

Fibre Optics

LAPP fibre optic portfolio for a wide range of industries and applications



Connecting industrial performance to the future

Industrial environments are becoming increasingly data-driven. Automation, monitoring and real-time control systems are expanding, and with them the need for communication networks that deliver maximum speed, reliability and resilience. As Industry 4.0 and Society 5.0 take shape, the volume of data exchanged across machines, sensors and control units continues to grow – and traditional communication technologies reach their limits.

Glass optical fibres (GOF) provide the performance that modern industries depend on: high bitrates, long transmission distances, and complete immunity to electromagnetic interference, while also offering a high degree of cyber security due to the inherent difficulty of tapping optical signals. These advantages make fibre optics an essential building block for stable, high-performance communication networks in demanding industrial conditions. From long production lines to complex automation systems, GOF ensures clean, secure and uninterrupted data flow wherever reliability cannot be compromised.

LAPP develops and manufactures fibre optic solutions specifically for industrial requirements.

Our cables are designed to withstand mechanical stress, environmental influences and dynamic movement – ensuring consistent performance where copper technology reaches its physical boundaries. At the same time, fibre optics enable the high bandwidths needed for Time Sensitive Networking (TSN) and real-time communication in protocols such as PROFINET and EtherCAT.

As a system provider, LAPP offers complete FO solutions from a single source: from cables and connectivity components to assemblies, SFP modules and switches. This enables a seamless transition from copper-based networks to future-proof fibre optic architectures. With globally standardised product quality, technical expertise and decades of experience in industrial communication, LAPP supports customers at every step – from planning and integration to long-term operation.

With fibre optics from LAPP, industrial companies can build communication networks that meet today's demands and grow with tomorrow's challenges – reliable, scalable and ready for the future.

Fibre optics vs. copper – more speed, less loss.



Resistant & compact dimensions
Resistant against electromagnetic interference compact dimensions and low cable weight



Almost infinitely expandable capacities
due to additional wavelengths.



Data cannot be stored temporarily and is therefore **protected against tapping.**



Higher bandwidths and longer distances
through low attenuation.

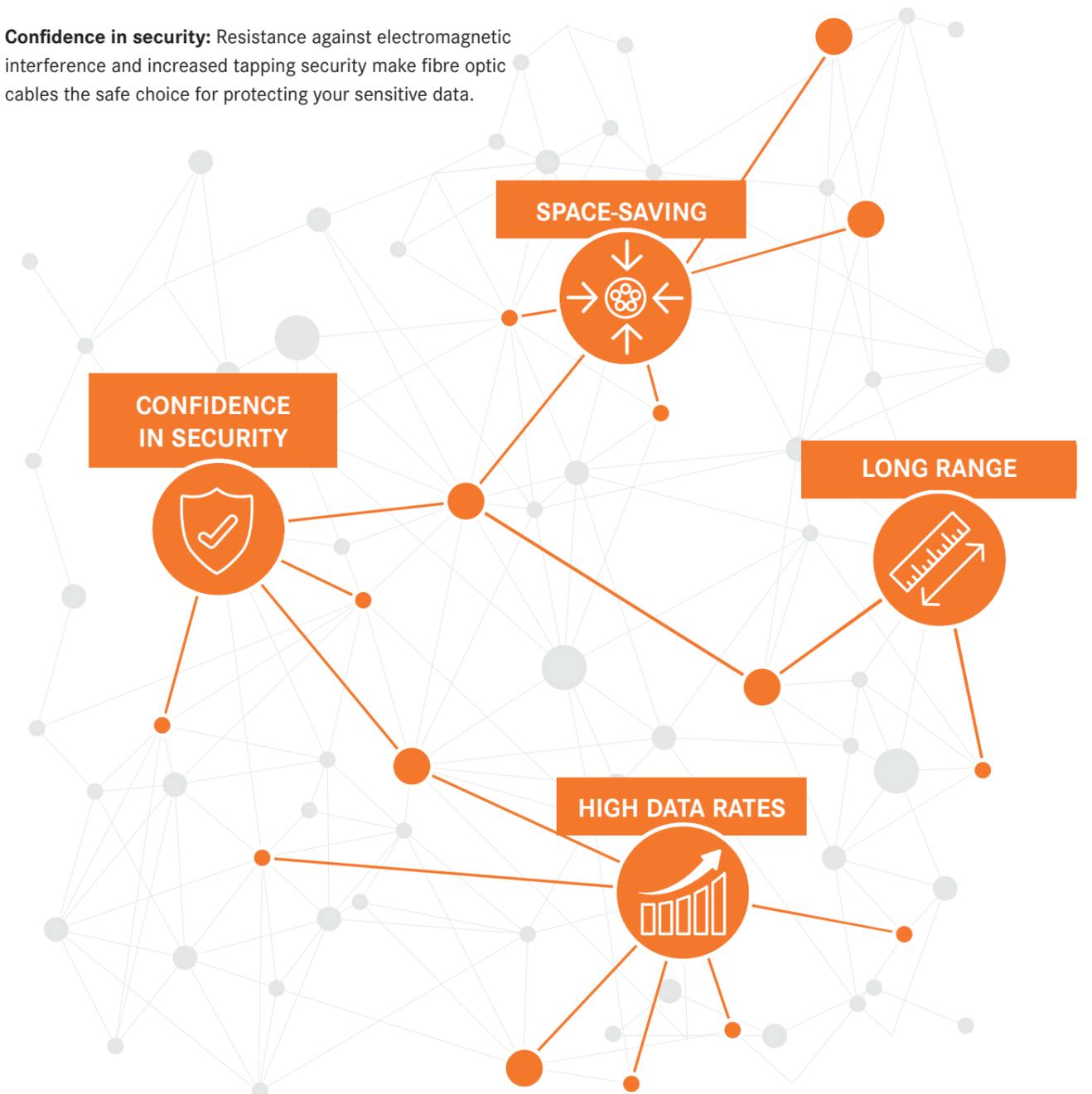
LAPP – your global partner for innovative connectivity solutions

