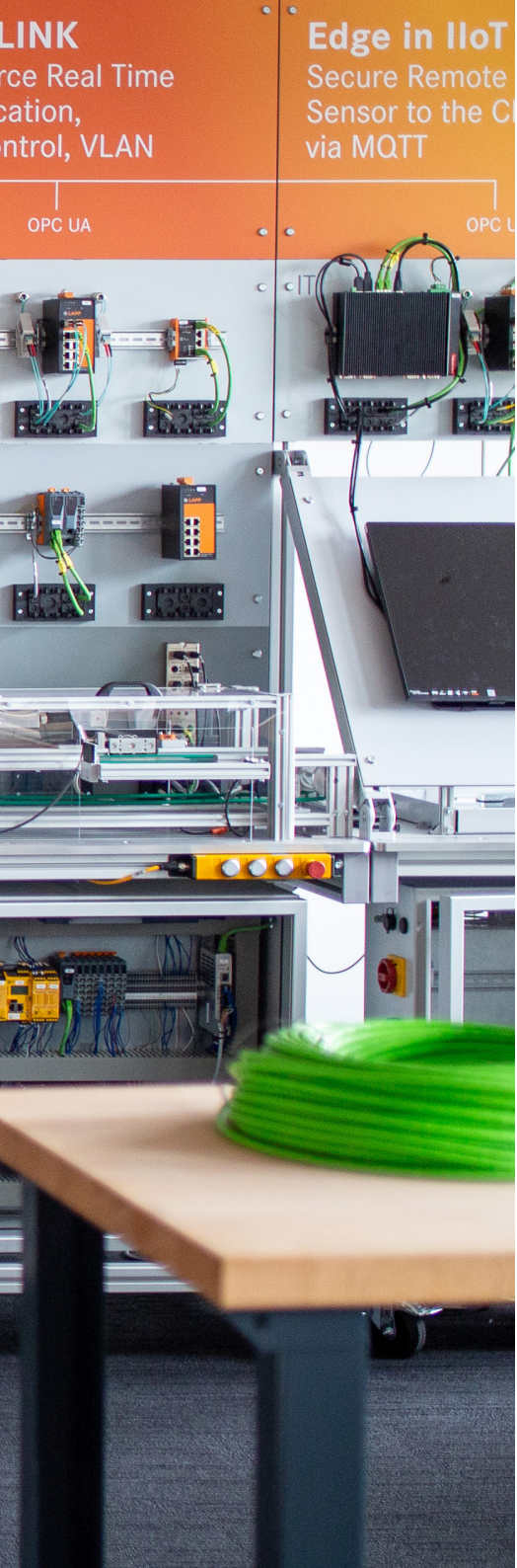
THE LAPP EXPLORATION CENTER



LAPP


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ETHERCAT
Low Latency Line Topology,
IO Link
CC-Link IE
High Speed Communication,
Low Latency, IO Link
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Field I/O
Field I/O



LAPP Exploration Center

Discover our solution competence at the LAPP Exploration Center and benefit from our trainings and service offerings.

Learn how LAPP's connectivity solutions can optimise your industrial communication and create reliable, future-proof networks that boost your productivity and support the transformation to Industry 4.0.

The LAPP Exploration Center is more than just an application centre. In addition to proven industrial communication solutions, you will also find our latest developments and innovations there.

A place where...

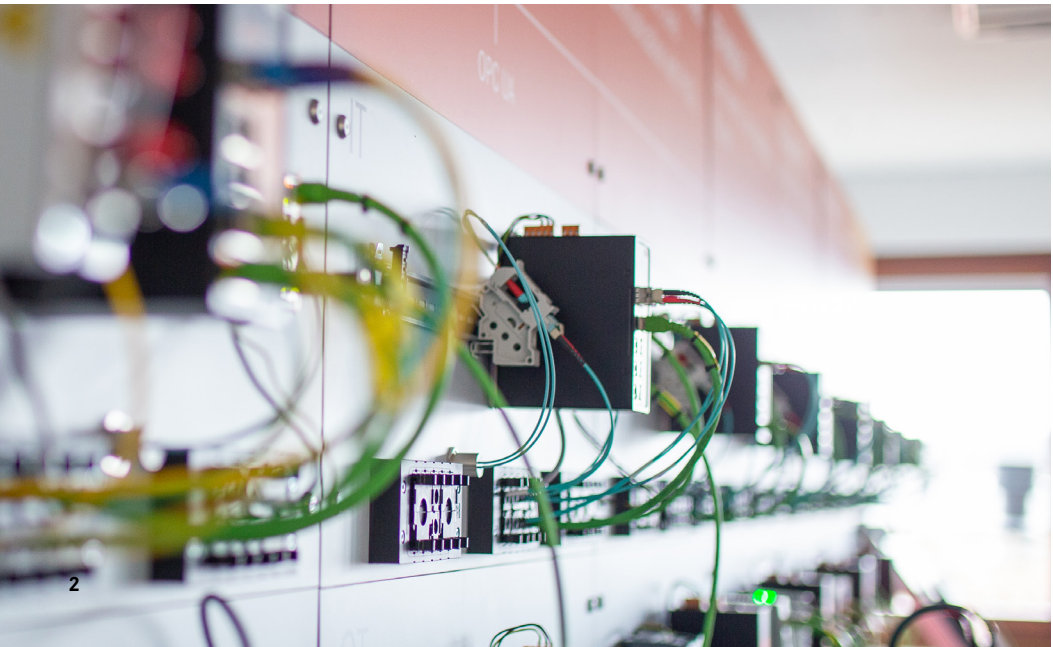
... you can experience solutions and innovations first hand.
... we offer concentrated technical expertise.
... we provide you with an customer experience.

