD | ST | E09/OS2 | 422311 | 422312 | 422313 | 422314 | 422315 | 422316 | 422317 | 422318 | 422319 | 422320 |
| LCD | ST | G50/OM3 | 422331 | 422332 | 422333 | 422334 | 422335 | 422336 | 422337 | 422338 | 422339 | 422340 |
| LCD | LCD | E09/OS2 | 423311 | 423312 | 423313 | 423314 | 423315 | 423316 | 423317 | 423318 | 423319 | 423320 |
| LCD | LCD | G50/OM4 | 433341 | 433342 | 433343 | 433344 | 433345 | 433346 | 433347 | 433348 | 433349 | 433350 |
| LCD | LCD | G50/OM3 | 423331 | 423332 | 423333 | 423334 | 423335 | 423336 | 423337 | 423338 | 423339 | 423340 |

[^6]
# FIBRE OPTIG SOLUTIONS <br> Patch cords and pigtails 

## FO patch cords ST ...



FO patch cable ST - SCD

| Connector type |  | Fibre type | Length in m / Article No. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Side A | Side B |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| ST | SC/APC | E09/OS2 | 422711 | 422712 | 422713 | 422714 | 422715 | 422716 | 422717 | 422718 | 422719 | 422720 |
| ST | SCD | E09/OS2 | 421211 | 421212 | 421213 | 421214 | 421215 | 421216 | 421217 | 421218 | 421219 | 421220 |
| ST | SCD | G50/OM3 | 421231 | 421232 | 421233 | 421234 | 421235 | 421236 | 421237 | 421238 | 421239 | 421240 |
| ST | ST | E09/OS2 | 422211 | 422212 | 422213 | 422214 | 422215 | 422216 | 422217 | 422218 | 422219 | 422220 |
| ST | ST | G50/OM3 | 422231 | 422232 | 422233 | 422234 | 422235 | 422236 | 422237 | 422238 | 422239 | 422240 |
| ST | LCD | E09/OS2 | 422311 | 422312 | 422313 | 422314 | 422315 | 422316 | 422317 | 422318 | 422319 | 422320 |
| ST | LCD | G50/OM3 | 422331 | 422332 | 422333 | 422334 | 422335 | 422336 | 422337 | 422338 | 422339 | 422340 |
| ST | LCD | G50/OM4 | 422301 | 422302 | 422303 | 422304 | 422305 | 422306 | 422307 | 422308 | 422309 | 422310 |

## FO patch cords LSH/APC ...



FO patch cable LSH/APC - LSH/APC

| Connecto |  | Fibre type | Length | / Articl |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Side A | Side B |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| LSH/APC | LSH/APC | E09/OS2 | 428811 | 428812 | 428813 | 428814 | 428815 | 428816 | 428817 | 428818 | 428819 | 428820 |

Pigtails


| Connector type | Fibre type | Fibre pigtail 2 m | Set of 12 fibre pigtails 2 m * |
| :---: | :---: | :---: | :---: |
| SC | E09/OS2 | 421121 | 421122 |
| SC | G50/OM4 | 421144 | 421145 |
| SC | G50/OM3 | 421141 | 421142 |
| ST | E09/OS2 | 422221 | 422222 |
| ST | G50/OM4 | 422244 | 422245 |
| ST | G50/OM3 | 422241 | 422242 |
| LC | E09/OS2 | 423321 | 423322 |
| LC | G50/OM4 | 423348 | 423349 |
| LC | G50/OM3 | 423341 | 423342 |

[^7]
## FIBRE OPTIG SOLUTIONS <br> Connector termination

## Connector termination: optical performance values

Datwyler offers a broad range of terminated connectors
for individual customer needs.
These can be supplied in Simplex as well as in Duplex variants.
Most types are available as APC/HRL variants, too.
We are also able to deliver terminations for higher optical
performance requirements.
zyrconia
MPO: polymer
1000 connections with
stable attenuation values
IEC 61300-3-4
IEC 61300-3-6
during the whole lifetime a
maximum of $+/-0.1 \mathrm{~dB}$
$-10^{\circ} \mathrm{C}$ up to $+60^{\circ} \mathrm{C}$


ST
LC

Ferrule material:
Lifetime:
Test conditions IL:
Test conditions RL:
Reproducibility of the IL value:
Operating temperature:


MTP®/MPO


SC

| Connector | IL [dB] typical | IL [dB] maximum | RL [dB] typical | RL [dB] minimum | Grade (IEC 61755) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MM | 0.15 | 0.3 | 35 | 30 | better than Bm2m |
| SM | 0.12 | 0.25 | 55 | 50 | better than B2 |
| SM/APC | 0.12 | 0.25 | 70 | 65 | better than B1 |
| МTPФ/МРО ММ | 0.15 | 0.3 | 25 | 20 | better than Bm 2 m |
| MTP/MPO SM | 0.1 | 0.25 | 65 | 60 | better than C1 |

All connectors are tested with our Simplex, Duplex and Mini Zipcord cable.......................................................................................................

## Please note

Our single fibre cables and the
connectors of our Duplex patch cables
are marked with cable clips "A" and " $B$ ".

## Wiring of a FO Duplex patch cable A to B

There is a single Duplex clip enclosed to enable a change of polarity.


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## FIBRE-OPTIC TRUNKS

## Pre-assembly of loose-tube cables <br> with all current FO connector types

## Trunk termination

Up to 48 fibres, with all current FO connectors. After the divider (screwable) each single fibre is protected by aramide yarn and has its own sheath.
Single fibre termination graded in length (max. 2 m after divider).


Comes in crush-resistant hose (IP67), optional with braided sleeving only.
Delivery with optical attenuation measurement report (with OTDR: optional at an extra charge).

Trunk termination (article numbers are valid for both sides)
Number of fibres Multimode connector types
Single-mode connector types


## Pre-assembly of breakout cables

with all current FO connector types

## Breakout assembly

Termination of up to 24 single-fibre cables, with all current FO connectors.
Single fibre termination optionally graded in length.
Delivery with optical attenuation measurement report.
Comes in braided sleeving (optional at an extra charge: with cable gland and/or crush-resistant hose protection).


## Breakout assembly

| Breakout assembly | Connector type | Number of connectors | Multimode fibre Article No. | Single-mode fibre Article No. |
| :---: | :---: | :---: | :---: | :---: |
| on one cable end | SC | 4 | 1410596 | 415023 |
| on one cable end | SC | 8 | 1410597 | 415024 |
| on one cable end | SC | 12 | 1410598 | 415025 |
| on one cable end | SC | 24 | 415083 | 415081 |
| on one cable end | LC | 4 | 415085 | 415090 |
| on one cable end | LC | 8 | 415086 | 415091 |
| on one cable end | LC | 12 | 415087 | 415092 |
| on one cable end | LC | 24 | 415088 | 415093 |

Attention: please order the breakout cable seperately - according to your individual needs.
When ordering a trunk cable please ensure that the specified length of the trunk cable is defined by the length of the longest single-fibre cable. This means: the total length of the trunk cable is the length of the cable between the two splits plus the additional length of the longest single-fibre cable on both sides.

## FIBRE OPTIC SOLUTIONS <br> Pre-assembled trunk cables

## FIEXIBLE TRUNKS

## Length determination \& design

of pre-assembled FO trunks


Sturdy HDPE
braided hose

## Description

A Datwyler FO flexible trunk consists of up to 24 single fibre cables (per 2.0 mm ) that are combined in a sturdy HDPE braided hose and have pre-assembled connectors on both ends. FO flexible trunks come in customized lengths and gradations.
This solution is suitable especially for data centre cabling, rack-to-rack connections and multiple patch links.
Delivery with optical attenuation measurement report.


## Length definition

The following criteria are decisive for all pre-assembled Datwyler FO trunks:
$\mathbf{L}=$ Length between dividers / fixing points (= purchase order length)
A = Type of assembly side A:
as required / depending on application, legs graded in length or of equal length
$\mathbf{B}=$ Type of assembly side B:
as required / depending on application,
legs graded in length or of equal length

## FIBRE OPTIG SOLUTIONS Broadband Networks

## IN-HOUSE CABLING

## Building entry point (BEP)

DATpoint TWO - IR, BEP = Building Entry Point
A modular big all-rounder as a pre-assembled kit, ready for use. Ideal for access, in-house and floor distribution Available in different sizes, depending on the number of fibres.
SE trays with optional GPON/splitter holder ( $70 \times 20 \times 6 \mathrm{~mm}$ ).

| Article No. | Product | Base type/ports | Modules | No. of trays | Fibres | Dimensions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 343230 | BEPIR-DXFXT4SX 2 | T 12/-/2 | 4 | 12x IR-SE-ANT (max. 24) | 288 (max. 576) | D: $250 \times 100 \times 615 \mathrm{~mm}$ |
| 343312 | BEPIR-BXFXT1XX | T 12/-/2 | 1 | - | - | B: $250 \times 100 \times 330 \mathrm{~mm}$ |
| 343912 | BEPIR-CXFXT3XX | T $12 /-/ 2$ | 3 | - | - | C: $250 \times 100 \times 470 \mathrm{~mm}$ |
| 344312 | BEPIR-DXFXT5XX | T12/-/2 | 5 | - | - | D: $250 \times 100 \times 615 \mathrm{~mm}$ |
| 343252 | BEPIR-EXFXT7XX | T12/-/2 | 7 | - | - | E: $250 \times 100 \times 760 \mathrm{~mm}$ |
| 343315 | BEPIR-BXFXT1XS | T 12/-/2 | 1 | 12x IR-SC-B ANT | 144 | B: $250 \times 100 \times 330 \mathrm{~mm}$ |
| 343915 | BEPIR-CXFXT3XS | T12/-/2 | 3 | 36xIR-SC-B ANT | 432 | C: $250 \times 100 \times 470 \mathrm{~mm}$ |
| 344315 | BEPIR-DXFXT5XS | T 12/-/2 | 5 | 60x IR-SC-B ANT | 720 | D: $250 \times 100 \times 615 \mathrm{~mm}$ |
| 343255 | BEPIR-EXFXT7XS | T $12 /-/ 2$ | 7 | 84xIR-SC-BANT | 1008 | E: $250 \times 100 \times 760 \mathrm{~mm}$ |


| Part number identification: |  | Enclosure type |  |  |  |  | - | Size | Front/ locking | Base | Tray holder | Tray type |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | B | E | P | I | R |  |  |  |  |  |  |  |
| Step 1: <br> size | Step 2: front/locking system | Step 3: base type |  |  |  |  |  | Step 4: tray holder |  | Step 5: tray type (max. capacity) |  |  |  |
| BX-B size | FX* - 4-flange key | T*-12/-/2 ports |  |  |  |  |  | 1*-IR routing module** |  | XW* - SC/3A + crimp/ANT |  |  |  |
| CX - Csize | TX - 3-klange key | $\mathrm{N}-6 / 3 / 2$ ports |  |  |  |  |  | for 6 SE/12 SC trays |  | XN - SC-B/3A heat shrink |  |  |  |
| DX-D size | BX - Skeleton key | S--/6/2 ports |  |  |  |  |  | depending on size |  | XS - SC-B/crimp/ANT |  |  |  |
| EX-Esize | KX - KABA key |  |  |  |  |  |  | up to 7 modules |  | SX - SE/ crimp/ANT |  |  |  |
| EX - KESOkey |  |  |  |  |  |  |  |  |  | WX - SE/3A heat shrink |  |  |  |
| XM - Metal front |  |  |  |  |  |  |  | X- no tray holder |  | XX - no trays, order separately |  |  |  |
| * standard configuration/** inclusive 1x IR fibre entry and fibre storage element |  |  |  |  |  |  |  |  |  |  |  |  |  |

Fibre optic distribution boxes
DATpoint THREE - IR, BEP = Building Entry Point
Ideal for access, in-house and floor distribution.
SE trays with optional GPON/splitter holder $(70 \times 20 \times 6 \mathrm{~mm})$.

| Article No. | Product | Base type/ports | Modules | Number of trays | Fibres | Dimensions |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 343250 | BEPIR-AXFXF1XW 6NE | F4/-12 | 1 | 6xIRSC (max. 12) | 24 (max. 48) | A: $198 \times 80 \times 215 \mathrm{~mm}$ |
| 344411 | BEPIR-AXFXF1XX | F4/-12 | 1 | - | - | A: $198 \times 80 \times 215 \mathrm{~mm}$ |
| 344414 | BEPIR-AXFXFIXS | F 4/-/2 | 1 | 12xIR-SC-B ANT | 144 | A: $198 \times 80 \times 215 \mathrm{~mm}$ |



## FIBRE OPTIG SOLUTIONS <br> Broadhand Networks

## FO Indoor FTTH / I-M(ZN)H

2.2 mm, LSZH, for indoor use

Coating buffer, flame retardant, in accordance with IEC 60794-2-20

| I-M(ZN)H, 2.2 mm <br> Description | Fibres <br> number | Article No. <br> with E9/125 G.652.D BLO |
| :--- | :--- | :--- |
| FO Indoor FTTH | 4 | 19455000 DZ |

The " $D$ " in these article numbers stands for Euroclass $D_{c a}$. For higher fire performance requirements, Datwyler offers these cables also with Class $C_{c a}$ or even $B 2_{c a}$ performance. For the available Euroclasses please refer to the online data sheets on www.cabling.datwyler.com.

## FTTH data outlet AP $80 \times 80$

## SC/APC or LCD/APC design

surface mounted, also on top of installation cups

| Article No. | Product | Description | Colour (similar to) | PU |
| :---: | :---: | :---: | :---: | :---: |
| 418606 | FTTH data outlet AP | 1x LCD/APC | pure white | 1 pc . |
| 418607 | FTTH data outlet AP | 2x LCD/APC | pure white | 1 pc . |
| 418608 | FITH data outlet AP | 1xLCD/APC / 1x LC/APC | pure white | 1 pc . |
| 418609 | FTTH data outlet AP | 2xLCD/APC/4x LC/APC | pure white | 1 pc . |
| 418610 | FTTH data outlet AP | $1 \times$ SC/APC | pure white | 1 pc . |
| 418611 | FTTH data outlet AP | $2 \times \mathrm{SC/APC}$ | pure white | 1 pc . |
| 418612 | FTTH data outlet AP | $1 \times$ SC/APC/1xSC/APC | pure white | 1 pc |
| 418613 | FFTH data outlet AP | $2 \times \mathrm{SC/APC/} / 2 \times \mathrm{SC/APC}$ | pure white | 1 pc . |

FTTH in-house installation kit
Cable \& data outlet, preassembled

| Article No. | Product | Description | Cable length | PU |
| :---: | :---: | :---: | :---: | :---: |
| 418615 | FTTH installation kit | $2 \times$ LC/APC in LCD/APC adapter | 10 m | 1 set |
| 418616 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 15 m | 1 set |
| 418617 | FTTH installation kit | $2 \times$ LC/APC in LCD/APC adapter | 20 m | 1 set |
| 418618 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 25 m | 1 set |
| 418619 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 30 m | 1 set |
| 418620 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 35 m | 1 set |
| 418621 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 40 m | 1 set |
| 418622 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 45 m | 1 set |
| 418623 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 50 m | 1 set |
| 418624 | FTTH installation kit | 2x LC/APC in LCD/APC adapter | 55 m | 1 set |
| 418625 | FTTH installation kit | $2 \times$ LC/APC in LCD/APC adapter | 60 m | 1 set |
| 418634 | FTTH installation kit | $4 \times$ LC/APC in 2 LCD/APC adapters | 10 m | 1 set |
| 418635 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 15 m | 1 set |
| 418636 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 20 m | 1 set |
| 418637 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 25 m | 1 set |
| 418638 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 30 m | 1 set |
| 418639 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 35 m | 1 set |
| 418640 | FTTH installation kit | $4 \times$ LC/APC in 2 LCD/APC adapters | 40 m | 1 set |
| 418641 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 45 m | 1 set |
| 418642 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 50 m | 1 set |
| 418643 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 55 m | 1 set |
| 418644 | FTTH installation kit | 4x LC/APC in 2 LCD/APC adapters | 60 m | 1 set |

## DROP/FEEDR CABLING

FO Outdoor ZGGT HP / A-DQ(ZN)B2Y HighP

central tube design, metal-free, longitudinally watertight, rodent protection

FO Outdoor wbGGT HP / A-DQ(ZN)B2Y HighP
non metallic, dry interstices,
water resistant, rodent protection

## FO Outdoor ZKT Micro / A-DQ(ZN)2Y Micro

metal-free, non-armoured

FO Outdoor ZKT Micro / A-DQ(ZN)2Y, $\leq 24$ fibres


FO Outdoor ZGGT HP / A-DQ(ZN)B2Y, $1 \times \mathrm{m}, \leq 24$ fibres


FO Outdoor wbGGT HP / A-DQ(ZN)B2Y, n x m, 12-288 fibres


FO Outdoor ZGGT HP, up to 24 fibres

| A-DQ(ZN)B2Y Description | 1 xm | Fibres number | Article No. with E9/125 G.652.D |
| :---: | :---: | :---: | :---: |
| FO Outdoor ZGGT HP | $1 \times 4$ | 4 | 19016600FZ |
| FO Outdoor ZGGT HP | $1 \times 6$ | 6 | 19016700FZ |
| FO Outdoor ZGGT HP | $1 \times 8$ | 8 | 19016800FZ |
| FOOutdoor ZGGT HP | $1 \times 12$ | 12 | 19016900FZ |
| FOOutdoor ZGGTMP | $1 \times 24$ | 24 | $19014900 F 2$ |

FO Outdoor wbGGT HP, 12-288 fibres

| A-DQ(ZN)B2Y Description | nxm | Fibres number | Article No. <br> with E9/125 G.652.D |
| :---: | :---: | :---: | :---: |
| FO Outdoor wbGGT HP | $1 \times 12$ | 12 | 19005900FZ |
| FO Outdoor wbGGT HP | $2 \times 12$ | 24 | 18674800FZ |
| FO Outdoor wbGGT HP | $4 \times 12$ | 48 | 18738500 FZ |
| FO Outdoor wbGGT HP | $5 \times 12$ | 60 | 19017100FZ |
| FO Outdoor wbGGT HP | $6 \times 12$ | 72 | 19017200FZ |
| FO Outdoor wbGGT HP | $8 \times 12$ | 96 | 18676000FZ |
| FO Outdoor wbGGT HP | $12 \times 12$ | 144 | 18739400FZ |
| FO Outdoor wbGGT HP | $6 \times 24$ | 144 | 19076400FZ |
| FO Outdoor wbGGT HP | $9 \times 24$ | 216 | 19069600FZ |
| FO Outdoor wbGGT HP | $12 \times 24$ | 288 | 19032500FZ |