Space-saving: Thanks to the small diameter of fibre optic cables, you save space and have the freedom to optimally design your infrastructure

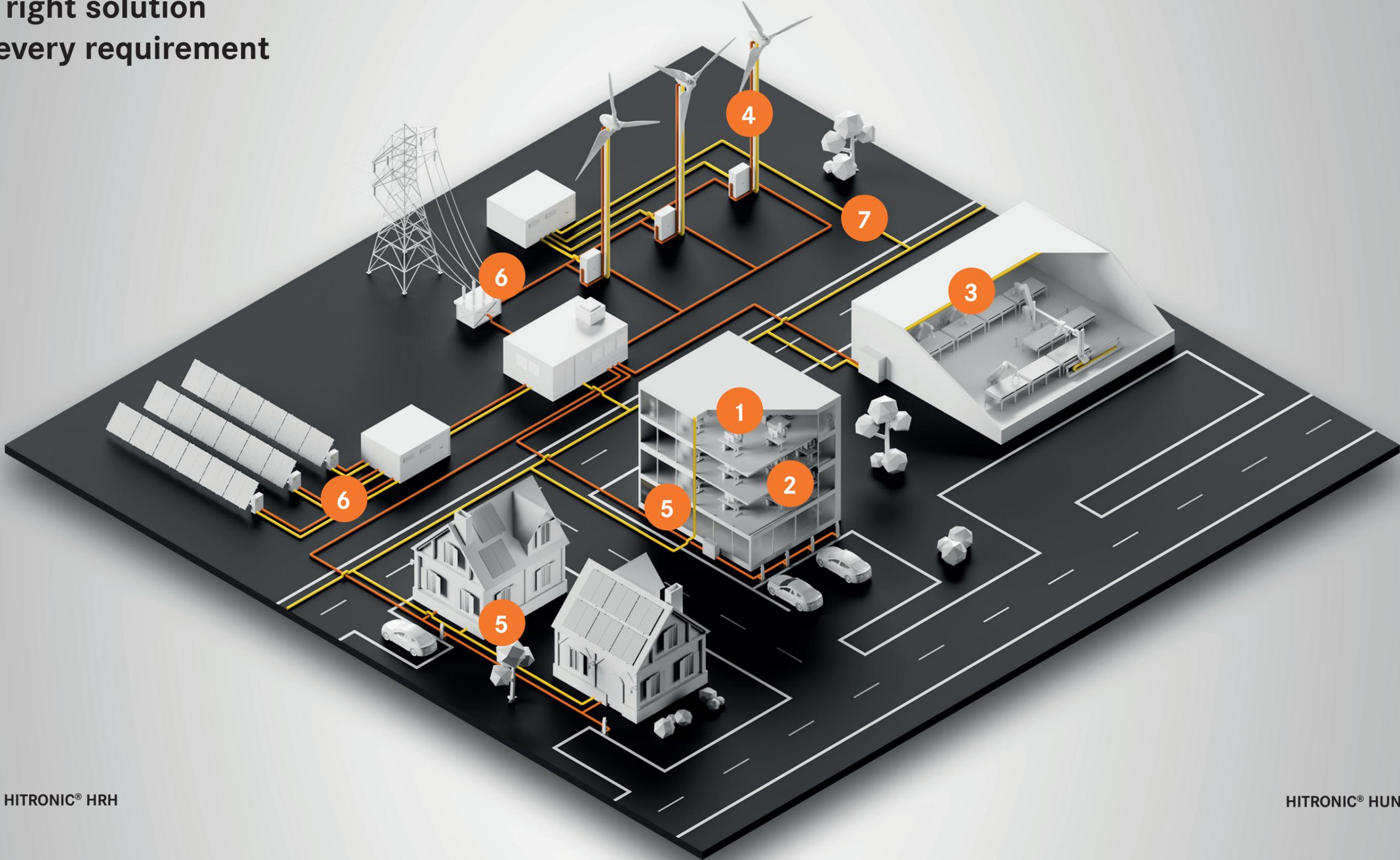
High data rates: With fibre optics you achieve efficient production with fast/synchronous communication at very high data rates.