Industrial communication – the automation model

A production line across all levels: Field, OT and IT

This model of a modern smart factory demonstrates data connectivity and the use of our components in a production-like environment. LAPP offers a comprehensive range of products for common protocol standards, including PROFINET, EtherCAT, EtherNet/IP, CC-Link IE, Ethernet POWERLINK or OPC/UA. With the right solutions, companies can achieve high interoperability, maintain data integrity and thus ensure the availability of their production.

Discover the extensive LAPP portfolio: data cables, patch cords, switches and accessories – with us, you get compatible products to operate your system holistic and reliable.





Innovations and technologies from LAPP

Take a look into the future with us

Experience our latest developments, such as the stationary monitoring device for data cables, ETHERLINE® GUARD, the patented zeroCM® technology, which reliably reduces leakage currents and contributes significantly to improved EMC in machines and systems. In addition to new products, we also develop cutting-edge services such as eKanban – for intelligent and networked cable inventory management.

Take advantage of the opportunity to discuss the current challenges in your company with our experts.

Training programmes

Trainings with certified PROFINET experts

The LAPP Exploration Center offers a variety of trainings on different topics. These trainings are specifically tailored to the needs of your industry.

Benefit from the expertise of our officially certified PROFINET experts and enhance your solution skills with our training programmes.

Time frame
1 day
(½ day theory / ½ day practice)

Price
400.00 € plus VAT per person and training (incl. meals)

Target group
Developers, planners, installers and maintenance technicians

Language
All trainings are offered in German or English

Group size
Max. 8 persons

Interested?

Are you interested in a visit? Whether it‘s a full day including a workshop, a specialised training on industrial communication or a training tailored to your individual interests, we’ve got you covered. Just contact us!

exploration.center.global@lapp.com

PROFINET Passive Infrastructure

Get an overview of the entire passive infrastructure for PROFINET. After the workshop, you will be able to select the right components for your application and thus plan a PROFINET-compliant installation. In the practical part, you will learn how to handle PROFINET cables and connectors to carry out a quick and error-free installation.

Required knowledge

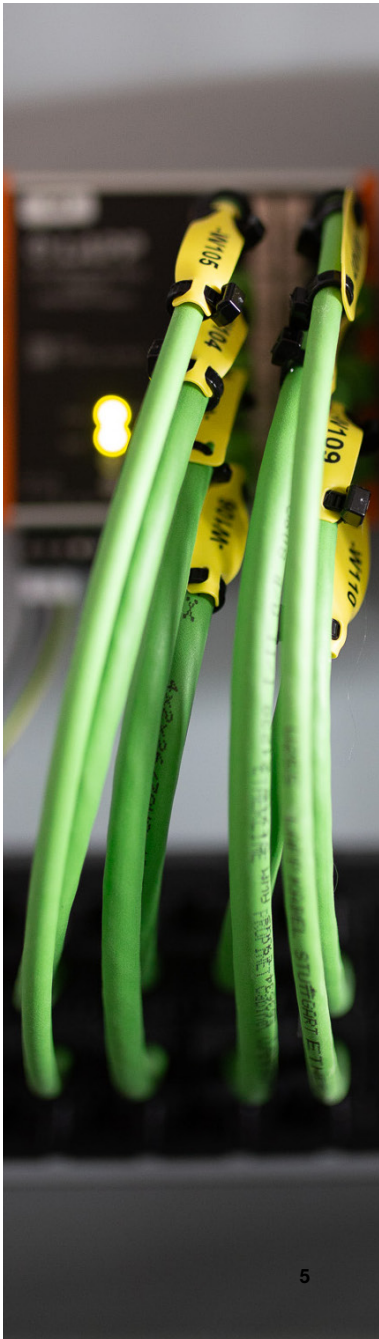
Basic knowledge
in electrical engineering and tool handling skills