FO Outdoor ZKT Micro, Micro, up to 24 fibres

| A-DQ(ZN)B2Y <br> Description | $\mathbf{n \times m}$ | Fibres <br> number | Sheath $\varnothing$ <br> mm | Article No. <br> with E9/125 G.652.D | Article No. <br> with E9/125 G.652.D BLO |
| :--- | :--- | :--- | :--- | :--- | :--- |
| FO Outdoor ZKT Micro | $1 \times 12$ | 12 | 4 |  | 19022700 FZ |

# FIBRE OPTIG SOLUTIONS <br> Broadhand Networks 

## FO Outdoor wbKT Micro / A-DQ(ZN)2Y Micro

very thin, metal-free, non-armoured,
dry interstices, longitudinally watertight

## FO Outdoor ZT S-Micro / A-D2Y s-Micro

very thin, metal-free, with one central loose tube, easily cut back, installation friendly cable construction, optimised for injection into microducts

FO Outdoor wbKT S-Micro / A-DQ(ZN)2Y s-Micro
highly compact, metal-free, dry interstices,
stranded loose tubes, easily cut-back, installation-friendly cable construction, optimised for injection into microducts

FO Outdoor wbKT Micro / A-DQ(ZN)2Y, $\leq 144$ fibres


FO Outdoor ZT S-Micro / A-D2Y, $\leq 24$ fibres


FO Outdoor wbKT S-Micro / A-DQ(ZN)2Y, 12-576 fibres

FO Outdoor wbKT C-Micro / A-DQ(ZN)2Y C-Micro

Extremely compact, metal-free, dry interstices,
stranded loose tubes, easily cut-back, installation-friendly
cable construction, optimised for injection into microducts

FO Outdoor wbKT Micro, up to 144 fibres

| A-DQ(ZN)2Y <br> Description | nx m | Fibres number | Sheath $\varnothing$ <br> mm | Article No. <br> with E9/125 G.652.D BLO | Article No. with E9/125 G.652.D |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FO Outdoor wbKT Micro | $1 \times 12$ | 12 | 6.6 | on request | 19170600FZ |
| FOOutdoor wbKT Micro | $2 \times 12$ | 24 | 6.6 | 19213100FZ | 19008000 FZ |
| FO Outdoor wbKT Micro | $4 \times 12$ | 48 | 6.6 | 19185900FZ | $19023000 F Z$ |
| FO Outdoor wbKT Micro | $5 \times 12$ | 60 | 6.6 | 19186000FZ | 19023100FZ |
| FOOutdoor wbKT Micro | $6 \times 12$ | 72 | 6.5 | 19185800FZ | 19023200FZ |
| FO Outdoor wbKT Micro | $8 \times 12$ | 96 | 7.6 | 19215800FZ | 19181300FZ |
| FO Outdoor wbKT Micro | $6 \times 24$ | 144 | 8.2 | on request | 19181400FZ |

FO Outdoor ZT S-Micro, up to 24 fibres

| A-D2Y <br> Description | 1 xm | Fibres number | Sheath $\varnothing$ mm | Article No. with E9/125 G.652.D |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| FO Outdoor ZT S-Micro | $1 \times 4$ | 4 | 2.4 | 19343400FZ |  |
| FO Outdoor ZT S-Micro | $1 \times 6$ | 4 | 2.4 | 19604800FZ |  |
| FO Outdoor ZT S-Micro | $1 \times 12$ | 12 | 2.4 | 19346000FZ |  |
| FO Outdoor ZT S-Micro | $1 \times 24$ | 24 | 2.4 | 19343300FZ |  |
| FO Outdoor wbKT S-Micro, up to 288 fibres |  |  |  |  |  |
| A-DQ(ZN)2Y Description | nx m | Fibres number | Sheath $\varnothing$ mm | Article No. <br> with E9/125 G.652.D BLO | Article No <br> with E9/125 G.652.D |
| FO Outdoor wbKT S-Micro | $2 \times 12$ | 24 | 4.2 | 19269300FZ | on request |
| FO Outdoor wbKT S-Micro | $4 \times 12$ | 48 | 4.2 | 19215000FZ | on request |
| FO Outdoor wbKT S-Micro | $8 \times 12$ | 96 | 6.6 | 19214900FZ | 19215900FZ |
| FO Outdoor wbKT S-Micro | $6 \times 24$ | 144 | 6.5 | on request | 19450000FZ |
| FO Outdoor wbKT S-Micro | $9 \times 24$ | 216 | 8.4 | on request | 19262500FZ |
| FO Outdoor wbKT S-Micro | $12 \times 24$ | 288 | 10.4 | on request | 19600000FZ |

FO Outdoor wbKT C-Micro, 72 fibres

| A-DQ(ZN)2Y <br> Description | $\mathbf{n \times m}$ | Fibres <br> number | Sheath $\boldsymbol{m}$ <br> mm | Article No. <br> with E9/125 G.652.D BLO200 |
| :--- | :--- | :--- | :--- | :--- |
| FO Outdoor wbKT C-Micro | $3 \times 24$ | 72 | 4.1 | 19618000 FZ |

## FIBRE OPIIC SOLUTIONS Broadband Networks

## FIBRE OPTIC DOME CLOSURES

Our five lines of dome closures are available with two different fibre management systems: Integrated Routing (IR) and Tubed (TB) for use in underground, direct burial and aerial application. SE trays with optional GPON/splitter holder ( $70 \times 20 \times 6 \mathrm{~mm}$ ).

## Type FST (TB)



For other variants and accessories please visit our website.


Type FRBU (TB)



## FIBRE OPTIG SOLUTIONS <br> Broadhand Networks

Type FML-IR

| Port | Number of ports | Cable diameter |  |
| :---: | :---: | :---: | :---: |
|  |  | Cablelok ${ }^{\text {m }}$ | heat shrink |
| L | 1 | $2 \times 5.5-20.0$ mm | $2 \times 10.0$ - 24.0 mm |
| T | 2 | $5.5-29.0$ mm | $8.0-35.0$ mm |
| S | 6 | $5.0-20.0$ mm | 12.0 - 26.0 mm |
| B | 4 | $4.8-16.5 \mathrm{~mm}$ | $6.0-19.0$ mm |



10 ports

| Article No. | Product | Dimensions | Cable entry seal | Number and type of tray | Splice type | Fibres |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 345781 | FMLIR-CXXCSX | C: $220 \times 275 \times 748 \mathrm{~mm}$ | Cablelok, heat shrink | 30 IR Single Element (SE) | ANT | 720 |
| 345801 | FMLIR-BCXCSX | BC: $220 \times 275 \times 668 \mathrm{~mm}$ | Cablelolok, heat shrink | 24 IR Single Element (SE) | ANT | 576 |
| 345821 | FMLIR-BXXCSX | B: $220 \times 275 \times 598 \mathrm{~mm}$ | Cablelok, heat shrink | 18 IR Single Element (SE) | ANT | 432 |

For other variants and accessories please visit our website.

| Part number identification |  | Enclosure type |  |  |  |  | Length | Basket | Tray type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | M | L | 1 | R |  | C |  |
| Step 1: length | Step 2: <br> basket or double stack |  |  |  | Step 3 base |  |  | Step 4: tray type (splice type) |  |
| BX-B length | B - Loop storage basket |  |  |  | C- Standard |  |  | WX - SE splice trays (3A heat shrink splice protection) |  |
| $B C-B C$ length | X - no loop storage bask |  |  |  |  |  |  | SX - SE splice trays (ANT//crimp splice protection) |  |
| CX- Clength |  |  |  |  |  |  |  |  | ce trays (3A |
|  |  |  |  |  |  |  |  |  | lice trays (3) |
|  |  |  |  |  |  |  |  | XS - SC-B splice trays (ANT/crimp splice protection) |  |
|  |  |  |  |  |  |  |  | XX | e trays, orde |

Type FDN-IR

| Port | Number of ports | Cable diameter |  |
| :---: | :---: | :---: | :---: |
|  |  | Cablelok ${ }^{\text {M }}$ | heatshrink |
| L | 1 | $2 \times 5.5-20.0 \mathrm{~mm}$ | $2 \times 10.0-24.0 \mathrm{~mm}$ |
| T | 2 | $5.5-29.0$ mm | $8.0-35.0$ mm |
| S | 4 | $5.0-20.0$ mm | $12.0-26.0 \mathrm{~mm}$ |
| B | 2 | $4.8-16.5 \mathrm{~mm}$ | $6.0-19.0$ mm |
| R | 52 | $1.7-9.5 \mathrm{~mm}$ | - |




59 ports


16 ports

| Article No. | Product | Dimensions | Cable entry seal | Number and type of tray | Splice type | Fibres |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 346158 | FDNIR-CXXASX | C: $312 \times 222 \times 789 \mathrm{~mm}$ | Cablelok, heat shrink | 36 IR Single Element (SE) | ANT | 864 |
| 346172 | FDNIR-BXXASX | B: $312 \times 222 \times 663 \mathrm{~mm}$ | Cablelok, heat shrink | 24 IR Single Element (SE) | ANT | 576 |
| 345651 | FDNIR-ABXCSX | AB: $312 \times 222 \times 561 \mathrm{~mm}$ | Cablelok, heat shrink | 12 IR Single Element (SE) | ANT | 288 |
| 345681 | FDNIR-AXXCSX | B: $312 \times 222 \times 455 \mathrm{~mm}$ | Cablelok, heat shrink | 6 IR Single Element (SE) | ANT | 144 |

For other variants and accessories please visit our website.
Cablelok ${ }^{\text {™ }}$ is a registered trademark of HellermannTyton.

| Part number identification |  | Enclosure type |  |  |  |  | Length | Basket | Tray type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | F | D | N | I | R |  |  |  |
| Step 1: length | Step 2: <br> basket or double stack |  |  |  | Step 3: base |  |  | Step 4: tray type (splice type) |  |
| AX-A length | B - Loop storage basket |  |  |  | C-59 ports |  |  | WX - SE splice trays (3A heat shrink splice protection) |  |
| $A B-A B$ length | X- noloop storage basket |  |  |  | A-16 ports |  |  | SX - SE splice trays (ANT/crimp splice protection) |  |
| $B X-B$ length |  |  |  |  |  |  |  | XN- SC-B splice trays (3A hatat shrink splice protection) |  |
| CX - Clength |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  | XS - SC-B splice trays (ANT/crimp splice protection) |  |
|  |  |  |  |  |  |  |  |  | e trays, ord |

## FIBRE OPTIO SOLUTIONS Broadband Networks

## Type UFC-IR

| Port | Number of ports | Cable diameter |  |
| :---: | :---: | :---: | :---: |
|  |  | heat shrink |  |
| L | 1 | $2 \times 5.5-20.0 \mathrm{~mm}$ | $2 \times 10.0-24.0 \mathrm{~mm}$ |
| LM | 1 | $2 \times 4.0-15.0 \mathrm{~mm}$ | $2 \times 8.0-22.0 \mathrm{~mm}$ |
| T | 2 | $5.5-29.0 \mathrm{~mm}$ | $8.0-35.0 \mathrm{~mm}$ |
| S | 10 | $5.0-20.0 \mathrm{~mm}$ | $12.0-26.0 \mathrm{~mm}$ |
| B | 16 | $4.8-16.5 \mathrm{~mm}$ | $6.0-19.0 \mathrm{~mm}$ |



| Article No. | Product | Dimensions | Cable entry seal | Number and type of tray |
| :--- | :--- | :--- | :--- | :--- |$\quad$ Splice type $\quad$ Fibres

For other variants and accessories please visit our website.


## Cablelok ${ }^{\text {TM }}$

Mechanical seal Cablelok for cables of different diameters. Tool-less installation within 2 minutes (heat shrink: 20 minutes). Can be used repeatedly.


| Article No. | Product | Entry type | PU |
| :---: | :---: | :---: | :---: |
| $345 x x x$ | Cablelok seal for type R entry / xxx165 Ø $1.7-2.0 \mathrm{~mm} / \mathrm{xxx1} 166 \varnothing 2 \times 1.7-2.0 \mathrm{~mm} / \mathrm{xxx} 849$ Ø $2.0-3.0 \mathrm{~mm} /$ <br>  $x x x 171$ ø $6.0-8.5 \mathrm{~mm} / \mathrm{xxx172} \varnothing 8.0-9.5 \mathrm{~mm} / \mathrm{xxx173} \mathrm{cap}$ | R | 1 pc . |
| $345 x x x$ | Cablelok seal for type B entry / xxx160 ø $4.8-9.0 \mathrm{~mm} / \mathrm{xxx161} \varnothing 8.0-14.0 \mathrm{~mm} /$ xxx162 Ø $13.0-16.5 \mathrm{~mm} / \mathrm{xxx} 163 \mathrm{cap}$ | B | 1 pc. |
| $345 x x x$ | Cablelok seal for type S entry / xxx174 Ø $5.0-8.5 \mathrm{~mm} / \mathrm{xxx175} \varnothing 8.0-12.0 \mathrm{~mm} / \mathrm{xxx} 176 \varnothing 2 \times 10.0-11.5 \mathrm{~mm} /$ xxx177 Ø 12.0-16.0 mm / xxx178 Ø 16.0-20.0 mm / xxx947 Ø 5x6.8-7.2 mm / xxx179 cap | S | 1 pc. |
| 345 xxx | Cablelok seal for type T entry / xxx1 $80 \varnothing 15.5-20.0 \mathrm{~mm} / \mathrm{xxx} 181 \varnothing 20.5-23.5 \mathrm{~mm} / \mathrm{xxx} 182 \varnothing 23.5-25.5 \mathrm{~mm} /$ xxx183 Ø 24.5 - $29.0 \mathrm{~mm} / \mathrm{xxx} 184$ cap | T | 1 pc. |
| $345 x x x$ | Cablelok seal for type L loop entry / xxx081 $\varnothing 2 \times 5.5-9.5 \mathrm{~mm} / \mathrm{xxx0} 02$ Ø $2 \times 9.0-12.5 \mathrm{~mm} /$ <br>  | L | 1 pc |
| $45 x x x$ | Cablelok seal for type LM loop entry / xxx087 $\varnothing 2 \times 4.0-6.5 \mathrm{~mm} / \times x \times 088 \varnothing 2 \times 6.0-9.5 \mathrm{~mm} /$ xxx089 Ø $2 x$ 9.0-12.5 mm / xxx090 Ø $2 \times 12.5-15.0 \mathrm{~mm} / \mathrm{xxx091} \mathrm{cap}$ | LM | 1 pc |

[^8]
# FIBRE OPTIG SOLUTIONS <br> Broadhand Networks 

## Tube systems

## Micro ducts

Micro ducts are used for the mechanical protection of fibre optic micro cables
For direct burial or for the laying in pipe systems.
The micro ducts are made from high density polyethylene (HDPE) or low smoke halogen free (LSHF).


| Article No.* | Product | Installation type | Material | PU (drum and m) |
| :---: | :---: | :---: | :---: | :---: |
| 3432xx | Micro duct DB 7/4 mm | direct burial | HDPE | 6000 m |
| 3433xx | Micro duct DB 8/5 mm | direct burial | HDPE | 4800 m |
| 3434xx | Micro duct DB $10 / 6 \mathrm{~mm}$ | direct burial | HDPE | 3000 m |
| 3436xx | Micro duct DB 12/8 mm | direct burial | HDPE | 2000 m |
| 3437xx | Micro duct DB 14/10 mm | direct burial | HDPE | 1350 m |
| 3438xx | Micro duct DB 16/12 mm | direct burial | HDPE | 1000 m |
| 3439xx | Micro duct DB 18/14 mm | direct burial | HDPE | 2200 m |
| 3435xx | Micro duct Dl $5 / 3.5 \mathrm{~mm}$ | laying in pipes | HDPE | 5000 m |
| 3446xx | Micro duct DI $7 / 5.5 \mathrm{~mm}$ | laying in pipes | HDPE | 6000 m |
| 3440xx | Micro duct DI $8 / 6 \mathrm{~mm}$ | laying in pipes | HDPE | 4800 m |
| $3441 \times x$ | Micro duct Dl 10/8 mm | laying in pipes | HDPE | 3000 m |
| 3442xx | Micro duct DI $12 / 10 \mathrm{~mm}$ | laying in pipes | HDPE | 2000 m |
| 3443xx | Micro duct DI 14/12 mm | laying in pipes | HDPE | 1350 m |
| 3444xx | Micro duct DI 16/14 mm | laying in pipes | HDPE | 1000 m |
| 3445xx | Micro duct DI $18 / 16 \mathrm{~mm}$ | laying in pipes | HDPE | 1250 m |
| $3447 x$ | Micro duct DI $5 / 3.5 \mathrm{~mm}$ | laying in pipes | LSHF | 5000 m |
| 3448xx | Micro duct DB 10/5.5 mm | direct burial | LSHF | 3000 m |
| 3449xx | Micro duct DB 14/10 mm | direct burial | LSHF | 1350 m |

Order quantity complies with drum capacity (no cuts!)

* Please replace the "xx" by the two digits for the required colour (see below) when ordering
Micro ducts
are available
in different colours:
full colour or
with stripes

| Colour |  | Addition <br> to article no. | Colour |  | Addition <br> to article no. | Colour |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Addition |  |  |  |  |  |  |  |  |
| to article no. |  |  |  |  |  |  |  |  |

## Micro duct bundles

Micro ducts are used for the mechanical protection of fibre optic micro cables. For direct burial or for the laying in pipe systems. The micro ducts are made from high density polyethylene (HDPE) or low smoke halogen free (LSHF). Bundles are available in different variants. We'll be pleased to advise you.


| Article No. | Product | Installation type | Material | PU (drum and m) |
| :---: | :---: | :---: | :---: | :---: |
| 343208 | Multi micro duct HPPE DB $12 \times 7 / 4 \mathrm{~mm}$, orange | direct burial | HDPE | 3500 m |
| 343209 | Multi micro duct LSHF DI $12 \times 5 / 3.5 \mathrm{~mm}$, white | laying in pipes | LSHF | 800 m |

Other versions on request.

## Micro duct accessories

Straight connectors, reduction connectors, end caps, waterproof end caps, gas block connectors, divisible gas blocks, safety clips, rubber protection caps, plastic caps, cutting tools (duct shear, minicutter, stripper), deburring tools, etc. are available on request. We'll be pleased to advise you.

