

The best connection in plant engineering

Industrial Projects



The Quality Connection

LEONI

The optimum solution for any plant.

LEONI Business Unit Industrial Projects –
your expert for a market that requires maximum reliability.

LEONI is one of the leading suppliers of standardised and customer-specific special cables and pre-assembled cable systems worldwide.

The Business Unit Industrial Projects allows us to give our customers access to the entire competence of a worldwide corporation, focused to meet the needs of industrial applications. We supply our products and solutions wherever everything depends on maximum reliability, quality and durability, such as in oil and gas extraction and processing as well as in the petrochemical and energy production industries. LEONI products are to be found in many other applications such as the pulp and paper, cement and pharmaceutical industries and in waste management, in which processes have to run in a controlled way via sensors and actuators.

For us reliability does not just mean keeping the right product available for you as a standard product or developing a project solution for you – it also means supplying it at precisely the agreed time.

Safety, availability and reliability are vital in industrial plant engineering and energy provision. This is because these are fields in which unexpected breakdowns are very expensive and have critical effects on the environment.

Companies are asking for solutions which are perfectly tailored to meet the application in question as well as the plant itself. 70 % of the cables leaving our company are developed, manufactured and assembled according to customer specifications. We produce quantities depending on the requirements of the projects and supply according to cable drumming schedules. We are also equipped to provide project quantities in a considerable two-digit million euro range. We take company-specific standards as well as all important industrial and environmental standards on the national and international level into account.

Two thirds of our products are manufactured according to customer specifications. We have more than 40,000 cable designs at our disposal. This enormous pool is an effective demonstration of what we from the Business Unit Industrial Projects mean by "individual customer service": first come the customers and then the cable and not vice versa.

The positive feedback which we repeatedly get from our well-known customers worldwide after successful completion of a project proves to us time and time again that this is the ideal approach for project business – and has been for more than 30 years now.

**70 % of our cables are
manufactured according to
customer specifications.**



We are your partner wherever you need us.

Our spheres of competence:



- Oil and gas industry (onshore/offshore)
- Petrochemical industry
- Chemical industry
- Iron and steel industry
- Pulp and paper industry
- Power station construction
- Pharmaceutical industry
- Food and drink industry
- Water/waste water industry
- Waste incineration
- Cement industry
- Mining
- Industrial plants of all shapes and sizes

Our applications involve measurement and control. Whether you need to connect sensors and actuators to the process control level, transmit images for safety or security purposes or supply a refinery with energy in a safe and reliable way: each of our special cables is as individual as the plant it is connected to.

As individual as LEONI Kerpen products are, they are of course all based on standards. The main standards used today are EN, UL and IEC. In 1990, we were one of the first cable suppliers to be given quality management certification according to DIN EN ISO 9001. Since 1998, we have been one of the first cable manufacturers allowed to advertise using the environmental standard ISO 14001. Four years later again, we became qualified for the process-oriented standard DIN ISO-9001:2000.

In addition, we were – and are still today – pioneers in the realisation of the first European standard for instrumentation and control cables: EN 50288-7. Today this standard applies bindingly for all 28 countries belonging to CENELEC. In other countries outside of Europe, too, this new standard EN 50288-7 is coming into force as a replacement for many customer specifications, which were up to now based on the withdrawn standard BS 5308.

In the future, we want to continue satisfying our customers with ideas and solutions which considerably exceed the requirements of the standard, whether it be in engineering, manufacture or logistics. This is the yardstick of the products and services we provide.

You want a plant that can run non-stop for 24 hours a day.

You want cable solutions and systems which combine functionality and availability.

Whether it's refineries, steelworks, power stations, mining, or the pulp and paper industry, chemical factories or petrochemical plants we are talking about: if you want to assume responsibility in these sectors, you have to be able to rely completely on your materials and products.

As a leading company in the cable industry, we have been dealing with the properties of cables and the materials with which they are manufactured for more than 85 years now. The important thing is not just to comply with the various different electrical, thermal, mechanical and safety-relevant requirements worldwide, but also to develop solutions which can function as a model – in terms of economic efficiency as well as safety of use, and of course also with regard to environmentally sound operation.

Today we do not only produce zero halogen cables which are oil- and UV-resistant, resistant to chemicals and highly flame-retardant. We also offer our customers special cables which can resist termites, rodents, arctic conditions and even slight earthquakes. We develop products which can be laid safely in permafrost soil at $-30\text{ }^{\circ}\text{C}$ without pre-warming in an oilfield in Alaska or Siberia or cables which can stand up to extreme heat and drought in the Gulf region.

The foundation for this excellent know-how with regard to the products and their uses is laid in our company's own processing plant for special soft PVC mixtures. This is where our engineers develop special compounds. We have at our disposal more than 100 different formulations for a wide variety of applications – for example highly heat-resistant PVC for cladding and insulation which can also be used safely at $105\text{ }^{\circ}\text{C}$. For high-temperature applications, there are fluoropolymers which can also be used up to a temperature of $250\text{ }^{\circ}\text{C}$. XLPE, PA, silicone, steel wire armour, corrugated steel sheaths, lead sheaths as well as ALNYC sheaths (as a modern protection against chemicals) are also subjected to numerous material and endurance tests in our test fields before they are allowed to become part of a LEONI cable.