Certified by PI PROFIBUS • PROFINET

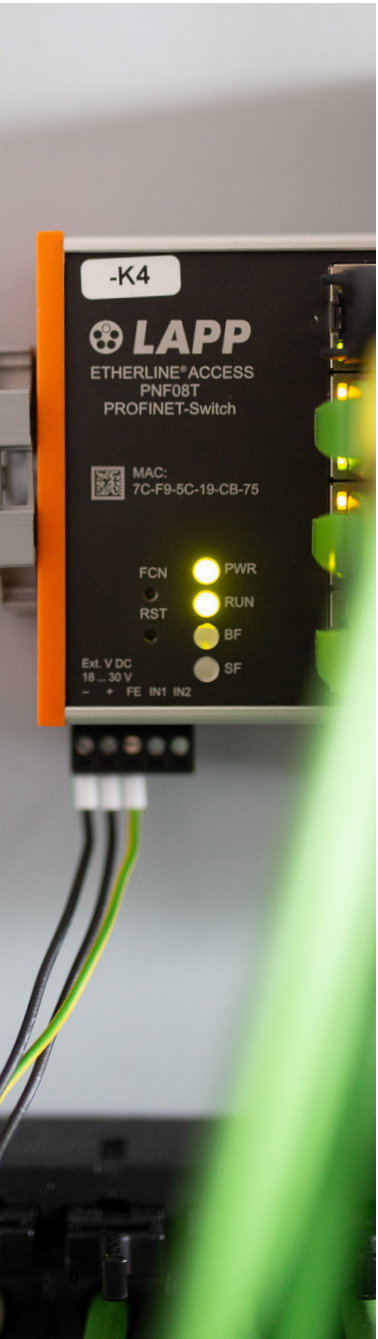
Training content

In this training, participants gain insights into the basics of Ethernet data cables and get an overview of the LAPP ETHERLINE® portfolio for industrial Ethernet bulk cables. The benefits of Ethernet in industrial environments are explained, and we discuss why the number of industrial Ethernet nodes has been rapidly increasing in recent years. Additionally, we cover the common industrial Ethernet protocols, such as PROFINET, and their requirements for data cables. The session is rounded off with an overview of PROFINET connectors and patch cords.

In the practical part, participants will learn how to handle common industrial Ethernet cables and connectors. Under supervision, they will assemble connectors onto cables themselves. This is followed by measuring the Ethernet cable assembly and interpreting the key measurement parameters.



PROFINET Active Infrastructure



Learn about the PROFINET-specific functions of switches to evaluate the benefits of this technology for your application. In the practical part, you will learn how to properly use the PROFINET-specific functions of switches in your setup.

Required knowledge

Basic knowledge
of automation, Ethernet, PLC and PROFINET

Certified by PI PROFIBUS • PROFINET

Training content

This training course covers the basics of PROFINET technology. The content is based on the relevant PROFIBUS International (PI) guidelines. Based on this, the advantages and differences between specific PROFINET switches and conventional switches are explained, as well as the specific functions and PN Conformance Classes.

In the practical part, the default settings of the PN switch CC-B are examined, including the manual assignment of the IP address. Additionally, participants learn how to insert a GSDML file in TIA. Participants will create a topology in the hardware configuration to ensure neighborhood identification for device replacement. Furthermore, the effects of unmanaged switches in PROFINET networks are discussed. Participants will also gain insight into diagnostic options and learn to identify and eliminate common sources of error.

Fibre optic passive infrastructure

As an industrial user, you will become familiar with fibre optic technology and be able to evaluate its advantages over copper cabling for your application.

In the practical part of this training, you will learn how to handle this technology and acquire the skills to connect fibre optic cables yourself. Additionally, you will learn how to select the appropriate connectivity systems for your application.