# FIBRE OPTIG SOLUTIONS Broadband Networks 

## DATWYIER AERIAL SOLUTION

## Overhead solution for fibre broadband expansion

With this Aerial Solution, the micro cables are installed in non-metallic UV- and frost-resistant micro-ducts on the existing overhead infrastructure - i.e. on telecommunication masts or power poles. Apart from cost savings and a fast rollout, the advantage of this system is that it uses the same network architecture and the same network elements (BEP, OTO, cables), and can be installed by the same firms which install the conventional overhead power or telecommunications network.

The solution comprises 31 mm-thick multi-ducts suspended from steel tape (total height: 44 mm ), 10 mm -thick drop ducts for connecting buildings, a branch-off duct closure, a roof entry, and various clamps, fixing components and the requisite tools.

Datwyler recommends the use of non-metallic, non-armoured and longitudinally watertight "FO Outdoor Micro" and"S-Micro" cables with external diameters of between 2.4 and 8.4 mm . These are available with 12 to 216 fibres as required.

## Application

- For a simple and cost-efficient Fibre-to-the-Home (FttH) rollout in rural areas
- For fibre broadband expansion without the need for time-consuming and expensive groundwork


## System components

- Micro-duct bundles for pole mounting - micro ducts: $12 \times 5 / 3.5 \mathrm{~mm}$ (outer), $1 \times 14 / 10 \mathrm{~mm}$ (inner)
- Micro-duct $5 / 3.5 \mathrm{~mm}$, single, for the connection to the building
- Branch-off duct closure, watertight, for the protection of up to 3 branches
- Anchoring clamps (2 versions) to fix bundles and single ducts to end or corner point poles - Requisite pole fixing brackets
- Suspension clamps (2 versions) to fix bundles and single ducts to middle poles
- Stainless steel tape (and requisite buckle)
- House roof entry kit (heat shrink sealing)
- Stripping, separation, cutting and tensioning tools



## Recommended cables:

| Article No. | for micro-ducts $5 / 3.5 \mathrm{~mm}$ | Fibres | Sheath $\varnothing$ |
| :---: | :---: | :---: | :---: |
| 19343400FZ | FO Outdoor ZT S-Micro $1 \times 4$ E9/125 G.652.D BLO | 4 | 2.4 mm |
| $19346000 F Z$ | FO Outdoor ZT S-Micro 1x 12 E9/125 G.652.D BLO | 12 | 2.4 mm |
| $19343300 F Z$ | FO Outdoor ZT S-Micro $1 \times 24$ E9/125 G.652.D BLO | 24 | 2.4 mm |
| Article No. | for micro-ducts $14 / 10 \mathrm{~mm}$ | Fibres | Sheath $\varnothing$ |
| 19023000FZ | FO Outdoor wbKT Micro 4x 12 E9/125 G.652.D | 48 | 6.6 mm |
| 19215900FZ | FO Outdoor wbKT S-Micro 8x 12 E9/125 G.652.D | 96 | 6.6 mm |
| $19450000 F Z$ | FO Outdoor wbKT S-Micro $6 \times 24$ E9/125 G.652.D | 144 | 6.5 mm |
| 19262500FZ | FO Outdoor wbKT S-Micro 9x 24 E9/125 G.652.D | 216 | 8.4 mm |



## FIBRE OPTIG SOLUTIONS

Broadhand Networks

## THE CENTRAL OFFICE -THE HEART OF FIBRE OPTIC INFRASTRUCTURE



## CENTRAL OFFICE (POP)

Optical distribution frames (ODF)
19"/47U passive
In FTTx backbone and distribution networks
for passive components.

## 19"/47U active

In FTTx backbone and distribution networks
for active components.
Mobile or stationary deployment.

Project-specific configurations are available on request.


ODF passive


ODF active

## Distribution boxes and optical drawers

19" splice boxes or breakout boxes are available in pivoting or telescopic versions, in customized configurations and with all current connector types such as LSH, SC and LCD (in PC or APC variants).

The splice boxes are ready for splicing, with prepared pigtails per 2 m , colour code: IEC 60304.

## Pre-assembled fibre optic cables

Pre-assembles FO cables enable customers to work with ready-to-install fibre optic multiple cables (trunks) in the requested lengths and types. The trunks are made to customer specifications under laboratory conditions.


Patch and adapter cables, fibre pigtails
Please find an overview of available patch cables and pigtails as well as all data sheets on our website: www.cabling.datwyler.com / Products. Available connector types: SC, LC, LC/APC, LSH, FC/PC, SC/APC, LSH/APC...



# Datwilers fuviverpioor  acowririso 



The HD-DCS offers users the same quality features as the FO-DCS plus more than twice the port density and even greater flexibility. The housings have integrated cable management, which makes installation and maintenance easier. Port labelling is also simpler and more flexible.

## Performance features:

- Extremely compact solution with maximum port density (MTP and LCD)
- Flexible assembly with plug-in modules of different size/port density $(6,12,24)$
- Integrated cable management and labelling system
- Compact patch cables $(2 \mathrm{~mm})$ with push-pull tabs
- Patch and breakout cables with CPR classification (up to B2 ${ }_{\text {ca }}$ )


FO-DCS is a future-proof, preassembled plug-and-go fibre optic solution characterised by high-quality cables and components and a high-precision connector assembly. Its outstanding optical and geometric values make it suitable for all current and future high-speed applications in data centres. Modular components can be combined as required, thus providing users with the ultimate in design flexibility.

## Performance features:

- Simple installation with intuitive labelling and easy access from the front
- High quality $3 \mathrm{U} / 7 \mathrm{HP}$ plug-in modules
- Connectivity solutions with MTP, LDC and LCQ
- Breakout and splice solutions available
- Simple integration of copper connections


## FO-DCS VS. HD-DCS



| CRITERIA | HD-DC Solution | FO-DC Solution |
| :---: | :---: | :---: |
|  |  |  |
| Solution | Premier | Standard |
| Max. number of ports on 1U | 96 | 36 |
| Max. number of ports on 4U | 384 | 144 |
| Connection types | LCD, MTP | LCD, LSH-C, (SCD), MTP |
| Fibre types | OM4, G.652.D (BLO) | OM3, OM4, G.652.D (BLO) |
| Max. number of fibres / 1U- LCD | 192 | 72 |
| Max. number of fibres / 1U- MTP ${ }_{12}$ | 1152 | 432 |
| Max. number of fibres / 4U- LCD | 768 | 288 |
| Max. number of fibres / 4U - MTP ${ }_{12}$ | 4608 | 1728 |
| LCD adapters with integral dust cover | - | - |
| Splice modules | - | - |
| Breakout modules | - | $\bigcirc$ |
| Copper module with 6x RJ45 | - | $\bigcirc$ |
| FO modules with 6 ports | $\bigcirc$ | $\bigcirc$ |
| FO modules with 12 ports | - | $\bigcirc$ |
| FO modules with 24 ports | - | - |
| Patch cables, round, 2 mm | - | - |
| Patch cables, round, 3 mm | - | - |
| Patch cable management 0U | - | (only with 4 U subrack) |
|  | details from page 71 | details from page 80 |

# HICH.DE:MSTIT data Geintresolution 



Datuyler's modular High Density Gabling Solution is characterised by its port density and flexibility

The implementation of IOT and Big Data is expected to lead to a general, steady increase in the traffic of digital data. Large amounts of data are generated every second and have to be processed and transferred to their destination. As a result, our data centers and data networks are growing rapidly.

In order to cope with this growth, companies need connection technology for their active components with very high port densities and flexibility for future requirements.

A Datwyler HD-DCS modular solution offers this network flexibility, a great scalability in the smallest space, saves rack space and enables intelligent connection configurations. HD-DCS is the ideal solution for fiber optic data networks, especially in data centres. HD-DCS modules are particularly suitable for all high-density and high-performance applications with duplex signals. With these modules, a packing density of up to 1,152 fibres per 1 U can be achieved (MTP ${ }_{12}$ ).

With a Datwyler HD-DCS solution, your data network infrastructure is ready for future growth.

## FIGH-DENSITY DATA GENTRE SOLUTION Patch panels and cassettes

## PATCH PANEL

HD-DCS modular panel, 19"/1U
to take 4 or 12 HD-DCS plug-in modules


Modular, scalable high-density platform for the data centre environment.
Sturdy stainless steel housing with depth-adjustable cable support plate and front 19"/1U mounting brackets.
Pre-assembled with four slots to take HD-DCS plug-in modules from the front or rear.
Each slot accepts three modules with 6 ports or one module with 12 or 24 ports.
Allows for variable, scalable port densities from 48 up to 96 ports (LCD and MPO/MTP®).
Up to 192 fibres (with LCD) or 1152 fibres (with MTP ${ }_{12}$ ) per height unit.

| Article No. | Description | Colour (front plate) | Colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 473600 | HD-DCS panel, 19"1U, 4x 12/24-port | black | silver | 1 pc . |
| 473601 | HD-DCS panel, 19"10, $12 \times 6$-port | black | silver | 1 pc |
| 473602 | HD-DCS panel, 19"1U, 6/12/24-port | black | silver | 1 pc. |

## CASSETTES

## HD-DCS MTP module, $1 \times$ MTP on $6 x$ LCD/PC or LCD/APC OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled MTP trunk cables.
Suitable for all high-density and high-performance applications with duplex signals, particularly in the data centre environment.
Assembled to a very high quality which guarantees optimum values for optical performance (IL/RL).
Polycarbonate (PC) housing with press-fit cover (sealed).
Insertion into the panel from the front.
The MTP coupler at the rear is routed to the front couplers (6LCD) by way of an internal fanout.
Front couplers with integrated, automatic transparent dust shutters.
A packing density of up to 144 fibres on 1 U can be achieved with this module type.

| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473520 | HD-DCS MTP module, 1x MTP on 6x LCD/PC, OM4 | black | 1 pc . |
| 473522 | HD-DCS MTP module, $1 \times$ MTP on 6x LCD/PC, OS2 | black | 1 pc |
| 473523 | HD-DCS MTP module, 1x MTP on 6x LCD/APC, OS2 | black | 1 pc |

## HD-DCS MTP module, 1x MTP Duplex on 12x LCD/PC or LCD/APC OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled MTP ${ }^{\circledast}$ trunk cables.
Suitable for all high-density and high-performance applications with duplex signals, particularly in the data centre environment.
Assembled to a very high quality which guarantees optimum values for optical performance (IL/RL). Polycarbonate (PC) housing with press-fit cover (sealed).
Insertion into panel from the front or rear.
The MTP Duplex coupler at the rear is routed to the front couplers ( $2 \times 6 \mathrm{LCD}$ ) by way of internal fanouts.
Front couplers with integrated, automatic transparent dust shutters.
A packing density of up to 96 fibres on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473500 | HD-DCS MTP module, $1 \times$ MTP Duplex on $12 \times$ LCD/PC, OM4 | black | 1 pc. |
| 473504 | HD-DCS MTP module, $1 \times$ MTP Duplex on 12x LCD/PC, OS2 | black | 1 pc |
| 473506 | HD-DCS MTP module, $1 \times$ MTP Duplex on $12 \times$ LCD/APC, OS2 | black | 1 pc . |

## HD-DCS MTP module, 2x MTP Duplex on $24 x$ LCD/PC or LCD/APC OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled MTP trunk cables.
Suitable for all high-density and high-performance applications with duplex signals, particularly in the data centre environment.
Assembled to a very high quality which guarantees optimum values for optical performance (IL/RL).
Polycarbonate (PC) housing with press-fit cover (sealed).
Insertion into panel from the front or rear.
Two MTP Duplex couplers at the rear are routed to the front couplers ( $4 \times 6 \mathrm{LCD}$ ) by way of internal fanouts.
Front couplers with integrated, automatic transparent dust shutters.
A packing density of up to 192 fibres on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473501 | HD-DCS MTP module, $2 \times$ MTP Duplex on $24 \times$ LCD/PC, OM4 | black | 1 pc . |
| 473505 | HD-DCS MTP module, $2 \times$ MTP Duplex on $24 \times$ LCD/PC, OS2 | black | 1 pc . |
| 473507 | HD-DCS MTP module, $2 \times$ MTP Duplex on $24 \times$ LCD/APC, OS2 | black | 1 pc . |

## HD-DCS BO module, $6 x$ LCD/PC or LCD/APC <br> OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled LC/LCD trunk cables.
Suitable for all high-density and high-performance applications with duplex signals, particularly in the data centre environment.
Polycarbonate ( PC ) housing with press-fit cover (sealed).
Insertion into panel from the front.
Rear side slot fitted with a cable grommet.
Front couplers with integrated, automatic transparent dust shutters.
A packing density of 144 fibres on 1 U can be achieved with this module type.


Article No.

| Colour | PU |
| :--- | :--- |
| black | 1 pc. |
| black | -1 pl |
| black |  |

## HD-DCS BO module, $12 x$ LCD/PC or LCD/APC <br> OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled LC/LCD trunk cables.
Suitable for all high-density and high-performance applications with duplex signals, particularly in the data centre environment.
Polycarbonate (PC) housing with press-fit cover (sealed).
Insertion into panel from the front or rear.
Rear side slot fitted with a cable grommet.
Front couplers with integrated, automatic transparent dust shutters.
A packing density of up to 96 fibres on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473540 | HD-DCS BO module, 12x LCD/PC, OM4 | black | 1 pc . |
| 473544 | HD-DCS BO module, $12 \times$ LCD/PC, OS2 | black | 1 pc |
| 473546 | HD-DCS BO module, $12 \times$ LCD/APC, OS2 | black | 1 pc . |

## FIIGH-DENSITY DATA GENTRE SOLUTION

## Cassettes

## HD-DCS BO module, $24 x$ LCD/PC or LCD/APC <br> OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled LC/LCD trunk cables.
Suitable for all high-density and high-performance applications with duplex signals, particularly in the data centre environment.
Polycarbonate (PC) housing with press-fit cover (sealed).
Insertion into panel from the front or rear.
Rear side slot fitted with a cable grommet.
Front couplers with integrated, automatic transparent dust shutters.
A packing density of up to 192 fibres on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473541 | HD-DCS BO module, $24 \times$ LCD/PC, OM4 | black | 1 pc. |
| 473545 | HD-DCS BO module, $24 \times$ LCD/PC, OS2 | black | 1 pc |
| 473547 | HD-DCS BO module, $24 \times$ LCD/APC, OS2 | black | 1 pc . |

## HD-DCS BO module, 6x MPO <br> OM4 or OS2, for HD-DCS modular panel

Accepts pre-assembled MTP ${ }^{\circledR}$ trunk cables.
Suitable for all high-density and high-performance applications with parallel optic signals, particularly in the data centre environment.
Polycarbonate ( PC ) housing with press-fit cover (sealed).
Insertion into panel from the front.
Rear side entry fitted with a rubber grommet.
Front couplers with translucent dust plugs.
A packing density of 864 fibres $\left(M_{12}\right)$ on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473590 | HD-DCS BO module, 6x MPO, OM4 | black | 1 pc . |
| 473592 | HD-DCS BO module, 6x MPO, OS2 | black | 1 pc . |

## HD-DCS BO module, 12x MPO

for HD-DCS modular panels, for OM4, OS2

Accepts pre-assembled MTP® trunk cables.
Suitable for all high-density and high-performance applications with parallel optic signals, particularly in the data centre environment.
Polycarbonate (PC) housing with press-fit cover (sealed).
Insertion into panel from the front and back.
Two rear side entries fitted with rubber grommets.
Front couplers with translucent dust plugs.
A packing density of 576 fibres $\left(\mathrm{MTP}_{12}\right)$ on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473570 | HD-DCS BO module, $12 \times$ MPO, OM4 | black | 1 pc . |
| 473574 | HD-DCS BO module, $12 \times \mathrm{MPO}$, OS2 | black | 1 pc . |

## HD-DCS BO module, 24x MPO <br> for HD-DCS modular panels, for OM4, OS2

Accepts pre-assembled MTP® trunk cables.
Suitable for all high-density and high-performance applications with parallel optic signals, particularly in the data centre environment.
Polycarbonate ( PC ) housing with press-fit cover (sealed).
Insertion into panel from the front and back.
Two rear side entries fitted with rubber grommets.
Front couplers with translucent dust plugs.
A packing density of 1,152 fibres $\left(\mathrm{MTP}_{12}\right)$ on 1 U can be achieved with this module type.


| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473571 | HD-DCS BO module, 24x MPO, OM4 | black | 1 pc. |
| 473575 | HD-DCS BO module, $24 \times$ MPO, OS2 | black | 1 pc. |

## ACCESSORIES

## HD-DCS patch cable management set OU <br> 4 patch cable management elements, detachable label plate



The patch cable management $0 U$ comes in a set of 4 pieces.
Patch cables can be routed easely within the same rack unit of the modular panal.
No additional rack unit needed for patch cable routing.
An appropriate label plate including label cover is part of the set.
The label plate can be fold down during the patching process
for additional space.
HD-DCS patch cable management set OU includes
the following preassembled parts:

- 4 cable guides
- 4 label plates
- 4 label plate covers
- 4 paper labels (preprinted)

| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473620 | HD-DCS patch cable management set OU | black | 1 pc |

## FIIGH-DENSITY DATA GENTRE SOLUTION

## Accessories

## HD-DCS Blind plates

for HD-DCS modular Panel
Unused slots of the HD-DCS panel can be covered

by blind plates depending on panel version.
Blind plates for 6 -port and 12/24-port module available.

| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473023 | HD-DCS Blind plate 1x6-port | black | 1 pc |
| 473029 | HD-DCS Blind plate 12/24-port | black | 1 pc |

## HD-DCS Cable fixation base

for HD-DCS modular Panel
For mounting installation cables
on the cable tray of the HD-DCS panel.
Velcro tape provides the necessary hold.
The Velcro base is attached without tools by a $45^{\circ}$ turn.

| Article No. | Description |
| :--- | :--- |
| 473043 | HD-DCS Cable fixation base $8-35 \mathrm{~mm}$ |
| 47042 |  |

HD-DCS Snap-on fixiation clip
for HD-DCS modular Panel

Fixation clip for the storage of the installation cables.
Excessive cable lengths can thus be optimally guided and deposited.
Easy mounting by sliding it into the HD-DCS cable tray.

| Article No. | Description | Colour | PU |
| :---: | :---: | :---: | :---: |
| 473040 | HD-DCS Snap-on fixiation clip 8 mm | black | 1 pc . |
| 473041 | HD-DCS Snap-on fixiation clip 14 mm | black | 1 pc . |

## Cleaning tools

## HIGH-DENSITY DATA GENTRE SOLUTION Patch and fanout cables

## PATCH AND FANOUT CABLES

## HD-DCS Indoor cables, MTP

12-144 fibres, OM4 or OS2

Compact, metal-free cable construction with FR/LSZH cable sheath and 12 to 144 fibres.
OM4 or OS2 versions with Euroclass $D_{c a}$ ( $C_{c a}$ or $B 2_{\text {ca }}$ available on request).
Sticker labelling at both cable ends.
Project-specific length of individual cables („legs"): standard 0.55 m , max. 4.0 m .
Leg separation effected with a divider housing.
Individual cables are assembled using MTP® connectors with high-performance 12-fibre
Elite ${ }^{\oplus}$ ferrules ( $\mathrm{MTP}_{8} / \mathrm{MTP}_{24}$ available on request).
Push-pull tabs included.
Standard connectivity methods: type A or C (other types available on request).
Cables fitted with protective sleeves at both ends.


| Article No. type A | Article No. type C | Description | Cable sheath colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 474000 | 474010 | HD-DCS indoor cable $1 \times$ MTP - $1 \times$ MTP, 12 F OM4 | heather violet | by the metre |
| 474001 | 474011 | HD-DCS indoor cable $2 \times$ MTP - $2 \times$ MTP, 24 F OM4 | heather violet | by the metre |
| 474002 | 474012 | HD-DCS indoor cable 4x MTP - 4x MTP, 48F OM4 | heather violet | by the metre |
| 474004 | 474014 | HD-DCS indoor cable $8 \times$ MTP - $8 \times$ MTP, 96F OM4 | heather violet | by the metre |
| 474005 | 474015 | HD-DCS indoor cable 12xMTP - 12x MTP, 144F OM4 | heather violet | by the metre |
| 474040 | 474050 | HD-DCS indoor cable $1 \times$ MTP - $1 \times$ MTP, 12 O OS2 | yellow | by the metre |
| 474041 | 474051 | HD-DCS indoor cable $2 \times$ MTP - $2 \times$ MTP, $24 F$ OS2 | yellow | by the metre |
| 474042 | 474052 | HD-DCS indoor cable $4 \times$ MTP - $4 \times$ MTP, 48F OS2 | yellow | by the metre |
| 474044 | 474054 | HD-DCS indoor cable 8x MTP - 8x MTP, 96F OS2 | yellow | by the metre |
| 474045 | 474055 | HD-DCS indoor cable 12x MTP - 12x MTP, 144F OS2 | yellow | by the metre |

MTP and MTPElite are registered brands of US Conec.

