

# PRODUCT RANGE

Partnership for better results





### LAPP AUTOMAATIO OY

Lapp Automaatio is Finland's leading expert in providing automation and electrical components for the mechanical engineering and process industries. The suppliers we represent are carefully selected from the best in their field. And the chief criteria demanded of their products are uncompromising quality and cost-effectiveness.

Our experts support customers in their search for the right products. We always react promptly and smartly. For our customers, this means a cost-effective and risk-free partnership. We also manufacture some components in-house – such as temperature sensors, for example.

Our extensive range of products and services includes

- Cables and single cores
- Connectors and cabling accessories
- Temperature measurement and instrumentation
- Automation sensors
- Signal technology products
- Enclosures and switchgear components
- Control devices and systems
- Machine safety products
- Cable measurement, marking and packaging
- Enclosure machining
- Electrical maintenance and calibration services
- Warehouse services

### OUR COMPONENT SUPPLIERS

Anamet Europe, BOPLA, Canalplast, Corex, ENCO, Fandis, Fleximark, Haake, Hetricon, Italsensor, LAPP, Leuze, Lippmann, MENNEKES, Novotechnik, ABB PMA, Optris, PR electronics, Pulsotronic, Rauscher & Stoecklin, Salcavi, Selectron, SIKO, Spohn+Burkhardt, WERMA.

### LAPP GROUP

LAPP Group is a German family-owned company - one of the world's leading suppliers of cables, cable accessories and cable systems. The company was founded in 1957 by Oskar Lapp with ÖLFLEX® - the first industrially produced signal cable in the world.

LAPP is the world market leader, supplying everything from cable, connectors and accessories to fully integrated connection solutions. LAPP products are used in production machinery, industrial robots, public transport, food processing, alternative energy, charging systems for electric vehicles, oil drilling platforms and much more.

Today, in addition to the ÖLFLEX® products, LAPP's range includes UNITRONIC®, ETHERLINE®, HITRONIC®, SKINTOP®, EPIC®, FLEXIMARK® and SILVYN® products for various industries and markets. The product range includes more than 40,000 products, which are mainly manufactured in the company's own production facilities.

## SERVICES

### CABLE MEASURING, MARKING AND PACKAGING

We measure, cut and pack cables according to our customers' wishes. The first measurement and cutting of cables is always free-of-charge, starting from one meter. The first measurement and disconnection of cables is always free from one meter. Wires and cables can also be ordered pre-marked according to needs.

### ELECTRICAL MAINTENANCE

We take care of equipment settings and maintenance on behalf of customers. Electrical maintenance is offered when you need expert help in adapting products for different applications. It can involve actual installation or programming work, or related technical maintenance advice. Our electrical service is a manufacturer-authorized Hetronic service point, which in addition to servicing and modifying radio control systems, also handles Hetronic spare part sales.

### CALIBRATION

We offer factory calibration as part of our temperature sensor manufacturing operation. Calibration is used to determine the error displayed by the temperature sensor at different points in the measuring range, by comparing the reading from the sensor to be calibrated with that of another reference sensor of known accuracy. If the factory calibration does not provide sufficient evidence of a deviation from the measured value, we will deliver the sensors (and transmitters) on behalf of the customer to an accredited laboratory, for calibration.

### ENCLOSURE MACHINING

The enclosure machining service offers customers a modern manufacturing unit and long-term machining experience at competitive prices. All openings and assemblies are made according to customer-specified dimensions, and our expert designers are always at your disposal. The service also includes final inspection, product documentation and logistics.

### WAREHOUSE SERVICES

Our large central warehouse in Hyvinkää serves our customers with over 6500 warehoused items which are all ready for fast delivery. Our warehouse services also include customized warehousing, standard weekly freight, and customer-specific product labeling.

### DESIGNER TOOLBOX

Our website has a product selection tool, enhanced by calculation programs and 2D/3D libraries provided by our suppliers, that will help you design and select products with greater ease and efficiency.