Required knowledge

Basic knowledge
in electrical engineering and tool handling skills

Training content

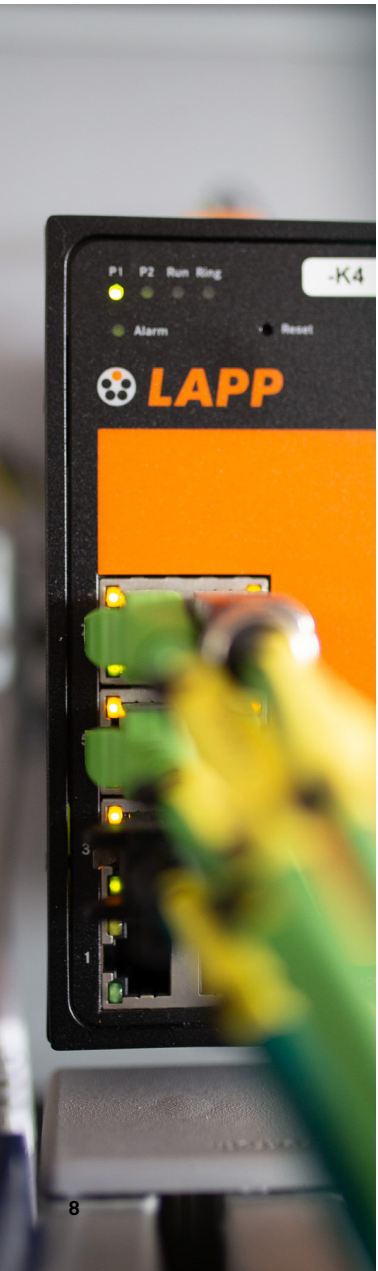
In this training, participants will be introduced to the basics of fibre optic technology. Additionally, the advantages of fibre optics over copper data cables will be discussed, with a particular focus on the use of fibre optics in industrial settings. Various types of fibre optic cables and their connection techniques will be covered.

In the practical part, participants will learn about the connection techniques for fibre optics in a hands-on setting. Under supervision, they will connect connectors to fibre optic cables themselves and receive practical tips on the advantages and disadvantages of each connection technique.

The focus is on industrial applications.



Industrial Ethernet Switches in use



Learn about the advantages of managed switches to effectively and correctly use these features in your application in the future.

In the practical part, you will configure the key management functions of ETHERLINE Access managed switches to be able to apply them purposefully.

Required knowledge

Basic knowledge
Ethernet

Training content

In this training, the key functions of managed switches are introduced, and their practical use in industrial applications is discussed. Additionally, the advantages of managed switches over unmanaged switches are presented.

In the practical part, participants will learn how to activate and configure the most important functions of a managed switch, such as ring redundancy, port mirroring, and SNMP, and understand their impact.

They will also learn how to evaluate important diagnostic information to prevent potential network issues or identify and resolve the root cause of network problems.

Industrial communication at field level

Learn about the benefits and functions of remote I/Os and, after the training, be able to correctly use these functions in your application. Additionally, you will be able to integrate sensors, understand the configuration of a remote I/O (including hub), connect remote I/Os to control platforms such as TIA, and apply them purposefully.

Required knowledge

Basic knowledge
Sensor technology

Training content

In this training, the communication within sensor networks is introduced, covering various types of sensors and communication methods (IO-Link, Ethernet/IP, OPC/UA, etc.), and their practical use in industrial settings is discussed. Additionally, the advantages of remote I/Os and hubs are presented.

Participants will learn how to activate and configure the key functions of a remote I/O and understand their impact.
They will also learn how to evaluate important diagnostic information to avoid potential network issues or identify and resolve the root cause of network problems.





Service offerings

Developing customised solutions for your industrial networks

Are you unsure how to implement the solution for your industrial communication application?

Would you like to conduct a proof of concept for the individual industrial communication solution developed with LAPP experts?

Do you want to know if the components you use for industrial communication will work seamlessly with the related LAPP products?

These and other services are available in our LAPP Exploration Center.

Our team will gladly assist you!

Our team is happy to advise you on the service offerings at the LAPP Exploration Center. Contact us: **exploration.center.global@lapp.com**







Requirements Workshop

Receive support from our certified PROFINET experts at LAPP for the targeted joint development of a solution. This saves you time in engineering and your own resources, as our LAPP experts will be at your side.

Proof of Concept Service

The Proof of Concept Service provides you with the assurance that the jointly outlined solution concept will work in practice. This saves engineering time and reduces the risk of project delays during system integration. We are also happy to review and validate your self-defined concept.

Interoperability Testing Service

The Interoperability Test Service ensures that LAPP products for industrial communication will work seamlessly in your application. You can utilize our test environment at the LAPP Exploration Center together with our experts. This saves you the effort of conducting your own tests, saves time, and provides assurance that the solution will work.

Offers

Discover our new LAPP Exploration Center in Stuttgart

At the LAPP Exploration Center, we offer you extensive opportunities to get to know LAPP as the specialist in connectivity solutions. We are happy to organise an individual visit in Stuttgart or create a training programme for you.

More Information:
https://www.lapp.com/en/de/service/lapp-exploration-center/e/088901

Contact us!

Please feel free to email us **exploration.center.global@lapp.com**
Alternatively, please contact your customer service representative.







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