## HD-DCS Breakout cables, MTP

12-144 fibres, OM4 or OS2

Compact, metal-free cable construction with FR/LSZH cable sheath and 12 to 144 fibres. OM4 or OS2 versions with Euroclass Dca (Cca or B2ca available on request).
Sticker labelling at both cable ends.
Project-specific length of individual cables („legs"): standard 0.55 m , max. 4.0 m .
Individual cables are assembled using MTP® connectors with high-performance 12-fibre Elite ${ }^{\oplus}$ ferrules ( $\mathrm{MTP}_{8} / \mathrm{MTP}_{24}$ available on request).
Push-pull tabs included.
Standard connectivity methods: type A or C (other types available on request).
Cables fitted with protective sleeves at both ends.


| Article No. type A | Article No. type C | Description | Cable sheath colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 475000 | 475010 | HD-DCS Breakout cable 1x MTP - 1x MTP | heather violet | by the metre |
| 475001 | 475011 | HD-DCS Breakout cable $2 \times$ MTP - $2 \times$ MTP | heather violet | by the metre |
| 475002 | 475012 | HD-DCS Breakout cable 4x MTP - 4x MTP | heather violet | by the metre |
| 475004 | 475014 | HD-DCS Breakout cable 8x MTP - 8x MTP | heather violet | by the metre |
| 475005 | 475015 | HD-DCS Breakout cable 12x MTP - $12 \times$ MTP | heather violet | by the metre |
|  |  |  |  |  |
| 475040 | 475050 | HD-DCS Breakout cable 1x MTP - 1x MTP | yellow | by the metre |
| 475041 | 475051 | HD-DCS Breakout cable 2x MTP - 2x MTP | yellow | by the metre |
| 475042 | 475052 | HD-DCS Breakout cable 4x MTP - 4x MTP | yellow | by the metre |
| 475044 | 475054 | HD-DCS Breakout cable 8x MTP -8x MTP | yellow | by the metre |
| 475045 | 475055 | HD-DCS Breakout cable $12 \times \mathrm{MTP}-12 \times$ MTP | yellow | by the metre |

## FIIGH-DENSITY DATA GENTRE SOLUTION <br> Patchrand fanout cables

## HD-DCS patch cords, LCD Uniboot <br> OM4 or OS2

Round Uniboot patch cables with Intelli-Cross mechanism for fast polarity change.
Compact cable design with FR/LSZH cable sheath ( 2.1 mm ) and 2 fibres.
Available in lengths up to 10 m (other lengths on request). Connectivity A to A or A to B .
Sticker labelling at both cable ends.
Suitable for all high-performance applications with duplex signals in the data center environment.
Preassembled with LCD Uniboot Intelli-Cross connectors (high-performance) at both ends.
Assembled to a very high quality which guarantees optimum values for optical performance (IL/RL).


| Description | Colour | Type | Length | m / Arti |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HD-DCS patch cord LCD/PC - LCD/PC | sheath |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| G50/125 OM4 | heather violet | $A$ to B | 473400 | 473401 | 473402 | 473403 | 473404 | 473405 | 473406 | 473407 | 473408 | 473409 |
| G50/125 OM4 | heather violet | A to A | 473420 | 473421 | 473422 | 473423 | 473424 | 473425 | 473426 | 473427 | 473428 | 473429 |


| E9/125 G.652.D (BLO) | yellow | A to B | 473300 | 473301 | 473302 | 473303 | 473304 | 473305 | 473306 | 473307 | 473308 | 473309 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E9/125 G.652.D (BLO) | yeilow | A to A | 473320 | 473321 | 473322 | 473323 | 473324 | 473325 | 473326 | 473327 | 473328 | 473329 |

HD-DCS patch cord LCD/APC - LCD/APC

| E9/125 G.652.D (BLO) | yellow | $A$ to $B$ | 473340 | 473341 | 473342 | 473343 | 473344 | 473345 | 473346 | 473347 | 473348473349 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E9/125G652.D (BLO) | yellow | A to A | 473360 | 473361 | 473362 | 473363 | 473364 | 473365 | 473366 | 473367 | 473368473369 |
| HD-DCS patch cord LCD/PC - LCD/APC |  |  |  |  |  |  |  |  |  |  |  |
| E9/125 G.652.D (BLO) | yellow | A to B | 473380 | 473381 | 473382 | 473383 | 473384 | - | - | - | - - |
| E9/125 G.652.D (BLO) | yellow | A to A | 473390 | 473391 | 473392 | 473393 | 473394 | - | - | - | - - |

## HD-DCS patch cords, MTP ${ }^{\circledR}$

OM4 or OS2
Thin, very flexible fibre-optic patch cable (round, $\varnothing 2.0 \mathrm{~mm}$ ) with 12 fibres. Low fire load due to halogen-free flame-retardant LSZH sheath.
Available in lengths up to 5 m (other lengths on request).
Standard polarisation modes: A, B or C.
Sticker labelling at both cable ends.
Suitable for all high-performance applications with parallel optic signals in the data centre environment.
Pre-assembled with high-performance MTP connectors (female) at both ends. Assembled to a very high quality which guarantees optimum values for optical performance (IL/RL).
Comes with push-pull tabs.

| Description | Colour | Connectivity | Length in m / Article No. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| HD-DCS patch cord MTP - MTP | sheath |  | 1 | 2 | 3 | 4 | 5 |
| G50/125 OM4 | heather violet | A | 473200 | 473201 | 473202 | 473203 | 473204 |
| G50/125 OM4 | heather violet | B | 473210 | 473211 | 473212 | 473213 | 473214 |
| G50/125 OM4 | heather violet | C | 473220 | 473221 | 473222 | 473223 | 473224 |
| E9/125 G.652.D (BLO) | yellow | A | 473260 | 473261 | 473262 | 473263 | 473264 |
| E9/125 G.652.D (BLO) | yellow | B | 473270 | 473271 | 473272 | 473273 | 473274 |
| E9/125 G652.D (BLO) | yellow | C | 473280 | 473281 | 473282 | 473283 | 473284 |

## HIGH-DENSITY DATA GENTRE SOLUTION Patch and fanout cables

## HD-DCS fanout cables, MTP ${ }^{\circledR}$-LCD

## 8 fibres, OM4 or OS2

for splitting 100 G into $4 \times 25 \mathrm{G}$ or 40 G into 4 x 10G
Thin, very flexible fibre-optic fanout cables (round, $\varnothing 2.0 \mathrm{~mm}$ ) with 8 fibres. Low fire load due to halogen-free flame-retardant LSZH sheath.
Available in 2.5 m standard length (other lengths on request).
Standard connectivity methods: A or C.
Sticker labelling at both cable ends.
Thin divider housing for single-cable seperation ("legs")
The legs with LCD Uniboot (LCDU) plugs are numbered (1-4),
can be ordered graded in length or of equal length.
Project-specific assemblies available on request.
Suitable for all high-performance applications in the data centre environment. Assembled to a very high quality which guarantees optimum values for optical performance (IL/RL).

Used to split all well-known multimode and single-mode QSFP applications such as SR4, PSM4, PLR4 and FCp into four duplex channels;
the connectivity splits one 4-channel parallel optic link into four duplex links (e.g. 100 G to $4 \times 25 \mathrm{G}$ or 40 G to 4 x 10 G ).


| Article No. type A | Article No. type C | Description | Cable sheath colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 4473750 | 473755 | HD-DCS fanout cable $1 \times$ MTP - $4 \times$ LCDU | heather violet | 1 pc . |
| 473751 | 473756 | HD-DCS fanout cable $1 \times$ MTP - $4 \times$ LCDU | heather violet | 1 pc |
| 473770 | 473775 | HD-DCS fanout cable $1 \times$ MTP - 4x LCDU | yellow | 1 pc |
| 473771 | 473776 | HD-DCS fanout cable $1 \times$ MTP - $4 \times$ LCDU | yellow | 1 pc . |

MTP® is a registered brand of US Conec.

## HD-DCS fanout cables, MTP ${ }^{\circledR}$-LCD

## 12 fibres, OM4 or OS2

for connecting active components
Thin, very flexible fibre-optic fanout cable (round, $\varnothing 2.0 \mathrm{~mm}$ ) with 12 fibres. Low fire load due to halogen-free flame-retardant LSZH sheath.
Available in 2.5 m standard length (other lengths on request).
Standard connectivity methods: A or C.
Sticker labelling at both cable ends.
Thin divider housing for single-cable seperation ("legs").
The legs with LCD Uniboot (LCDU) plugs are numbered (1-6),
can be ordered graded in length or of equal length.
Project-specific assemblies available on request.
Suitable for all high-performance applications in the data centre environment.
Assembled to a very high quality which guarantees optimum values
for optical performance (IL/RL).
The connection between six duplex ports and one parallel optic port enables quick and space-saving cabling of active components such as routers, switches, servers and storage systems.


| Article No. type A | Article No. type C | Description | Cable sheath colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 473700 | 473705 | HD-DCS fanout cable $1 \times$ MTP - $6 \times$ LCDU | heather violet | 1 pc. |
| 473701 | 473706 | HD-DCS fanout cable 1xMTP - 6x LCDU | heather violet | 1 pc . |
| 473720 | 473725 | HD-DCS fanout cable 1xMTP - 6x LCDU | yellow | 1 pc . |
| 473721 | 473726 | HD-DCS fanout cable 1xMTP - 6x LCDU | yellow | 1 pc |

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## DATWYIER DATA GENTRE SOLUTION



High-performance system solutions in copper, but chiefly in fibre optic technology constitute the backbone of high-speed data transfer in data centres. The ever higher transmission rates not only call for high-quality optical fibres, they also make increasing demands on the connecting components. Both system components are crucial to the efficient performance of transmission channels.

Flexibility is a core requirement for a cabling solution in today's data centre environment.
New systems need to be planned, assembled and installed within a very short time. New technologies (like BiDi), new generations of devices (like 25G servers) and new network designs (fabrics) mean that the demands on link performance are continually rising.

Datwyler's Data Centre Solution surpasses all the requirements for modern, powerful cabling solutions, its high quality and excellent optical and geometric connector assembly values being of particular note here.

## DATWYIER DATA GENTRE SOLUTION

## FUTURE-PROOF CABLING SOLUTION

## for data centres

## Benefits of the Datwyler Data Centre Solution:

- Top quality guarantees top performance
- High packing densities hand in hand with good clear layout
- Fast and easy assembly (plug-and-go)
- Modifications/installations possible during ongoing operation, no need for outside companies (reduced OPEX)
- Preassembly: no in-situ stripping, splicing or connector termination work necessary
- Slimline cable design, so no disruption to cooling air flow and no redundant lengths of cable in rack
- Scalable thanks to modular design
- Investment protection and future viability as migratable to future applications
- High spare capacity due to extremely low optical losses
- Power budget protection thanks to bend-optimised fibres (multimode)


## The most important system components:

- Preassembled fibre optic mini trunks
- Preassembled fibre optic plug-in modules (MTP, Breakout or Splice version)
- Fibre optic fanout cables ( 100 G on $4 \times 25 \mathrm{G}$, for example)
- Fibre optic patch cables (LCD and MTP)
- Modularly equipped 19-inch 1 U panels and $3 \mathrm{U} / 4 \mathrm{U}$ subracks
- Patch management trays and cable management accessories

These system components provide high-performance modular solutions for server room and data centre cabling tailored to customer requirements, the outstanding features of which are clear layout, flexibility, high packing density and good handling during operation.

## Optical values of the Datwyler Data Centre Solution:

| Criterion | Assembly Class | Insertion Loss IL [dB] |  | Return Loss RL [dB] |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Connector type | IEC 61755-3-2 | mean | maximum | mean | minimum |
| MTP Elite ${ }^{\oplus} 0^{\circ} \mathrm{PC}$ (multimode) | Grade B | 0.15 | 0.3 | $\geq 40$ | $\geq 35$ |
| MTP Elite $8^{\circ}$ APC (single-mode) | Grade B | 0.1 | 0.3 | $\geq 70$ | $\geq 65$ |
| LCD Uniboot $0^{\circ} \mathrm{PC}$ (multimode) | Grade B | 0.1 | 0.25 | $\geq 40$ | $\geq 35$ |
| LCD Uniboot $8^{\circ} \mathrm{APC}$ (single-mode) | Grade B | 0.1 | 0.25 | $\geq 75$ | $\geq 65$ |

## FIBRE OPTIC CHANNEL CONFIGURATION OPTIONS

The high-performance carefully coordinated cables and components of the Datwyler Data Centre Solution can be combined as required and make it possible to implement an open infrastructure design decoupled from the user's equipment pool. The system also allows simple migration to future applications. The graphics below show some typical configurations. Please see our website for more.

Module-to-module configuration


Two FO-DCS plug-in modules are interconnected by a thin mini breakout cable MTP-MTP.
For all known Duplex applications up to 25G Ethernet or up to 32G Fiber Channel.

| Part Level | Description |
| :---: | :--- |
| 1 High-performance | Mini breakout cable MTP-MTP, type A or type C |
| 2 | High-performance |
| 3 | High-performance |

These system components are available in multimode (OM3 or OM4) and single-mode (G.652.D) versions.

## DATWYIER DATA OENTRE SOLUTION

## Module-to-module configuration (without MTP)



These system components are available in multimode (OM3 or OM4) and single-mode (G.652.D) versions.

Module-to-fanout configuration


One FO-DCS plug-in module is connected to two FO-DCS fanout cables (MTP® on LCD Uniboot) by a thin FO-DCS mini breakout cable MTP-MTP for a direct link between the active ports (e.g. ports of a SAN switch). For all wellknown Duplex applications such as 10G and 25G Ethernet or 16G and 32G Fiber Channel.

| Part | Level | Description | Remarks |
| :---: | :---: | :---: | :---: |
| 1 | High-performance | Mini Breakout cable MTP-MTP type A or type C | 12, 24, 48, 72,96 or 144 fibres |
| 2 | High-performance | Plug-in module, $3 \mathrm{U} / 7 \mathrm{HP}, 24 \mathrm{~F}, 2 \times \mathrm{MTP}$ on $6 \times$ LCD | 24 fibres |
| 3 | High-performance | Patch cable LCD-LCD (Uniboot) | Polarity: A to A or A to B |
| 4 |  | Front plate, 3U/7HP, $2 \times$ MTP adapter, type A | also available with $4 \times$ or $8 \times$ MTP adapter |
| 5 | High-performance | Fanout cable, $1 \times$ MTP on $6 \times$ LCD Uniboot | Polarity: type A or type C |

These system components are available in multimode (OM3 or OM4) and single-mode (G.652.D) versions.

## Converter plug-in module configuration


Two FO-DCS converter plug-in modules are interconnected by a FO-DCS mini breakout cable MTP-MTP. For threee 40G, NG100G, PSM4, PLR4 or 64GFC links.

| Part | Level | Description | Remarks |
| :---: | :---: | :---: | :---: |
| 1 | High-performance | Mini Breakout cable MTP-MTP, type A or type C | 12, 24, 48, 72,96 or 144 fibres |
| 2 | High-performance | Converter plug-in module, 3U/7HP, 24F, $2 \times \mathrm{MTP}$ on $3 \times \mathrm{MTP}$ | 24 fibres ( $2 \times 12$ on $3 \times 8$ fibres) |
| 3 | High-performance | Patch cable MTP-MTP | Polarity: type A, B or C, 12 fibres |

These system components are available in multimode (OM4) and single-mode (G.652.D) versions.