Long range: Overcome impressive distances between your facilities without sacrificing performance.

Confidence in security: Resistance against electromagnetic interference and increased tapping security make fibre optic cables the safe choice for protecting your sensitive data.



The right solution for every requirement



- 1 HITRONIC® HRH
- 2 HITRONIC® HDH
- 3 HITRONIC® FIRE
- 4 HITRONIC® TORSION

- HITRONIC® HUN 5
- HITRONIC® BxK/BTxK 6
- HITRONIC® HQW 7

HITRONIC® POF-Portfolio

Cables	Fixed Installation	Continuously flexible Application	Connectors and adapters
HITRONIC® POF SIMPLEX PE	✓	-	
HITRONIC® POF DUPLEX PE	✓	-	
HITRONIC® POF SIMPLEX PE-PUR	✓	-	
HITRONIC® POF SIMPLEX PE-PUR	✓	-	
HITRONIC® POF DUPLEX PE-PUR	✓	-	
HITRONIC® POF DUPLEX PE-PUR	✓	-	
HITRONIC® POF DUPLEX HEAVY PE-PUR	✓	-	
HITRONIC® POF DUPLEX Heavy	✓	-	
HITRONIC® POF SIMPLEX FD PE-PUR	-	✓	
HITRONIC® POF SIMPLEX/DUPLEX FD PE-PUR	-	✓	
HITRONIC® POF DUPLEX PNB PA-PUR	✓	-	
HITRONIC® POF DUPLEX for PROFINET Application (Type B)	✓	-	
HITRONIC® PCF DUPLEX FD PNC PVC-PVC	-	✓	
HITRONIC® POF DUPLEX for PROFINET Application (Type C)	-	✓	

HITRONIC® PCF-Portfolio

Cables	Fixed Installation	Continuously flexible Application	Connectors and adapters
HITRONIC® PCF SIMPLEX PUR OUTDOOR 1K 200/230	✓	-	
HITRONIC® PCF SIMPLEX Outdoor	✓	-	
LAPP KABEL STUTTGART HITRONIC® PCF DUPLEX FRNC-PE OUTDOOR	✓	-	
HITRONIC® PCF DUPLEX Outdoor	✓	-	
HITRONIC® PCF FRNC-PUR INDOOR	✓	-	
HITRONIC® PCF DUPLEX Indoor	✓	-	
HITRONIC® PCF DUPLEX FD FRNC-PUR	-	✓	
HITRONIC® PCF DUPLEX FD Universal PCD DUPLEX FD FRNC-PUR	-	✓	
HITRONIC® PCF DUPLEX PNB PVC-PVC	✓	-	
HITRONIC® PCF DUPLEX for PROFINET Application (Type B)	✓	-	
HITRONIC® PCF DUPLEX FD PNC PVC-PVC	-	✓	
HITRONIC® PCF DUPLEX for PROFINET Application (Type C)	-	✓	