We have been optimising materials and cables for more than 85 years.

Service / project handling / technical documentation

Cables get industrial plants up and running.
Our products ensure that things stay that way.



For many suppliers, service only starts when there is a problem with a cable during operation or if servicing is due. For LEONI Kerpen, service begins with the first telephone call and extends from the entire project supervision (including online data management) to the technical documentation.

For us, every project starts with a dialog. This is because solutions which are perfectly suited to the architecture of your plant and the applications you run on it can only be developed on the basis of well-founded and personal counselling.

We do not only manufacture these customer-specific solutions for you – we also document the promised characteristics in the form of comprehensive data specifications. For our customers, this documentation means the certainty that these properties are actually realised in practice. They are also a valuable reference work for the rare cases in which a cable has to be replaced unexpectedly.

Even in such cases, however, everything goes according to plan in the Business Unit Industrial Projects – no matter where it is in the world. This is made possible by a unique network of sales offices and agencies which covers a total of 49 countries of the world and is perfectly coordinated – from Chile to Japan and from South Africa to Scandinavia.

In many of these countries, we or our sales partners keep warehouses for standard and custom products. In other words, the best possible conditions for reacting quickly, efficiently and with a high degree of availability to the wishes you have during your day-to-day business.



All our products have maximum quality in common.

Every cable is a promise.
We always keep our promises.

Our solutions for industrial projects fulfil a wide variety of functions: measurement, control, monitoring, energy provision or structured data transmission. All of our cables have the optimum design for the required application. Quality, reliability and longevity give you security for many years – just the kind of top quality you've come to expect from LEONI.

- **ICON[®] instrumentation and control cables**
- **ICON[®] thermocouple extension and compensation cables**
- **ICON[®] bus cables**
- **Low- and medium-voltage cables**
- **Fibre optic cables**
- **Systems with fibre optic cables**
- **Copper data cables**
- **Systems with copper data cables**
- **PROFINET and Industrial Ethernet cables**
- **Telephone cables**
- **High-temperature cables**
- **Hybrid cables**
- **Cables for offshore industries**
- **Cables for mining**
- **Customer-specific developments**

... with a wide variety of characteristics

- armoured
- flame-retardant with circuit integrity
- zero halogen flame-retardant (LSZH)
- heat-resistant
- cold-resistant
- longitudinally watertight
- with EMC protection
- with rodent and termite protection
- oil- and chemical-resistant
- suitable for drag chains
- perspiration-proof
- radiation-proof
- UV-resistant
- for high impact stress
- suitable for direct underground installation

Under the name ICON, we have integrated our cable products for measurement, control and monitoring applications in the fields of oil, gas, petrochemistry and other industries. ICON includes instrumentation cables, thermocouple extension and compensation cables, control, bus and data cables (copper and fibre optic) according to the EN 50288-7 standard as well as UL standards. The entire range is based on these internationally recognised standards. This applies for standard as well as custom solutions.

Quality, reliability and longevity are the characteristics of our cables.



LEONI – The Quality Connection.

Our Industrial Projects business is part of the worldwide LEONI Group. LEONI is a global supplier of cable systems for applications in the automotive sector and further industries. As a global player with about 45,000 employees in 34 countries, the group achieves first-class results on the basis of solid financial management, offering quality on the highest technical level imaginable in all areas. We put our motto "The Quality Connection" into practice by always developing the optimum solution for our customers and committing ourselves to providing the best possible service in every project and in every detail. We supply numerous market leaders in their respective areas with our products and solutions.

Successful in a wide variety of markets

Besides products for the automobile and commercial vehicle industry, the comprehensive LEONI range includes copper wires and strands, highly flexible copper cables, data cables, insulated power lines, instrumentation cables, bus cables, control cables, mains connection and special cables according to customer specifications. They are purchased by companies from the capital goods, communications and electrical industries.

World market leader and leading system supplier

LEONI is very well positioned for wires and cables. We are the world market leader supplying automotive cables. Our wire products make us a leading system supplier for the special cable and component industry. In the manufacture of thin copper wires, the group occupies the second place worldwide. The particular strength of LEONI in the cable business is the ability to manufacture standardised cables as well as custom cables and pre-assembled systems. We work with various different technologies and our customers use them in a wide range of processes. Why not make use of these synergies – unique in the sector – as well as the great potential present within the LEONI Group?



LEONI Kerpen GmbH
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Zweifaller Str. 275–287
52224 Stolberg
Germany
Phone +49 (0)2402-17-307
Fax +49 (0)2402-17-7 55 90
E-mail industrial@leoni-kerpen.com
www.leoni-industrial-projects.com