## Migration to 40G/100G (parallel optics)



The FO-DCS plug-in modules in subracks are replaced by FO-DCS front plates with MTP adapters.
The high-performance FO-DCS mini-breakout cables MTP-MTP can continue to be used.

|  | Level | D |
| :---: | :---: | :---: |
| 1 | High-performance | Mi |
| 2 |  | Fro |
| 3 | High-performance | Pa |
| 4 | High-performance | Y |

## Description

Mini Breakout cable MTP-MTP type A or type C Front plate 3U/7HP 4x MTP adapter, type A
C

## Remarks

$12,24,48,72,96$ or 144 fibres
also available with $2 x$ or $8 \times$ MTP adapter
Polarity: type A, B or C, 12 fibres
Polarity: type A, B or C, 24 fibres

## DATWYIER DATA GENTRE SOLUTION Subracks and patch panels

## SUBRACKS \& PATCH PANELS

## FO-DCS modular subracks, 19"

Pre-assembled with horizontal guide rails - can be modularly fitted. Take a maximum of twelve 3U/7HP FO-DCS plug-in modules or front plates. Capacity: up to 144 Duplex ports ( 288 fibres) or up to 144 MTP ${ }^{\oplus}$ ports ( 1728 fibres). Any mixture of modules / front plates can be installed in the same subrack.
Extractable excess cable length tray (1U) - can be inserted on the fourth rack unit in two ways, so that optionally the slots or holes can be used as cable entry openings.


| Article No. | Description | Material / Colour | PU |
| :---: | :---: | :---: | :---: |
| 470540 | FO-DCS modular subrack, 19"/3U, 84HP (without excess cable length tray) | Aluminium, anodised | 1 pc. |
| 470542 | FO-DCS modular subrack, 19"/4U, 84HP | Aluminium, anodised | 1 pc . |
| 470642 | FO-DCS modular subrack, 19"/4U, 84HP | Aluminium, black | 1 pc . |
| 470648 | Strain relief for FO-DCS modular subrack 4U (depth: 48 mm ) |  | 1 pc |
| 470549 | Strain relief for FO-DCS modular subrack 4U (depth: 80 mm ) |  | 1 pc . |
| 470649 | Strain relief for FO-DCS modular subrack 4U, with black brush strip (depth: 48 mm ) |  | 1 pc . |
| 470555 | FO-DCS blank partial front plate 3U/7HP | Aluminium, anodised | 1 pc |
| 571595 | FO-DCS blank partial front plate 3U/7HP | PC, black | 1 pc . |

## FO-DCS modular panels, 19"

Take a maximum of three 3U/7HP FO-DCS plug-in modules or front plates. Capacity: up to 36 Duplex ports ( 72 fibres) or up to 36 MTP ports ( 432 fibres). Any mixture of modules / front plates can be installed in the same panel.


| Article No. | Description | Material / Colour | PU |
| :---: | :---: | :---: | :---: |
| 470543 | FO-DCS modular panel, 19"11U | Aluminium, anodised | 1 pc . |
| 470643 | FO-DCS modular panel, 19"1U | Aluminium, black | 1 pc . |

## FO-DCS compact breakout panels, 19"/1U

Pre-assembled with 12 or 24 LC Quad adapters.
Capacity: up to 24 or 48 Duplex ports ( 48 or 96 fibres).
Sturdy aluminium housing.


| Article No. | Description | Material / Colour | PU |
| :---: | :---: | :---: | :---: |
| 470618 | FO-DCS compact breakout panel, 19"/1U, $12 \times \mathrm{LCQ}, \mathrm{OM} 3$ turquoise | Aluminium, anodised | 1 pc . |
| 470619 | FO-DCS compact breakout panel, 19"/1U, 12x LCQ, OM4 heather violet | Aluminium, anodised | 1 pc |
| 470620 | FO-DCS compact breakout panel, 19"/1U, 12x LCQ, OS2 blue | Aluminium, anodised | 1 pc |
| 470621 | FO-DCS compact breakout panel, 19"/1U, 12x LCQ, OS2 green | Aluminium, anodised | 1 pc |
| 470622 | FO-DCS compact breakout panel, 19/1U, 24x LCQ, OM3 turquoise | Aluminium, anodised | 1 pc |
| 470623 | FO-DCS compact breakout panel, 19"/1U, 24x LCQ, OM4 heather violet | Aluminium, anodised | 1 pc |
| 470624 | FO-DCS compact breakout panel, 19"11U, 24x LCQ, OS2 blue | Aluminium, anodised | 1 pc |
| 470625 | FO-DCS compact breakout panel, 19"/1U, 24x LCQ, OS2 green | Aluminium, anodised | 1 pc |

Variants in Aluminium black available on request.

## DATWYIER DATA OENTRE SOLUTION <br> Sulbracks and patch panels

## FO-DCS compact panels, 19"/1U, with MTP ${ }^{\oplus}$-LCD pre-assembly

Pre-assembled with 4 or 8 MTP® couplers (Type A: key-up/key-down) at rear side, MTP-on-LC fanouts, and 12 or 24 LC Quad adapters at front side.
Capacity: 24 or 48 Duplex ports (48 or 96 fibres).
Top-quality assembly ensures optimum values for optical performance. Sturdy aluminium housing.


| Article No. | Description | Material / Colour | PU |
| :---: | :---: | :---: | :---: |
| 470610 | FO-DCS compact panel, 19"/1U, 4x MTP on $24 \times$ LCD, OS2 blue | Aluminium, anodised | 1 pc . |
| 470611 | FO-DCS compact panel, $19 / 110$, 4x MTP on $24 \times$ LCD-APC, OS2 green | Aluminium, anodised | 1 pc . |
| 470612 | FO-DCS compact panel, 19"/1U, 4x MTP on 24x LCD, OM3 turquoise | Aluminium, anodised | 1 pc . |
| 470613 | FO-DCS compact panel, 19"/1U, 4x MTP on $24 \times$ LCD, OM4 heather violet | Aluminium, anodised | 1 pc . |
| 470614 | FO-DCS compact panel, 19"/1U, 8xMTP on 48x LCD, OS2 blue | Aluminium, anodised | 1 pc . |
| 470615 | FO-DCS compact panel, 19"/1U, 8x MTP on 48x LCD-APC, OS2 green | Aluminium, anodised | 1 pc . |
| 470616 | FO-DCS compact panel, 19"11 , 8x MTP on 48x LCD, OM3 turquoise | Aluminium, anodised | 1 pc . |
| 470617 | FO-DCS compact panel, 19"11, 8x MTP on 48x LCD, OM4 heather violet | Aluminium, anodised | 1 pc |
| Variants in A | equest. | MTP® is a registered brand name of US Conec. |  |

## FO-DCS management panel, 19"/1U

The FO-DCS management panel is used for the proper routing of fibre optic patch cables in all $19^{\prime \prime} \mathrm{IT}$ racks and cabinets.
19"/1U FO-DCS management panel with 6 cable routing elements and hinged front plate.


| Article No. | Description | Material / Colour |
| :--- | :--- | :--- |
| 470698 | FO-DCS management panel, 19"/1U, left/right-side routing | Alu, black |

## DATWYIER DATA GENTRE SOLUTION Cassettes and front panels

## CASSETTES AND FRONT PANELS

FO-DCS MTP ${ }^{\circledR}$ plug-in modules, 24 F and $12 \mathrm{~F}, 3 \mathrm{U} / 7 \mathrm{HP}$

Polycarbonate (PC) housing with press-fit side panels (sealed).
3U/7HP front panel, black PC or anodised aluminium, provides $6 \times$ LCQ or $6 \times$ LCD or $6 \times$ LSH-C.
MTP couplers (rear side) are routed to the front couplers by way of an internal fanout.
Integrated fibre management.
PC front panels provide labelling strips on both sides.

| Article No. <br> with black PC front panel | Article No. <br> with anodised Alu front panel | Description | PU |
| :---: | :---: | :---: | :---: |
| 571500 | 571600 | FO-DCS 3U/7HP plug-in module, $2 \times$ MTP on $6 \times$ LCQ, OM3 | 1 pc . |
| 571501 | 571601 | FO-DCS 3U/7HP plug-in module, $2 \times$ MTP on $6 \times$ LCQ, OM4 | 1 pc |
| 571502 | 571602 | FO-DCS 3U/7HP plug-in module, $2 \times$ MTP on 6x LCQ/PC, OS2 (G.652.D) | 1 pc |
| 571503 | 571603 | FO-DCS 3U/7HP plug-in module 2xMTP on 6x LCQ/APC, OS2 (G.652.D) | 1 pc . |
| 571506 | 571606 | FO-DCS 3U/7HP plug-in module, $1 \times$ MTP on $6 \times$ LCD, OM3 | 1 pc . |
| 571507 | 571607 | FO-DCS 3U/7HP plug-in module, $1 \times \mathrm{MTP}$ on 6x LCD, OM4 | 1 pc. |
| 571508 | 571608 | FO-DCS 3U/7HP plug-in module, $1 \times$ MTP on 6x LCD/PC, OS2 (G.652.D) | 1 pc. |
| 571509 | 571609 | FO-DCS 3U/7HP plug-in module, $1 \times$ MTP on 6x LCD/APC, OS2 (G.652.D) | 1 pc . |
| 571505 | 571605 | FO-DCS 3U/7HP plug-in module, $1 \times$ MTP on 6x LSH-C/APC, OS2 (G.652.D) | 1 pc. |
| 571599 |  | Labelling sheet A4, perforated (blank) | 10 pcs |

## FO-DCS breakout plug-in modules, 3U/7HP

Open polycarbonate ( PC ) housing.
$3 \mathrm{U} / 7 \mathrm{HP}$ front panel, black PC, with $6 \times \mathrm{LCQ}, 6 \times \mathrm{LCD}$ or $6 \times \mathrm{LSH}-\mathrm{C}$, optional: with $6 x$ MTP ${ }^{\circledR}$ or $6 x$ MTPD, type A.
Integrated radius limiters and retaining clips for
pre-assembled fibre optic cables.
Two integrated labelling strips.


| Article No. with $6 \times$ LCD | Article No. with $6 \times$ LCQ | Description | PU |
| :---: | :---: | :---: | :---: |
| 571576 | 571570 | FO-DCS BO plug-in module, 3U/7HP, 6x LCD or 6x LCQ, turquoise | 1 pc . |
| 571577 | 571571 | FO-DCS BO plug-in module, $3 \mathrm{U} / 7 \mathrm{HP}, 6 \times$ LCD or $6 \times$ LCQ, heather violet | 1 pc. |
| 571578 | 571572 | FO-DCS BO plug-in module, 3U/7HP, 6x LCD or 6x LCQ, blue | 1 pc. |
| 571579 | 571573 | FO-DCS BO plug-in module, $3 \mathrm{~J} / 7 \mathrm{HP}, 6 \times$ LCD or $6 \times$ LCQ, green | 1 pc. |
| with 6x LSH-C |  |  |  |
| 571575 |  | FO-DCS BO plug-in module, 3U/7HP, 6x LSH-C/APC, green | 1 pc . |
| 571599 |  | Labelling sheet A4, perforated (blank) | 10 pcs. |
| with 6xMTP | with 6x MTPD |  |  |
| 571590 | 571580 | FO-DCS BO plug-in module, 3U/7HP, 6x MTP or 6x MTPD, turquoise | 1 pc . |
| 571591 | 571581 | FO-DCS BO plug-in module, 3 U/7HP, 6x MTP or 6x MTPD, heather violet | 1 pc |
| 571592 | 571582 | FO-DCS BO plug-in module, 3U/7HP, 6x MTP or 6x MTPD, black | 1 pc. |
| 571593 | 571583 | FO-DCS BO plug-in module, 3U/7HP, 6x MTP or 6x MTPD, green | 1 pc. |
| 571599 |  | Labelling sheet A4, perforated (blank) | 10 pcs. |

## DATWYIER DATA OENTRE SOLUTION Cassettes and firont panels

## FO-DCS converter plug-in modules, $3 \mathrm{U} / 7 \mathrm{HP}$

Polycarbonate ( PC ) housing with press-fit side panels (sealed). 3U/7HP front plate, black PC, provides $3 x$ MTP $_{8}$ Type A / 6x LCQ (speed converter). $2 \times$ MTP $_{12}$ adapters (rear side).

Article No.
Description
PU
with black PC front panel

| 571520 | FO-DCS converter plug-in module, 3U/7HP, 2xMTP on $3 \times$ MTP, OM3 | 1 pc . |
| :---: | :---: | :---: |
| 571521 | FO-DCS converter plug-in module, 3U/7HP, 2xMTP on 3x MTP, OM4 | 1 pc . |
| 571522 | FO-DCS converter plug-in module, $3 \cup / 7 \mathrm{HP}, 2 \times M T P$ on $3 \times$ MTP, OS2 | 1 pc |
| 571540 | FO-DCS speed converter plug-in module, 3U/7HP, $2 \times$ MTP on $6 \times$ LCQ, OM3 | 1 pc . |
| 571541 | FO-DCS speed converter plug-in module, 3U/7HP, $2 \times$ MTP on $6 \times$ LCQ, OM4 | 1 pc |
| 571542 | FO-DCS speed converter plug-in module, 3U/7HP, $2 \times$ MTP on $6 \times$ LCQ/PC, OS2 | 1 pc . |
| 571543 | FO-DCS speed converter plug-in module, 3 U/7HP, $2 \times$ MTP on $6 \times$ LCQ/APC, 0 O2 | 1 pc . |

## FO-DCS splice plug-in modules, 3U/7HP

Polycarbonate (PC) housing, press-fit side panels (sealed). Black PC or aluminium 3U/7HP front panel with $6 x$ LCQ or $6 x$ LCD. Ready-to-splice pigtails ( 1.3 m ) are neatly inserted. Cassette has splice reserve on both sides (cable/pigtail),
splice comb and strain relief.


Black PC front panels provide labelling strips.
There is a separate distribution box available for multi-fibre loose tube cables or for storing the excess tube lengths (see our website for more information).

| Article No. <br> with black PC front panel | Article No. with anodised Alu front panel | Description | PU |
| :---: | :---: | :---: | :---: |
| 571530 | 571630 | FO-DCS 3U/7HP splice plug-in module, 6x LCQ, OM3 | 1 pc . |
| 571531 | 571631 | FO-DCS 3U/7HP splice plug-in module, 6x LCQ, OM4 | 1 pc |
| 571532 | 571632 | FO-DCS 3U/7HP splice plug-in module, 6x LCQ/PC, OS2 (G. 65. | 1 pc . |
| 571533 | 571633 | FO-DCS 3U/7HP splice plug-in module, 6x LCQ/APC, OS2 (G.652.D) | 1 pc . |
| 571536 | 571636 | FO-DCS 3U/7HP splice plug-in module, 6x LCD, OM3 | 1 pc . |
| 571537 | 571637 | FO-DCS 3U/7HP splice plug-in module, 6x LCD, OM4 | 1 pc . |
| 571538 | 571638 | FO-DCS 3U/7HP splice plug-in module, 6x LCD/PC, OS2 (G.652.D) | 1 pc |
| 571539 | 571639 | FO-DCS 3U/7HP splice plug-in module, 6x LCD/APC, OS2 (G.652.D) | 1 pc . |
| 571599 |  | Labelling sheet A4, perforated (blank) | 10 pcs . |

## FO-DCS MTP ${ }^{\circledR}$ front panels, 3U/7HP

Polycarbonate $(\mathrm{PC})$ or aluminium front panel with 2,4 or 8 MTP adapters (with dust caps). Black PC front panels provide labelling strips on both sides.

| Article No. black PC | Article No. anodised alu | Description |  | PU |
| :---: | :---: | :---: | :---: | :---: |
| 571550 |  | FO-DCS front panel, $2 \times$ MTP, 3U/7HP | $2 \times$ MTP type A turquoise | 1 pc . |
| 571551 |  | FO-DCS front panel, $2 \times$ MTP, $3 \cup / 7 \mathrm{HP}$ | $2 \times$ MTP type A magenta | 1 pc . |
| 571552 |  | FO-DCS front panel, $2 \times$ MTP, $3 \cup / 7 \mathrm{HP}$ | $2 \times$ MTP type A black | 1 pc |
| 571556 |  | FO-DCS front panel, $4 \times$ MTP, 3 U/7HP | 4x MTP type A turquoise | 1 pc . |
| 571557 |  | FO-DCS front panel, $4 \times$ MTP, 3 U/7HP | 4x MTP type A magenta | 1 pc |
| 571558 | 470550 | FO-DCS front panel, $4 \times$ MTP, $3 \cup / 7 \mathrm{HP}$ | 4x MTP type A black | 1 pc |
| 571560 |  | FO-DCS front panel, $8 \times$ MTP, $3 \cup / 7 \mathrm{HP}$ | 8x MTP type A turquoise | 1 pc |
| 571561 |  | FO-DCS front panel, $8 \times$ MTP, 3U/7HP | 8x MTP type A magenta | 1 pc |
| 571562 | 470551 | FO-DCS front panel, $8 \times$ MTP, $3 \cup / 7 \mathrm{HP}$ | 8x MTP type A black | 1 pc . |
| 571599 |  | Labelling sheet A4, perforated (blank) |  | 10 pcs . |

MTP is a registered brand name of US Conec.