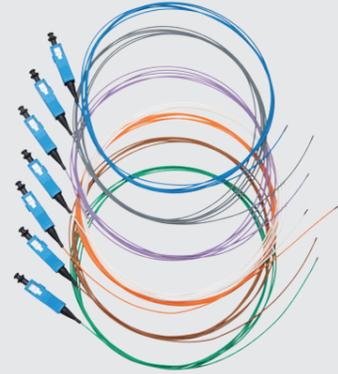
HITRONIC® GOF-Portfolio

Cables	Application area (I=Indoor, O=Outdoor)	Fixed Installation	Continuously flexible Application	Connectors and adapters
HITRONIC® FIRE	O / I	✓	-	
HITRONIC® TORSION	O / I	-	✓	
HITRONIC® HRM-FD Flexible	O / I	-	✓	
HITRONIC® HDM-Reel	O / I	✓	-	
HITRONIC® HQN Outdoor	O	✓	-	
HITRONIC® HVN Stranded Outdoor	O	✓	-	
HITRONIC® HVN-Mini Outdoor	O	✓	-	
HITRONIC® HQW Armoured Outdoor Cable	O	✓	-	
HITRONIC® HWV Stranded Armoured Outdoor Cable	O	✓	-	
HITRONIC® HQW-Plus Armoured Outdoor Cable	O	✓	-	
HITRONIC® HQA Aerial Cable ADSS	O	✓	-	
HITRONIC® HQA-Plus Aerial Cable ADSS	O	✓	-	
HITRONIC® HUN Universal	O / I	✓	-	
HITRONIC® HUW Armoured Universal Cable	O / I	✓	-	
HITRONIC® HRH Breakout	I	✓	-	
HITRONIC® HDH Mini Breakout	I	✓	-	
HITRONIC® GOF DUPLEX for PROFINET Application Type B (*)	I	✓(*)	✓(**)	
HITRONIC® GOF DUPLEX for PROFINET Application Type C (**)	I	✓	-	
HITRONIC® BxK	O	✓	-	
HITRONIC® BTxK	O	✓	-	

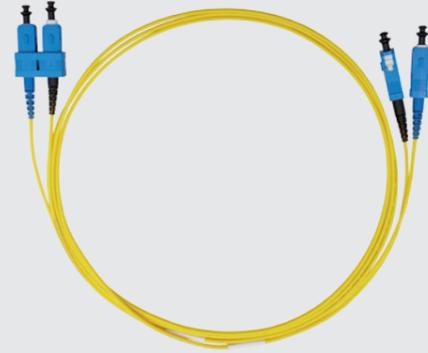
Pre-assembled HITRONIC® fibre optic cables

Standard cable assemblies

Fibre optic cables are available as single or double-sided variants:



Fibre Optic Pigtails



Fibre Optic Patch Cable

Fibre Optic Cable Configurator

A quick, simple and clear path to your assembly



Use our online tool to configure an individually assembled fibre optic cable. Glass fibre installations are becoming increasingly important for handling larger data volumes and the increasing demands on data transmission. With the fibre optic cable (AKA optical fibre) product group, LAPP offers high-quality cable assemblies for this purpose. With our configurator, you can quickly and neatly put together the perfect assembly for your application.



Copper or fibre optic – which cable is right for you?



Find out which technology is best suited to your application in six steps with LAPP – from transmission rate and distance to moving applications.

- Discover practical examples and the advantages and disadvantages of copper and fibre optic cables.
- Receive specific product recommendations for industrial networks.
- Contact us: LAPP experts will help you select the right cables and connectors for your infrastructure.





ÖLFLEX®
Power and control cables



UNITRONIC®
Data communication systems



ETHERLINE®
Data communication systems
for Ethernet technology



HITRONIC®
Optical transmission systems



EPIC®
Industrial connectors



SKINTOP®
Cable glands



SILVYN®
Protective cable conduit systems
and cable carrier systems



FLEXIMARK®
Marking systems

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