### EXTENSIVE PARTNER NETWORK

Our extensive partner network serves customers everywhere in Finland. Lapp Automaatio's authorized regional partners will support you in choosing products. In addition, our products are available nationwide through wholesalers. You will find all contact information on our website.



## CABLES AND SINGLE CORES



### EVERYTHING ABOUT CABLES

Based on our more than 50 years of experience, we have selected the best suppliers for everything related to cabling and electrification. You can get a wide range of products quickly from our large warehouse. With our measurement and cutting service, you can order just the right number of products. Our experts will help you choose the best solution.

### DATA TRANSMISSION CABLES

- Sensor and actuator cables
- Data transmission cables for power chains
- Halogen-free data transmission cables
- Fieldbus cables
- Data cables for flexible applications
- Coaxial cables
- Cold-resistant data transmission cables
- Encoder cables
- PVC signal cables
- Data transmission spiral cables
- Robust cables with TPE sheath
- UL/CSA data transmission cables
- Cables for Ex-i circuits, data transmission

### SINGLE CORES

- Halogen-free wires
- Multinorm wires
- PVC wires
- Double insulated wires
- FEP/PTFE wires
- Marine wires
- Silicone wires
- XLPE wires

### CONTROL AND POWER SUPPLY CABLES

- Vehicle wires and cables
- Control cables for power chains
- Halogen-free cables
- Cables for flexible applications
- Cold-resistant cables
- PUR sheathed cables
- PVC sheathed cables
- Servo cables
- Spiral cables
- TPE sheathed cables
- UL/CSA certified cables
- Cables for Ex-i circuits, connection and control

### ENERGY CHAIN CABLES

- Control cables for power chains
- Data transmission cables for power chains

### PATCH CABLES

- Ethernet patch cables
- Servo patch cables
- Signal patch cables
- Fiber optic patch cables

### CONVEYOR TECHNOLOGY CABLES

- Flat cables
- Spiral cables

### FIBRE OPTIC CABLES

- Optical fibers and optical cables

### HEAT RESISTANT CABLES

- Polyolefin cables
- Compensation and extension cables for thermocouples

### TRAIN AND VEHICLE CABLES

- Vehicle wires and cables
- ÖLFLEX® TRAIN cables

### MARINE AND OFFSHORE CABLES

- Marine medium voltage cables
- Marine low voltage cables
- Marine data cables
- Offshore cables
- Marine and offshore special cables

### ACCESSORIES

- Cable drum cardboard box
- Cable spooling pallet
- Cable measuring device
- Lamiflex casing

## CONNECTORS AND CABLE ACCESSORIES



### AN EXTENSIVE PRODUCT RANGE

In addition to cables, our extensive product range of essential accessories for cabling, makes purchasing easy and allows customers to centralize their sourcing with a single partner. We represent the best manufacturers in the industry, whose product quality has been tested in demanding conditions around the world.

### DATA CABLES FOR ETHERNET NETWORKS

- Ethernet network cables
- Ethernet patch cables
- Ethernet LAN cables
- Profinet cables

### NETWORK AND BUS CONNECTORS

- CAN connectors
- CAN/DeviceNet M12 connections
- Ethernet connectors
- Ethernet M12 connections
- Profibus optical link module
- Profibus connectors
- Profibus repeater
- Profibus M12 connections
- Bus connectors

### INDUSTRIAL ETHERNET SWITCHES

- Unmanaged switches
- Managed switches
- Profinet switches
- NAT switches

### INDUSTRIAL CONNECTORS

- Industrial connectors
- Circular connectors
- Modular connectors
- POWERLOCK connectors
- Solar power connectors

### SENSOR TERMINALS

- M8 and M12 connectors
- M12 connectors for food industry
- Circular connectors
- M8 and M12 connection units

### CABLE GLANDS

- Plastic cable glands, with and without thread
- Metal cable glands
- Pressure, heat and cold resistant cable glands
- Marine and offshore cable glands
- EMC cable glands
- Cable gland accessories
- Cable glands and accessories, ATEX
- Cable glands for flat cables
- Flange bushing
- SKINTOP® MULTI membrane bushing
- SKINTOP® SOLAR cable glands