## DATWYIER DATA GENTRE SOLUTION Patch and fanout cables

## PaTCH AND FANOUT CABLES

## FO-DC Indoor cable MTP® ${ }^{\oplus}$, 12-144 fibres

Sturdy, metal-free indoor cables - provide enhanced crush resistance and rodent protection. Compact, metal-free cable construction with FR/LSOH cable sheath. 12 up to 144 fibres, OM4 or OS2 (G.652.D BLO).
For Duplex and parallel optic signals.
Sticker labelling at both cable ends.
Leg lengths defined on the basis of a specific project (maximum: 4.0 m ), divider housing for single-cable seperation ("legs"), come in protective sleeves. Assembled using MTP 12 connectors (12-fibre Elite ${ }^{\oplus}$ ferrules) MTP ${ }_{8} /$ MTP $_{24}$ on request. Connectivity method: Type A or Type C (other versions on request).
Comes with test reports on all MTP connectors.

| Article No. type A* | Article No. type C* | Description | Cable sheath colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 571751 | 571756 | FO-DC indoor cable MTP-MTP, 12F OM4 | heather violet | by the metre |
| 571752 | 571757 | FO-DC indoor cable MTP-MTP, $2 \times 12$ OM4 | heather violet | by the metre |
| 571753 | 571758 | FO-DC indoor cable MTP-MTP, 4x 12F OM4 | heather violet | by the metre |
| 571754 | 571759 | FO-DC indoor cable MTP-MTP, 8x 12FOM4 | heather violet | by the metre |
| 571755 | 571760 | FO-DC indoor cable MTP-MTP, $12 \times 12 \mathrm{~F}$ OM4 | heather violet | by the metre |
| 571761 | 571766 | FO-DC indoor cable MTP-MTP, 12 F OS2 (G.652.D BLO) | yellow | by the metre |
| 571762 | 571767 | FO-DC indoor cable MTP-MTP, $2 \times 12 \mathrm{O}$ OS2 (G652.D BLO) | yellow | by the metre |
| 571763 | 571768 | FO-DC indoor cable MTP-MTP, $4 \times 12 \mathrm{O}$ OS2 (G.652.D BLO) | yellow | by the metre |
| 571764 | 571769 | FO-DC indoor cable MTP-MTP, $8 \times 12 \mathrm{O}$ OS2 (G.652.D BLO) | yellow | by the metre |
| 571765 | 571770 | FO-DC indoor cable MTP-MTP, 12x 12F OS2 (G.652.D BLO) | yellow | by the metre |

## FO-DC universal cable MTP®, 12-48 fibres

Sturdy, metal-free cables - provide enhanced crush resistance and rodent protection. Compact, metal-free cable construction with FR/LSOH cable sheath.
12 up to 48 fibres, OM3, OM4 or OS2.
For duplex and parallel optic signals.
Sticker labelling at both cable ends.
Leg lengths defined on the basis of a specific project (maximum: 4.0 m ),
divider housing for single-cable seperation ("legs"), come in protective sleeves.
Assembled using MTP connectors (12-fibre Elite ${ }^{\circledR}$ ferrules).
Polarisation mode: type A or C (other types on request).
Comes with test reports on all MTP connectors.


| Article No. type A* | Article No. type C* | Description | Cable sheath colour | PU |
| :---: | :---: | :---: | :---: | :---: |
| 570641 | 570644 | FO-DC universal cable MTP-MTP, 12F, OM3 | turquoise | by the metre |
| 570651 | 570654 | FO-DC universal cable MTP-MTP, 12F, OM4 | heather violet | by the metre |
| 570661 | 570664 | FO-DC universal cable MTP-MTP, 12F, OS2 (G.652.D) | yellow | by the metre |
| 570642 | 570645 | FO-DC universal cable MTP-MTP, $2 \times 12 \mathrm{~F}, \mathrm{OM} 3$ | turquoise | by the metre |
| 570652 | 570655 | FO-DC universal cable MTP-MTP, $2 \times 12 \mathrm{~F}, \mathrm{OM} 4$ | heather violet | by the metre |
| 570662 | 570665 | FO-DC universal cable MTP-MTP, $2 \times 12 \mathrm{~F}, \mathrm{OS} 2$ (G.652.D) | yellow | by the metre |
| 570643 | 570646 | FO-DC universal cable MTP-MTP, $4 \times 12 \mathrm{~F}$, OM3 | turquoise | by the metre |
| 570653 | 570656 | FO-DC universal cable MTP-MTP, 4x 12F, OM4 | heather violet | by the metre |
| 570663 | 570666 | FO-DC universal cable MTP-MTP, 4x 12F, OS2 (G.652.D) | yellow | by the metre |
|  |  |  |  |  |

## DATWYIER DATA OENTRE SOLUTION <br> Patch and fanout tables

## Pre-assembled fibre optic cable variants

Datwyler also supplies its ready-to-install FO cables in pre-assembled variants such as MTP®-on-LCD, LCD-on-LCD, LCD-on-SCD or tailor-made versions for all projects.


Length of shortest leg:
Length of longest leg:
Maximum leg length:
0.45 m minimum for 1 U panel, 0.75 m minimum for 4 U subrack $\mathrm{d}=\mathrm{c}+\mathrm{n} \times 8 \mathrm{~cm}$ 4.0 m

## FO-DCS fanout cables MTP ${ }^{\circledR}$-LCD, 8 fibres

For the conversion of 100 G to $4 \times 25 \mathrm{G}$ or 40 G to $4 \times 10 \mathrm{G}$
Assembled using 1 MTP connector and 4 LCD Uniboot connectors. 8 fibres, OM4 or OS2.
For the quick and space-saving connection of active devices such as switches, servers, storage, etc.
Legs: can be ordered graded in length or of equal length.
Project-specific assemblies are available on request.
Comes with test reports on all connectors.


## FO-DCS fanout cable MTP ${ }^{\ominus}$-LCD, 12 fibres

Assembled using 1 MTP connector and 6 LCD Uniboot connectors. 12 fibres, OM3, OM4 or OS2.
For the quick and space-saving connection of active devices such as switches, servers, storage, etc.
Legs: can be ordered graded in length or of equal length. Project-specific assemblies are available on request.
Comes with test reports on all connectors.


| Article No. type A | Article No. type C | Description | Sheath colour | Length [m] |
| :---: | :---: | :---: | :---: | :---: |
| 571201 | 571211 | FO-DCS fanout cable MTP/f-LCDU, 12F, OM3, graded | turquoise | 2.5 |
| 571202 | 571212 | FO-DCS fanout cable MTP/f-LCDU, 12 F , OM3, equal length | turquoise | 2.5 |
| 571203 | 571213 | FO-DCS fanout cable MTPPf-LCDU, 12F, OM4, graded | heather violet | 2.5 |
| 571204 | 571214 | FO-DCS fanout cable MTP/f-LCDU, 12F, OM4, equal length | heather violet | 2.5 |
| 571205 | 571215 | FO-DCS fanout cable MTP/f-LCDU, $12 \mathrm{~F}, \mathrm{OS} 2$ (GG.652.D), graded | yellow | 2.5 |
| 571206 | 571216 | FO-DCS fanout cable MTP/f-LCDU, 12F, OS2 (G.652.D), equal length | yellow | 2.5 |

## DATWYIER DATA GENTRE SOLUTION <br> Patch and fanout cables

## FO-DCS patch cables MTP-MTP®, 12 fibres

Thin and flexible patch cable (round, $\varnothing 3.0 \mathrm{~mm}$ ) with 12 fibres, OM3 or OM4. Low fire load due to its halogen-free flame-retardant LSZH sheath. Available in standard lengths up to 5 m (other lengths on request). Sticker labelling at both cable ends.
MTP connectors (female) at both cable ends.
Polarisation modes: A, B or C.


Comes with test reports on all connectors.

| Article No. type A | Article No. type B | Article No. type C | Description | Sheath colour | Length [m] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 570901 | 570911 | 570921 | FO-DCS patch cable MTP, 12F, OM3 | turquoise | 1.0 |
| 570931 | 570941 | 570951 | FO-DCS patch cable MTP, 12F, OM4 | heather violet | 1.0 |
| 570902 | 570912 | 570922 | FO-DCS patch cable MTP, 12F, OM | turquoise | 2.0 |
| 570932 | 570942 | 570952 | FO-DCS patch cable MTP, 12F, OM4 | heather violet | 2.0 |
| 570903 | 570913 | 570923 | FO-DCS patch cable MTP, 12F, OM3 | turquoise | 3.0 |
| 570933 | 570943 | 570953 | FO-DCS patch cable MTP, 12F, OM4 | heather violet | 3.0 |
| 571301 | 571311 | 571321 | FO-DCS patch cable MTP, 12F, OS2 | yellow | 1.0 |
| 571302 | 571312 | 571322 | FO-DCS patch cable MTP, 12F, OS2 | yellow | 2.0 |
| 571303 | 571313 | 571323 | FO-DCS patch cable MTP, 12F, OS2 | yellow | 3.0 |

FO-DCS Y patch cables MTP-MTP ${ }^{\circledR}$, 24 fibres

| Article No. type A | Article No. type B | Article No. type C | Description | Sheath colour | Length [m] |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 570961 | 570971 | 570981 | FO-DCS Y patch cable MTP $24-2 \times$ MTP 12, 24F, OM4 | heather violet | 1.0 |
| 570962 | 570972 | 570982 | FO-DCS Y patch cable MTP $24-2 \times$ MTP 12, 24F, OM4 | heather violet | 2.0 |
| 570963 | 570973 | 570983 | FO-DCS Y patch cable MTP $24-2 \times$ MTP12, 24F, OM4 | heather violet | 3.0 |
| 571331 | 571341 | 571351 | FO-DCS Y patch cable MTP $24-3 \times$ MTP8, 24F, OM4 | heather violet | 1.0 |
| 571332 | 571342 | 571352 | FO-DCS Y patch cable MTP $24-3 \times$ MTP8, 24F, OM4 | heather violet | 2.0 |
| 571333 | 571343 | 571353 | FO-DCS Y patch cable MTP $24-3 \times$ MTP8, 24F, OM4 | heather violet | 3.0 |

## FO-DCS patch cable LCD-LCD, 2 fibres

Compact cable construction (round, $\varnothing 2.2 \mathrm{~mm}$ ) with FR/LSZH cable sheath and 2 fibres, OM3, OM4 or OS2,
standard: G.652.D (G.657.A1 or G.657.A2 on request).
Available in standard lengths up to 10 m (other lengths on request).
Sticker labelling at both cable ends.
LCD Uniboot connectors at both cable ends.
Straight polarity (A to A) or cross polarity (A to B).
Comes with test reports on all connectors.


| Description | Colour | Type | Length [m] / Article No. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| FO-DCS patch cable LCDU, PC, 2F, OM3 | turqoise | A to A | 570801 | 570802 | 570803 | 570804 | 570805 | 570806 | 570807 | 570808 | 570809 | 570810 |
| FO-DCS patch cable LCDU, PC, 2F, OM3 | turqoise | A to B | 570821 | 570822 | 570823 | 570824 | 570825 | 570826 | 570827 | 570828 | 570829 | 570830 |
| FO-DCS patch cable LCDU, PC, 2F, OM4 | violet | A to A | 570841 | 570842 | 570843 | 570844 | 570845 | 570846 | 570847 | 570848 | 570849 | 570850 |
| FO-DCS patch cable LCDU, PC, 2F, OM4 | violet | A to B | 570861 | 570862 | 570863 | 570864 | 570865 | 570866 | 570867 | 570868 | 570869 | 570870 |
| FO-DCS patch cable LCDU, PC, 2F, OS2 | yellow | A to A | 570721 | 570722 | 570723 | 570724 | 570725 | 570726 | 570727 | 570728 | 570729 | 570730 |
| FO-DCS patch cable LCDU, PC, 2F, OS2 | yellow | A to B | 570741 | 570742 | 570743 | 570744 | 570745 | 570746 | 570747 | 570748 | 570749 | 570750 |
| FO-DCS patch cable LCDU, APC, 2F, OS2 | yellow | A to A | 570761 | 570762 | 570763 | 570764 | 570765 | 570766 | 570767 | 570768 | 570769 | 570770 |
| FO-DCS patch cable LCDU, APC, 2F, OS2 | yellow | A to B | 570781 | 570782 | 570783 | 570784 | 570785 | 570786 | 570787 | 570788 | 570789 | 570790 |
| FO-DCS patch cable LCDU, APC/PC, 2F, OS2 | yellow | AtoA | 570701 | 570702 | 570703 | 570704 | 570705 | 570706 | 570707 | 570708 | 570709 | 570710 |
| FO-DCS patch cable LCDU, APC/PC, 2F, OS2 | yellow | A to B | 570711 | 570712 | 570713 | 570714 | 570715 | 570716 | 570717 | 570718 | 570719 | 570720 |

## DATWYIER DATA OENTRE SOLUTION <br> Copper cassettes / Cleaning tools

## CU-DCS plug-in modules for 6 RJ45 Keystone modules

For the insertion of up to 6 RJ45 modules.
Delivery without modules.
Enables data transmission via copper and fibre optics in parallel in

- FO-DCS modular panel, 19"/1U
- FO-DCS modular subrack, 19"/4U

Plug-in module for 6 RJ45 Keystone modules

| Article No. | Description | Material/colour | PU |
| :---: | :---: | :---: | :---: |
| 440046 | Plug-in module for 6x RJ45 module Keystone (without modules) | stainless steel, blank | 1 pc. |
| 440055 | Plug-in module for 6x RJ45 module Keystone (without modules) | black | 1 pc |

## CLEANNG TOOLS

The cleanliness of high-quality FO connectors is critical for satisfactory optical performance and long-term trouble-free transmission. Connectors that are dirty, worn or scratched due to improper use will have a negative effect on optical performance because the Insertion
 Loss (IL) increases whilst the Return Loss (RL) falls.

All FO-related cabling standards point out that professional cleaning tools are necessary to ensure successful acceptance tests and trouble-free patching.

For professional cleaning of FO connectors (e.g. MPO/MTP®) the equipment as featured in Datwyler's FO accessories portfolio is particularly suitable.


| Article No. | Fig. | Description | Items cleaned/ method | PU |
| :---: | :---: | :---: | :---: | :---: |
| 1411400 | 1 | Reel Cleaner | FO connector | 1 pc . |
| 1411401 | - | Replacement reels for Reel Cleaner |  | 6 pcs. |
| 415627 | 2 | FO connector cleaning device for MPO/MTP | FO connector and through adapter | 1 pc |
| 415628 | 3 | FO connector cleaning device for 2.5 mm | FO connector and through adapter | 1 pc |
| 415629 | - | FO connector cleaning device for 1.25 mm | FO connector and through adapter | 1 pc . |
| 1411404 | 4 | Cleaning rod for 2.5 mm | Sleeve in connector | 10 pcs . |
| 1411405 | - | Cleaning rod for 1.25 mm | Sleeve in co-------10r | 10 pcs . |

## ITrRAGISAND AGGESSORIES



## Solutions for every requirement

A well-chosen rack or cabinet will not only look good, but will add security, increase the lifespan of your devices and also make it easier to maintain the equipment inside, so saving you money and time.

The Datwyler IT racks are as varied as the requirements of our customers. The range includes Standard and Premium racks as well as wall-mounted racks of various sizes, dimensions and configurations. The racks can be adapted to the intended configuration, the relevant cooling concepts, the cabling and/or your safety requirements.

Our wide range of rack accessories includes fans, lighting, earthing and equipotential bonding sets, PDUs, cable management kits, shelves, faceplates and individual doors to coordinate with the cabinets, as well as a lot more besides.

| Type | Server Rack |  | Network Rack |  | Wall Mount Rack |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Standard | Premium | Standard | Premium | Premium |
| Front | Perforated door |  | Safety glass door |  | Safety glass door |
| Back | Perforated door |  | Sheet steel panel |  | Sheet steel panel |
| Locktype | 1 point | 3 points | 1 point | 3 points | 1 point |
| Max. Ioad capacity | 1000 kg | 1500 kg | 500 kg | 800 kg | 30 to 40 kg |
| Height | 42 or 48 U |  | $21,27,33,42$ or 48 U |  | $6,9,12,15$ or 18 U |

## IT RACKS AND ACCESSORIES

Datwyler offer a wide range of racks and cabinets. Below is a selection from our product range.
In order to find the ideal solution for your installation, please contact us. Our local sales office will be pleased to assist you.

## SERVER RACKS

## Server Racks Premium DSRP 19"/42U and 48U

with perforated doors

## Application

The Datwyler Server Racks Premium DSRP are heavy-duty cabinets with fully welded frames especially designed for data centres, server rooms and comms rooms Its load capacity of up to 1500 kg makes it possible to install even heavy equipment within a footprint of a standard rack.


## Features

Size:

Construction:
Load capacity:
19 inch profiles:
IP rating:
Colour:
Front / rear doors:
Side panels:
Top panels:
Bottom panels:
Feet:
Delivery:

Optional accessories:

Height: 42 U and 48U
Width: 600 mm
Depth: 1000 or 1200 mm
Welded sheet steel frame ( 2.0 mm , partially 1.5 mm )
1500 kg , balanced on 19-inch vertical profiles
2 pairs of 19-inch vertical profiles, 600 mm , front / rear, stepless depth adjustment from inside, with U label IP20
RAL 9005 (black), RAL7035 (light grey)
One-piece perforated doors, 86\% perforation, with swivel handle lock, DIN profile, universal key 333, 3 -point locking, up to $180^{\circ}$ aperture angle; front door can be hinged right or left
Removable, locks with universal key
One-piece (D: 1000 mm ) or multi-piece (D: 1200 mm ), removable, 100 mm round cable entry hole with plastic cover in each corner, 2-4 additional $300 \times 100 \mathrm{~mm}$ cable entry holes, covered with sheet steel plates Multi-piece, removable, 100 mm round cable entry hole with plastic cover in each corner, 2-4 additional $300 \times 100 \mathrm{~mm}$ cable entry holes, covered with sheet steel plates
Set of 4 adjustable feet
Fully assembled and packed, including installation instructions.
Comes with pre-installed flat earthing kit and mounting kits (screws, cage nuts, washers).
2-door sets, plinths, castors, rack baying kits, etc.
(see from page 97 or visit www.cabling.datwyler.com)

| Article No. | Description | Load <br> kg | Weight $\mathrm{kg}$ | Dimensions [ $\mathrm{HxW} \times \mathrm{D}$ ] | Colour |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 195000 | Server Rack Premium DSRP-42-60/100 | 1500 | 135 | $42 \mathrm{U}, 1978 \times 600 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195001 | Server Rack Premium DSRP-42-60/120 | 1500 | 149 | $42 \mathrm{U}, 1978 \times 600 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195264 | Server Rack Premium DSRP-42-80/80 | 1500 | 134 | $42 \mathrm{U}, 1978 \times 800 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195115 | Server Rack Premium DSRP-42-80/100 | 1500 | 157 | $42 \mathrm{U}, 1978 \times 600 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195116 | Server Rack Premium DSRP-42-80/120 | 1500 | 175 | $42 \mathrm{U}, 1978 \times 800 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195002 | Server Rack Premium DSRP-48-60/100 | 1500 | 148 | $48 \mathrm{U}, 2245 \times 600 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195003 | Server Rack Premium DSRP-48-60/120 | 1500 | 178 | $48 \mathrm{U}, 2245 \times 600 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195117 | Server Rack Premium DSRP-48-80/100 | 1500 | 173 | $48 \mathrm{U}, 2245 \times 800 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195118 | Server Rack Premium DSRP-48-80/120 | 1500 | 208 | $48 \mathrm{U}, 2245 \times 800 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195111 | Server Rack Premium DSRP-42-60/100 | 1500 | 135 | $42 \mathrm{U}, 1978 \times 600 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195112 | Server Rack Premium DSRP-42-60/120 | 1500 | 149 | $42 \mathrm{U}, 1978 \times 600 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195265 | Server Rack Premium DSRP-42-80/80 | 1500 | 134 | $42 \mathrm{U}, 1978 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195119 | Server Rack Premium DSRP-42-80/100 | 1500 | 157 | $42 \mathrm{U}, 1978 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195120 | Server Rack Premium DSRP-42-80/120 | 1500 | 175 | $42 \mathrm{U}, 1978 \times 800 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195113 | Server Rack Premium DSRP-48-60/100 | 1500 | 148 | $480,2245 \times 600 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195114 | Server Rack Premium DSRP-48-60/120 | 1500 | 178 | $480,2245 \times 600 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195121 | Server Rack Premium DSRP-48-80/100 | 1500 | 173 | $480,2245 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195122 | Server Rack Premium DSRP-48-80/120 | 1500 | 208 | $48 \mathrm{U}, 2245 \times 800 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |

## SERVER RACKS

## Server Racks Standard DSRS <br> 19"/42U

with perforated doors

## Application

The Datwyler Server Racks Standard DSRS are designed to provide good-quality cabinets that offer an unrivaled cost-performance ratio

## Features

Size:

Construction:
Load capacity:
19 inch profiles:

IP rating:
Colour:
Front / rear doors:

Side panels:
Delivery:
Optional accessories:

Height: 42U
Width: 600 or 800 mm
Depth: 1000 or 1200 mm
Welded sheet steel frame ( 1.5 mm )
1000 kg , balanced on 19-inch vertical profiles
2 pairs of 19-inch vertical profiles (front/rear), with U label, stepless depth adjustment from inside;
cabinets of 800 mm width offer 3 additional vertical
19"/2U positions per 19-inch extrusion
IP20
RAL 9005 (black) or RAL 7035 (light grey)
One-piece perforated doors, 86\% perforation, with swivel handle lock,
DIN profile, universal key 333 , single point locking, up to $180^{\circ}$ aperture angle;
front door can be hinged right or left
Removable, locks with universal key
Fully assembled and packed, including installation instructions;
comes with pre-installed flat earthing kit and 28 pcs. mounting kit
Plinths, fan ventilation units, castors, rack baying kits, etc.
(see from page 97 or visit www.cabling.datwyler.com)

| Article No. | Description | $\begin{aligned} & \text { Load } \\ & \mathrm{kg} \\ & \hline \end{aligned}$ | Weight $\mathrm{kg}$ | Dimensions [ $\mathrm{H} x W \times \mathrm{D}$ ] | Colour |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 195420 | Server Rack Standard DSRS-42-60/100 | 1000 | 114 | $42 \mathrm{U}, 2000 \times 600 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195424 | Server Rack Standard DSRS-42-60/120 | 1000 | 139 | $420,2000 \times 600 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195421 | Server Rack Standard DSRS-42-80/100 | 1000 | 133 | $42 \mathrm{U}, 2000 \times 800 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195425 | Server Rack Standard DSRS-42-80/120 | 1000 | 158 | $42 \mathrm{U}, 2000 \times 800 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195422 | Server Rack Standard DSRS-42-60/100 | 1000 | 114 | $42 \mathrm{U}, 2000 \times 600 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195426 | Server Rack Standard DSRS-42-60/120 | 1000 | 139 | $42 \mathrm{U}, 2000 \times 600 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195423 | Server Rack Standard DSRS-42-80/100 | 1000 | 133 | $42 \mathrm{U}, 2000 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195427 | Server Rack Standard DSRS-42-80/120 | 1000 | 158 | $42 \mathrm{U}, 2000 \times 800 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |

More dimensions available on request

## IT RACKS AND ACCESSORIES

## NETWORK RACKS

## Network Racks Premium DNRP <br> 19"/27U, 42U and 48U

with glass front door \& steel rear door RAL 7035 and RAL 9005

## Application

The Datwyler Nework Racks Premium DNRP are cabinets with fully welded frames and high load capacities designed for data centres, server rooms and comms rooms

## Features

Sizes:

Construction:
Load capacity:
19-inch profiles:
IP rating:
Colours:
Front / rear doors:

Side panels:
Top panels:

Bottom panels:
Feet:
Delivery:
Optional accessories:

Height: 27U, 42U and 48U
Width: 800 mm
Depth: 800, 1000, 1200 mm
Welded sheet steel frame ( 2.0 mm , partially 1.5 mm ) $800 \mathrm{~kg}(42 / 48 \mathrm{U}), 400 \mathrm{~kg}$ (27U), balanced on 19-inch vertical profiles
2 pairs of 19-inch vertical profiles, front / rear,
adjustable from inside, with $\cup$ label
IP40 (IP54 on request)
RAL 9005 (black) or RAL 7035 (light grey).
Tinted safety glass front door, sheet steel rear door, non-perforated, both with swivel handle lock, DIN profile, universal key 333, 3-point locking, up to $180^{\circ}$ aperture angle.
Doors can be hinged right or left
Removable, locks with universal key
One-piece (D: 800/1000 mm ) or multi-piece (D: 1200 mm ), removable, 100 mm round cable entry hole with plastic cover in each corner, 2 additional $300 \times 100 \mathrm{~mm}$ cable entry holes, 2-4 additional $300 \times 50 \mathrm{~mm}$ cable entry holes and 1-2 openings for the installation of fan ventilation units,
each covered with a sheet steel plate
Multi-piece, removable, 100 mm round cable entry hole with plastic cover in each corner,
$5-8$ additional $300 \times 100 \mathrm{~mm}$ cable entry holes, covered with sheet steel plates
4 adjustable feet
Fully assembled and packed, including installation instructions;
comes with pre-installed flat earthing kit and 28 pcs. mounting kits (screws, cage nuts, washers) 2-door sets, plinths, castors, rack baying kits, etc. (see from page 97 or visit www.cabling.datwyler.com)

| Article No. | Description | $\begin{aligned} & \text { Load } \\ & \mathrm{kg} \\ & \hline \end{aligned}$ | $\begin{aligned} & \text { Weight } \\ & \text { kg } \end{aligned}$ | Dimensions [ $\mathrm{HxW} \times \mathrm{D}$ ] | Colour |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 195012 | Network Rack Premium DNRP-27-80/100 | 400 | 124 | $27 \mathrm{U}, 1311 \times 800 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195008 | Network Rack Premium DNRP-42-80/100 | 800 | 157 | $42 \mathrm{U}, 1978 \times 800 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195009 | Network Rack Premium DNRP-42-80/120 | 800 | 175 | $42 \mathrm{U}, 1978 \times 800 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195010 | Network Rack Premium DNRP-48-80/100 | 80 | 173 | $48 \mathrm{U}, 2245 \times 800 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195011 | Network Rack Premium DNRP-48-80/120 | 800 | 208 | $48 \mathrm{U}, 2245 \times 800 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195020 | Network Rack Premium DNRP-27-80/80 | 400 | 100 | $27 \mathrm{U}, 1311 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195021 | Network Rack Premium DNRP-27-80/100 | 400 | 124 | $27 \mathrm{U}, 1311 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195014 | Network Rack Premium DNRP-42-80/80 | 800 | 134 | $42 \mathrm{U}, 1978 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195015 | Network Rack Premium DNRP-42-80/100 | 800 | 157 | $42 \mathrm{U}, 1978 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195016 | Network Rack Premium DNRP-42-80/120 | 800 | 175 | $42 \mathrm{U}, 1978 \times 800 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195017 | Network Rack Premium DNRP-48-80/80 | 800 | 147 | $48 \mathrm{U}, 2245 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195018 | Network Rack Premium DNRP-48-80/100 | 800 | 173 | $48 \mathrm{U}, 2245 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195019 | Network Rack Premium DNRP-48-80/120 | 800 | 208 | $480,2245 \times 800 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |

More dimensions available on request

## NETWORK RACKS

## Network Racks Standard DNRS 19"/ 21U, 27U, 33U, 42U and 48U

## Application

The Datwyler Network Racks Standard DNRS are designed to provide good-quality cabinets that offer an unrivaled cost-performance ratio

## Features

Sizes:

Construction: Load capacities:

19 inch profiles:

## IP rating:

Colour:
Front door:

Rear panel:
Side panels:
Delivery:
Optional accessories:

Height: $21 \mathrm{U}, 27 \mathrm{U}, 33 \mathrm{U}, 42 \mathrm{U}$ and 48 U
Width: 600 or 800 mm
Depth: 600-1200 mm
Welded sheet steel frame ( 1.5 mm )
$600 \mathrm{~kg}(48 \mathrm{U}), 500 \mathrm{~kg}(42 \mathrm{U}), 300 \mathrm{~kg}(33 / 27 / 21 \mathrm{U})$,
balanced on 19 -inch vertical profiles
2 pairs of 19-inch vertical profiles, front / rear,
adjustable from inside, with U label
IP30
RAL 9005 (black) or RAL 7035 (light grey)
With tinted safety glass and swivel handle lock, DIN profile, universal key 333 , single point locking, up to $180^{\circ}$ aperture angle, door can be hinged right or left
Sheet steel, removable, with knock-out cable entry, lock with universal key
Removable, locks with universal key
Fully assembled and packed, including installation instructions;
comes with pre-installed flat earthing kit and 28 pcs. mounting kits (screws, cage nuts, washers)
Plinths, fan ventilation units, castors, rack baying kits, etc.
(see from page 97 or visit www.cabling.datwyler.com)

| Article No. | Description | Load <br> kg | Weight <br> kg | Dimensions [ $\mathrm{HxW} \times \mathrm{D}$ ] | Colour |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 195433 | Network Rack Standard DNRS-21-60/60 | 300 | 52 | 21U, $1045 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195431 | Network Rack Standard DNRS-21-60/80 | 300 | 61 | $214,1045 \times 600 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195432 | Network Rack Standard DNRS-21-80/80 | 300 | 72 | $210,1045 \times 800 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195444 | Network Rack Standard DNRS-27-60/60 | 300 | 61 | $27 \mathrm{U}, 1300 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195445 | Network Rack Standard DNRS-27-60/80 | 300 | 70 | $2701300 \times 600 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195446 | Network Rack Standard DNRS-27-80/80 | 300 | 83 | $27 \mathrm{U}, 1300 \times 800 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195434 | Network Rack Standard DNRS-33-60/60 | 300 | 68 | $33 \mathrm{U}, 1700 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195430 | Network Rack Standard DNRS-42-60/60 | 500 | 83 | $42 \mathrm{U}, 2000 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195428 | Network Rack Standard DNRS-42-60/80 | 500 | 94 | $42 \mathrm{U}, 2000 \times 600 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195429 | Network Rack Standard DNRS-42-80/80 | 500 | 113 | $42 \mathrm{U}, 2000 \times 800 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195454 | Network Rack Standard DNRS-42-80/100 | 500 | 133 | $42 \mathrm{U}, 2000 \times 800 \times 1000 \mathrm{~mm}$ | black, RAL 9005 |
| 195455 | Network Rack Standard DNRS-42-80/120 | 500 | 158 | $42 \mathrm{U}, 2000 \times 800 \times 1200 \mathrm{~mm}$ | black, RAL 9005 |
| 195435 | Network Rack Standard DNRS-48-60/80 | 600 | 112 | $48 \mathrm{U}, 2200 \times 600 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195436 | Network Rack Standard DNRS-48-80/80 | 600 | 134 | $48 \mathrm{U}, 2200 \times 800 \times 800 \mathrm{~mm}$ | black, RAL 9005 |
| 195442 | Network Rack Standard DNRS-21-60/60 | 300 | 52 | $21 \mathrm{U}, 1045 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195440 | Network Rack Standard DNRS-21-60/80 | 300 | 61 | $21 \mathrm{U}, 1045 \times 600 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195441 | Network Rack Standard DNRS-21-80/80 | 300 | 72 | $21 \mathrm{U}, 1045 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195447 | Network Rack Standard DNRS-27-60/60 | 300 | 61 | $27 \mathrm{U}, 1300 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195448 | Network Rack Standard DNRS-27-60/80 | 300 | 70 | $27 \mathrm{U}, 1300 \times 600 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195449 | Network Rack Standard DNRS-27-80/80 | 300 | 83 | $270,1300 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195443 | Network Rack Standard DNRS-33-60/60 | 300 | 68 | $33 \mathrm{U}, 1700 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195439 | Network Rack Standard DNRS-42-60/60 | 500 | 83 | $42 \mathrm{U}, 2000 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195437 | Network Rack Standard DNRS-42-60/80 | 500 | 94 | $42 \mathrm{U}, 2000 \times 600 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195438 | Network Rack Standard DNRS-42-80/80 | 500 | 113 | $42 \mathrm{U}, 2000 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195452 | Network Rack Standard DNES-42-80/100 | 500 | 133 | $42 \mathrm{U}, 2000 \times 800 \times 1000 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195453 | Network Rack Standard DNRS-42-80/120 | 500 | 158 | $42 \mathrm{U}, 2000 \times 800 \times 1200 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195450 | Network Rack Standard DNRS-48-60/80 | 600 | 112 | $48 \mathrm{U}, 2200 \times 600 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195451 | Network Rack Standard DNRS-48-80/80 | 600 | 134 | $48 \mathrm{U}, 2200 \times 800 \times 800 \mathrm{~mm}$ | light grey, RAL 7035 |

More dimensions available on request
For higher load capacity and cable management requirements: see the "Premium" racks on our website.

## IT RACKS AND ACCESSORIES

## WALL-MOUNTED RACKS

## Wall-Mount Racks Premium DWMR 19"/ 9U, 12U, 15U and 18U

## Application

The Datwyler Wall-Mount Racks DWMR are designed to host patch panels, active components and other data network equipment. They offer an extended access level from all sides thanks to removable (and lockable) side panels.


Wall-Mount Rack Premium DWMR, $9 \mathrm{U}, 600 \times 500 \mathrm{~mm}$

## Features

Sizes:

Construction:
Load capacities:
IP rating:
Colours:
Front door:

Rear panel:

Standard configuration:

Delivery:
Optionally available:
Height: 6U, 9 U ( 491 mm ), 12U (624 mm), 15U (758 mm), 18U (891 mm)
Width: 600 mm
Depth (usable depth): 400 mm ( 380 mm ), $500 \mathrm{~mm}(480 \mathrm{~mm}$ ) and $600 \mathrm{~mm}(580 \mathrm{~mm})$
Welded sheet steel frame ( 1.25 mm )
40 kg (D: 500 mm ), 30 kg (D: 600 mm )
IP30
RAL 7035 (light grey) or RAL 9005 (black)
With tinted safety glass and
round lock, universal key 333,
up to $180^{\circ}$ aperture angle,
door can be hinged right or left (easy to change)
Removable, with $150 \times 56 \mathrm{~mm}$ knock-out panel
and pre-punched holes for wall-mount installation
(cabinet can also be installed without rear panel)
1 pair of adjustable 19-inch' vertical profiles with U label,
2 removable side panels, each with universal lock,
tinted safety glass door with universal round lock, pre-installed flat earthing kit,
16 pcs. mounting set: screws, cage nuts and washers
Fully assembled and packed, including 2 keys and drilling template
1 additional pair of adjustable 19-inch profiles (rear), spare key, cable entry panel with brush
More configurations are available on request.

| Article No. | Description | Load kg | Weight kg | Dimensions [ $\mathrm{HxW} \times \mathrm{D}$ ] | Colour |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 195099 | Wall Mount Rack Premium DWMR-9-60/50 | 40 | 23 | $9 \mathrm{U}, 500 \times 600 \times 500 \mathrm{~mm}$ | black, RAL 9005 |
| 195103 | Wall Mount Rack Premium DWMR-9-60/60 | 30 | 26 | $9 \mathrm{C}, 500 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195100 | Wall Mount Rack Premium DWMR-12-60/50 | 40 | 26 | $12 \mathrm{U}, 630 \times 600 \times 500 \mathrm{~mm}$ | black, RAL 9005 |
| 195104 | Wall Mount Rack Premium DWMR-12-60/60 | 30 | 29 | $12 \mathrm{U}, 630 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195101 | Wall Mount Rack Premium DWMR-15-60/50 | 40 | 30 | $15 \mathrm{U}, 760 \times 600 \times 500 \mathrm{~mm}$ | black, RAL 9005 |
| 195105 | Wall Mount Rack Premium DWMR-15-60/60 | 30 | 33 | $15 \mathrm{U}, 760 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 195102 | Wall Mount Rack Premium DWMR-18-60/50 | 40 | 36 | $18 \mathrm{U}, 900 \times 600 \times 500 \mathrm{~mm}$ | black, RAL 9005 |
| 195106 | Wall Mount Rack Premium DWMR-18-60/60 | 30 | 39 | $18 \mathrm{U}, 900 \times 600 \times 600 \mathrm{~mm}$ | black, RAL 9005 |
| 19546100ZY | Wall Mount Rack Premium DWMR-6-60/40 | 40 | 12,5 | $6 \mathrm{~L}, 358 \times 600 \times 400 \mathrm{~mm}$ | light grey, RAL 7035 |
| 19546200ZY | Wall Mount Rack Premium DWMR-6-60/40 | 40 | 16 | $6 \mathrm{U}, 358 \times 600 \times 500 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195033 | Wall Mount Rack Premium DWMR-9-60/50 | 40 | 23 | $94,500 \times 600 \times 500 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195037 | Wall Mount Rack Premium DWMR-9-60/60 | 30 | 26 | $90,500 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195034 | Wall Mount Rack Premium DWMR-12-60/50 | 40 | 26 | $12 \mathrm{U}, 630 \times 600 \times 500 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195038 | Wall Mount Rack Premium DWMR-12-60/60 | 30 | 29 | $12 \mathrm{U}, 630 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195035 | Wall Mount Rack Premium DWMR-15-60/50 | 40 | 30 | $150,760 \times 600 \times 500 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195039 | Wall Mount Rack Premium DWMR-15-60/60 | 30 | 33 | $150,760 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195036 | Wall Mount Rack Premium DWMR-18-60/50 | 40 | 36 | $18 \mathrm{U}, 900 \times 600 \times 500 \mathrm{~mm}$ | light grey, RAL 7035 |
| 195040 | Wall Mount Rack Premium DWMR-18-60/60 | 30 | 39 | $18 \mathrm{U}, 900 \times 600 \times 600 \mathrm{~mm}$ | light grey, RAL 7035 |

## ACCESSORIES CABLE MANAGEMENT

| Cable management | Article No. | Description | Suitable for | Colour | PU |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $111111111011$ | $\begin{aligned} & 195041 \\ & 195042 \\ & 195043 \end{aligned}$ | Horizontal cable management unit, 10 fingers, removeable cover, depth: 112 mm , incl. mounting kit 1 U <br> 2 U <br> $3 U$ | all racks | black <br> black <br> black | $\begin{aligned} & 1 \\ & 1 \\ & 1 \end{aligned}$ |
|  | $\begin{aligned} & 195204 \\ & 195205 \end{aligned}$ | Horizontal cable management holders $\begin{aligned} & \text { depth }=600 \mathrm{~mm} \\ & \text { depth }=800 \mathrm{~mm} \end{aligned}$ | DNRS/DSRS <br> all racks | black <br> black | $1$ |
|  | $\begin{aligned} & 195220 \\ & 195097 \\ & 195098 \\ & 195221 \end{aligned}$ | 19" cable management panel, 5 plastic rings, 4 holes for cable entry <br> $1 \mathrm{U}, 40 \times 50 \mathrm{~mm}$ rings <br> $1 \mathrm{U}, 40 \times 80 \mathrm{~mm}$ rings <br> $2 \mathrm{U}, 80 \times 60 \mathrm{~mm}$ rings <br> $2 \mathrm{U}, 80 \times 80 \mathrm{~mm}$ rings | all racks | black <br> black <br> black <br> black | $\begin{aligned} & 1 \\ & 1 \\ & 1 \end{aligned}$ |
|  | $\begin{aligned} & 1411604 \\ & 1407689 \\ & 418200 \\ & 1411480 \\ & 1411481 \\ & 1411482 \end{aligned}$ | Management panel $19^{\prime \prime} / 1 \cup$ for 5 support brackets (delivery without brackets) Management panel $19^{\prime \prime} / 1 \mathrm{U}$ for 5 support brackets (delivery without brackets) Management panel 19"/1U for 5 support brackets (delivery without brackets) Support bracket, depth: 60 mm plastic Support bracket, depth: 75 mm metal Support bracket, depth: 110 mm metal |  | grey <br> black <br> stainless steel <br> black | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |
|  | $\begin{aligned} & 185735 \\ & 185736 \end{aligned}$ | Management panel, $19^{\prime \prime} / 1 \mathrm{U}$, with 4 metal brackets Management panel, 19 "/2U, with 4 metal brackets |  | $\begin{aligned} & \text { grey } \\ & \text { grey } \end{aligned}$ | $\begin{aligned} & 1 \\ & 1 \end{aligned}$ |
|  | $\begin{aligned} & 195139 \\ & 195140 \\ & 195141 \end{aligned}$ | Cable bracket, metal, for vertical cable management <br> side entry, zinc plated $100 \times 140 \mathrm{~mm}$ front entry, zinc plated $100 \times 140 \mathrm{~mm}$ front entry, zinc plated $100 \times 100 \mathrm{~mm}$ | all racks |  | $\begin{aligned} & 10 \\ & 10 \\ & 10 \end{aligned}$ |
|  | 195044 | HD Cable manager - vertical <br> $42 \mathrm{U}, 100 \times 112 \mathrm{~mm}$, with 41 fingers, high density | all racks <br> 42 U | black | 1 set |
|  | $\begin{aligned} & 195235 \\ & 195237 \\ & 195239 \\ & 195241 \\ & 195243 \end{aligned}$ | Vertical cable manager with plastic duct <br> $15 \mathrm{U}, 80 \times 60 \mathrm{~mm}$ <br> $33 \mathrm{U}, 80 \times 60 \mathrm{~mm}$ <br> $21 \mathrm{U}, 80 \times 60 \mathrm{~mm}$ <br> $27 \mathrm{U}, 80 \times 60 \mathrm{~mm}$ <br> $42 \mathrm{U}, 80 \times 60 \mathrm{~mm}$ | $\begin{aligned} & 800 \mathrm{~mm} \\ & \text { wide DNRS } \end{aligned}$ | black <br> black <br> black <br> black <br> black | $\begin{aligned} & 1 \\ & 1 \\ & 1 \\ & 1 \\ & 1 \end{aligned}$ |
|  | $\begin{aligned} & 195236 \\ & 195238 \\ & 195240 \\ & 195242 \\ & 195244 \end{aligned}$ | Holder for vertical cable manager for 15U, 80 mm (Article No. 195235) for 33U, 80 mm (Article No. 195237) for 21U, 80 mm (Article No. 195239) for 27U, 80 mm (Article No. 195241) for 42U, 80 mm (Article No. 195243) | $\begin{aligned} & 800 \mathrm{~mm} \\ & \text { wide DNRS } \end{aligned}$ | black <br> black <br> black <br> black <br> black | $\begin{aligned} & 2 \\ & 2 \\ & 2 \\ & 2 \\ & 2 \end{aligned}$ |
|  | $\begin{aligned} & 195313 \\ & 195309 \\ & 195307 \end{aligned}$ | C-Rail 1145 mm , with mounting materials C-Rail 945 mm , with mounting materials C-Rail 745 mm , with mounting materials | all racks |  | $\begin{aligned} & 1 \text { set } \\ & 1 \text { set } \\ & 1 \text { set } \end{aligned}$ |
| Herecererecerecat | $195308$ <br> on request on request | Cable clamp rail 745 mm , for rack depth 800 mm Cable clamp rai for Racks rack depth 1000 mm Cable clamp rai for Racks rack depth 1200 mm | all racks all racks all racks |  | $\begin{aligned} & 1 \\ & 1 \\ & 1 \end{aligned}$ |

## ACCESSORIES - STRUCTURE

|  | Article No. | Description | Suitable for | Colour |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |


| Panels \& Plates | Article No. | Description | Suitable for | Colour | PU |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 195060 | Dust protection panel for $300 \times 100 \mathrm{~mm}$ prepunched openings in racks, 2 brush layers | all racks | black | 1 |
|  |  | 19" blank plate set for covering unused height units in the racks, sheet steel, screwable, without mounting kit (see article no. 401261) | all racks |  |  |
|  | 195061 | 1 U |  | black | 5 |
|  | 195065 | 1 U |  | light grey | 5 |
|  | 195062 | 2 U |  | black | 5 |
|  | 195066 | 2 U |  | light grey | 5 |
|  | 195063 | 3 U |  | black | 5 |
|  | 195067 | 3 U |  | light grey | 5 |
|  | 195064 | 5 U |  | black | 5 |
|  | 195068 | 5 U |  | light grey | 5 |

## ACCESSORIES - STRUCTURE

| Panels \& Plates | Article No. | Description | Suitable for | Colour | PU |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 19" blank plate set for covering unused height units in the racks, tool-less (with 1/4-turn fastener) | all racks |  |  |
|  | 195184 | 1 U |  | black | 5 pcs. |
|  | 195185 | 2 U |  | black | 5 pcs . |
|  | 195186 | 3 U |  | black | 5 pcs . |
|  | 195187 | 1 U |  | light grey | 5 pcs . |
|  | 195188 | 2 U |  | light grey | 5 pcs . |
|  | 195189 | 3 U |  | light grey | 5 pcs. |
|  | 195230 | $19^{\prime \prime}$ vented panel, with brush, for front to rear cabling, minimizes by-pass airflow through the brush; <br> sheet steel, powder coated, screwable; delivery without mounting kit | all racks | black | 1 |


| Shelves | Article No. | Description | Suitable for | Colour | PU |
| :---: | :---: | :---: | :---: | :---: | :---: |
| * |  | 19" shelves, 20 kg load capacity per shelf quick fastening with two brackets | all racks |  |  |
|  | 195148 | 1U, 250 mm depth |  | light grey | 1 pc. |
|  | 195161 | $1 \mathrm{U}, 350 \mathrm{~mm}$ depth |  | light grey | 1 pc . |
|  | 195162 | $1 \mathrm{U}, 450 \mathrm{~mm}$ depth |  | light grey | 1 pc. |
|  | 195163 | $1 \mathrm{U}, 550 \mathrm{~mm}$ depth |  | light grey | 1 pc . |
|  | 195164 | $1 \mathrm{U}, 650 \mathrm{~mm}$ depth |  | light grey | 1 pc. |
|  | 195165 | $1 \mathrm{U}, 750 \mathrm{~mm}$ depth |  | light grey | 1 pc. |
|  | 195147 | $1 \mathrm{U}, 250 \mathrm{~mm}$ depth |  | black | 1 pc. |
|  | 195082 | $1 \mathrm{U}, 350 \mathrm{~mm}$ depth |  | black | 1 pc. |
|  | 195083 | $1 \mathrm{U}, 450 \mathrm{~mm}$ depth |  | black | 1 pc. |
|  | 195084 | $1 \mathrm{U}, 550 \mathrm{~mm}$ depth |  | black | 1 pc. |
|  | 195085 | $1 \mathrm{U}, 650 \mathrm{~mm}$ depth |  | black | 1 pc . |
|  | 195086 | $1 \mathrm{U}, 750 \mathrm{~mm}$ depth |  | black | 1 pc. |
|  |  | 19 " telescopic shelves, 60 kg load capacity per shelf, incl. telescopic slides | all racks |  |  |
|  | 195166 | $2 \mathrm{U}, 450 \mathrm{~mm}$ depth |  | light grey | 1 pc. |
|  | 195167 | $2 \mathrm{U}, 550 \mathrm{~mm}$ depth |  | light grey | 1 pc . |
|  | 195168 | $2 \mathrm{U}, 650 \mathrm{~mm}$ depth |  | light grey | 1 pc. |
|  | 195087 | $2 \mathrm{U}, 450 \mathrm{~mm}$ depth |  | black | 1 pc . |
|  | 195088 | $2 \mathrm{U}, 550 \mathrm{~mm}$ depth |  | black | 1 pc. |
|  | 195089 | 2U, 650 mm depth |  | black | 1 pc . |
|  |  | 19" high load shelf set, 100 kg maximum load, with 1 high load shelf, 4 mounting brackets, screws and nuts | all racks |  |  |
|  | 195173 | 1 U shelf, high load, 450 mm , mounting distance: $113-463 \mathrm{~mm}$ |  | black | 1 set |
|  | 195174 | 1 U shelf, high load, 550 mm , mounting distance: $213-563 \mathrm{~mm}$ |  | black | 1 set |
|  | 195175 | 1 U shelf, high load, 650 mm , mounting distance: 313-663 mm |  | black | 1 set |
|  |  | 19" telescopic high load shelf set, 80 kg maximum load, completely assembled, incl. telescopic slides, without screws/nuts | all racks |  |  |
|  | 195179 | 1 U shelf, telescopic, high load, 450 mm , mounting distance: 296-507 mm, depth: 471 mm |  | black | 1 set |
|  | 195174 | 1 U shelf, telescopic, high load, 550 mm , mounting distance: $406-607 \mathrm{~mm}$, depth: 571 mm |  | black | 1 set |
|  | 195182 | Support bracket for shelves - short, 88 mm (according to combination rack/shelf) |  |  | 1 pair |
|  | 195183 | Support bracket for shelves - long, 289 mm (according to combination rack/shelf) |  |  | 1 pair |

## IT RACKS AND ACCESSORIES

## ACCESSORIES - STRUCTURE

| Various | Article No. | Description |
| :--- | :--- | :--- |
|  | Castor for free-standing racks, 1 pc., 50 kg load capacity | Suitable for |

## ACCESSORIES - VENTILATION

| Fan ventilation | Article No. | Description | Suitable for | Colour | PU |
| :--- | :--- | :--- | :--- | :--- | :--- |

## ACCESSORIES. PDU \& LIGHTNING

|  | Article No. | Product |
| :--- | :--- | :--- |
|  |  | Description |

For more information please visit our homepage: www.cabling.datwyler.com


## WIRELESSSOLUIIONS FOR high requirenents

Mobility has become an integral part of modern day-to-day business. Employees, customers and partners take for granted the existence of wireless access points, and what's more, they are dependent on it. The massive increase of smartphones and tablet PCs in the workplace impressively proves this trend. Forward-looking companies have recognised the signs of the times and responded accordingly. Our future-proof high-density access point solutions are ideally suited for professional use in offices, factory buildings, conference halls, schools, hospitals and hotels.

Bandwidth-hungry applications such as IP television (IPTV), Video on Demand and Voice over WiFi in particular benefit from trouble-free operation with superlative "Quality of experience", even when being simultaneously used by a lot of people and over a large coverage area.

## WIFI ARRAYS

Unlike conventional access points, the HD Access Points provide many already integrated devices: from 2 up to 4 radio cells, highly sensitive directional antennas, multi-gigabit switch, controller, firewall, spectrum analyser and threat sensor.
The advantages of this all-in-one architecture are obvious: less arrays, less cables and less switch ports will result in less investment in communications infrastructure - already in the project implementation period.

## Enhance your WiFi performance and network efficiency

Up to $13.88 \mathrm{Gbit} / \mathrm{s}$ bandwidth in the 802.11 $\mathrm{a} / \mathrm{b} / \mathrm{g} / \mathrm{n} / \mathrm{ac}$ (Wave 2) range ensure WiFi coverage of up to 780 users and an area of over $100 \times 100$ metres.



## POWER SUPPLY

There are two ways of supplying power to the HD Access Points: you can use a PoE (Power over Ethernet) adapter or a multi-port PoE switch.


## WiFi bandwidth for the future

The XD4 access point with its 4 radio cells and $4 \times 4$ Wave 2 ( 3.47 Gbps ) 802.11 ac can be used for demanding indoor applications and as a reliable, robust outdoor solution - also as a part of the existing cabling infrastructure.


## Powerful connection

HD Access Points can be connected with fibre optic cables or high-performance copper data cables.

## MANAGEMENT

Xirrus Management System (XMS) provides a platform for the centralized management of HD Access Points. Network administrators use it for efficient and centralized configuration, administration and control of Xirrus WLAN networks.

## Main functions:

- Web-based user interface
- Network discovery
- Configuration management
- Station assurance
- Network assurance
- Intrusion detection
- Real-time monitoring
- Wireless network mapping
- Drill-down reports
- Safety monitoring and management

On-premise installation

or
Cloud based management



## BENEFITS AT A GLANCE

## Less WiFi equipment

- up to 13.88 Gbps bandwidth
- higher range and coverage
- up to 780 users per array
- wireless mesh
- access points can be configured
- integrated Gigabit switch
- integrated WiFi controller


## Security

- intelligence at the interface
- integrated firewall
- integrated WiFi threat sensor


## Professional support

- measurement
- network planning
- checking


## Investment protection

- new standards by means of software updates
- switchable between 2.4 and 5 GHz


## MAINTENANGE CONTRAGTS

Protect your investment with a maintenance contract. This is the way to keep HD Access Points and software up to date at no extra cost.

## Wi Fi)脆

## Upgrade and updates

Hardware upgrades and software updates ensure that your WiFI HD Access Points will always be fully compliant with the latest standards.

## WiFi 6

WiFi 6 (802.11ax) increases the transmission speed, improves the efficiency and minimizes network congestion when using multiple devices.

## Overview of the main advantages:

- up to $25 \%$ higher data throughput due to QAM 1024 modulation
- multi-user MIMO transmits various data streams to several WLAN clients at the same time
- transmission channels of up to 160 MHz for 4 K streaming and VR applications
- OFDMA for bundling of small data packets and optimal utilization of radio cells

WiFi 6 products will soon be available. Please see our website for current product information.

## LONG-TERM SEOURITY

Even the best matched systems can only show their optimal potential when the installation is optimised. With the increased technical demands of class $E_{A^{\prime}}$ class $F$ and class $\mathrm{F}_{\mathrm{A}}$ links, for example, the demands on the installer are constantly growing.

We train network installers in the Datwyler system solutions in order to be able to guarantee an optimal quality of installation. Our seminars provide participants with the knowledge of the right application for products, combinations and dependencies of different parameters in the cabling system, and the resulting high quality of installation in copper and fibre optic networking.

## DATWYLER SYSTEM WARRANTY

Certified installers can offer a Datwyler warranty for the installed copper and fibre optic cabling systems: normally for 25 years, but this can be extended depending on project criteria.

An acceptance test for each link documents that all required electrical or optical values are maintained.

Cabling solutions from Datwyler consistently perform beyond the standards, guaranteeing excess headroom for future application support.



## DATWYLER TRAINING

Nowadays simply selling good products and solutions is no longer enough. A high-tech field like ours needs a great deal of know-how.

In our training courses we pass on to you the knowledge and experience we have gained in international standardisation consortia and in collaboration with research and development partners. You can thus provide your own customers with system solutions of the highest level of expertise. The consistently high standard makes us mutually strong and competitive.


You will find individual course types and dates on our home page via the country selection in the "Training" menu.

# WE REALIZE YOUR PROJECT 

WE SPEAK
You will find us wherever IT infrastructures are involved.

- ALSO FROM A


## CULTURAL POINT OF VIEW

Not only are we fluent speakers of all the major languages, but we're also well versed in the special cultural and application-specific features of each particular country. We are familiar with the rules and requirements and know what is important. This saves our international customers time and money. For they know that Datwyler's development, production and quality control, geared to the specific criteria of the domestic market, give them significant competitive advantages.

And they are sure to feel "at home" if they are then given advice and support in their native language into the bargain.


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[^0]:    The Datwyler Micro Data Centre is a tailor-made and customised solution to fulfil the customers' specific needs and requirements.

[^1]:    * We recommend shielded Cat. 6 patch cords for an unshielded 10G cabling because these patch cords are "slimmer" and more flexible than unshielded patch cords which were optimized for a good Alien Crosstalk (AXT) performance.

[^2]:    ${ }^{1)}$ FR/PVC = Flame Retardant/Polyvinylchloride
    2) ${ }^{\text {2 }}$ FRNC/LSOH = Flame Retardant Non Corrosive/Low Smoke Zero Halogen
    ${ }^{3)}$ other lengths on request, minimum order quantity $=100$ pieces

[^3]:    The fibre designation (OS2) corresponds to the designation of ISO/IEC 11801 or EN 50173. OS2 is commonly referred to as
    "low water peak" single-mode fibre and is characterized by having a low attenuation coefficient in the vicinity of 1383 nm .

[^4]:    * Please find the necessary E30-tested and certified fire safety system components on our website

[^5]:    ${ }^{1)}$ ) These couplers are used with Datwyler FO-DCS subracks 7HP/3U - Article No. 417212.

[^6]:    Patch cords with Duplex connectors on both ends are delivered with a single Duplex clip which is not fixed to enable a change of polarity.

[^7]:    * Set has 12 fibre pigtails in 12 colours (according to IEC 60304)

[^8]:    Cablelo $\mathrm{k}^{\mathrm{m}}$ is a registered trademark of HellermannTyton.