### CABLE ACCESSORIES

- Cable and wire marking
- Printers and software
- Wire ducts

### PROTECTIVE HOSES

- Polyamide protective hoses
- Metal protective hoses
- Plastic protective conduits
- Protective hoses, fire protection
- Protective hoses, stainless steel
- Protective braids

### CEE PLUGS AND SOCKETS

- Standard plugs
- Switched receptacles
- Switched receptacles, Ex zone 22
- Standard sockets
- Inlets
- DIN rail service sockets
- Receptacle combinations
- Combination units, mobile and fixed
- High current industrial plugs and sockets
- EPIC® POWERLOCK connectors

## TEMPERATURE MEASUREMENT AND INSTRUMENTATION



### ACCURATE TEMPERATURE MEASUREMENT

Contact us when you need the best and highest quality products for temperature measurement. Add converters and transmitters to the package, and of course our range of high-quality display devices for different process messages.

### TEMPERATURE SENSORS

- Temperature sensors
- Compensating cables
- Ex temperature sensors

### NON-CONTACT TEMPERATURE MEASUREMENT

- Portable infrared measuring devices
- Stationary infrared measuring devices
- Infrared cameras

### DISPLAY UNITS

- Displays for absolute and pulse messages
- Displays with pulse and frequency inputs
- Displays for process message and temperature sensors
- Ex displays

### SIGNAL CONVERTERS AND TRANSMITTERS

- Galvanic isolators and signal converters
- Voltage and power supply units
- Calculator units and controllers
- Temperature transmitters
- Trip amplifiers
- Frequency and pulse converters
- Communication devices and software
- Active barriers and Ex-isolators
- Ex-transmitters

## AUTOMATION SENSORS



### PROVEN SAFETY

We offer machine and equipment manufacturers, the sensing and safety components needed for fixed and moving objects. In terms of their technical quality and innovation, the optical sensors represent the top in their field. The safety components have been tested in harsh conditions and meet the standards set for personal protection and, if needed, the ATEX requirements.

### POSITION INDICATORS

- Position sensors
- Inclinometers
- Linear and angle sensors
- Magnetic linear and angular sensors
- Optical distance measurement
- Absolute encoders
- Incremental encoders
- Ultrasonic sensors
- Wire actuated encoders
- Barcode tracking
- Positioning displays
- Actuators

### WIRELESS DATA TRANSMISSION

- Optical data transmission
- Remote monitoring

### LASER SCANNERS

- For track authentication
- For profile measurement
- For barcode tape

### PROXIMITY SWITCHES

- Inductive sensors
- Capacitive sensors
- Ultrasonic sensors

### DETECTION SYSTEMS

- Machine vision cameras
- RFID detection systems
- Barcode readers
- RFID detection system for Ex zones

### PHOTOCELLS AND LIGHT CURTAINS

- Photoelectric sensors
- Light curtains
- Forked photoelectric sensors
- Smart cameras
- Contrast sensors
- Optical distance sensor
- Optical data transmission
- Photoelectric sensors for Ex zones

### BARCODE READERS

- 2D code readers
- Barcode readers

## ALARM AND SIGNALING EQUIPMENT



### SAFETY AND EFFICIENCY

Alarm devices make the working environment safer, and processes more efficient. Light towers, and light & sound alarms are used to warn, guide, and protect personnel. The product range covers all the various features that comprise an industrial complex – from machines to assembly points, and from production lines to complete buildings.

### OPTICAL ALARM DEVICES

- Beacons
- Signal towers
- Obstruction lights
- Traffic lights

### AUDIBLE ALARM DEVICES

- Multi-tone sirens
- MP3 audio alarms
- Beacon sound elements
- Single-tone sirens

### COMBINATION ALARM DEVICES

- Optical-audible alarm systems

### WIRELESS ALARM DEVICES

- Andon products for Lean production
- Wireless solutions

## MACHINE SAFETY



### PERSONAL PROTECTION COMES FIRST

Making machines and production lines safe means protecting people. No matter whether you have a plant that requires safety upgrade, or a project that still lacks basic electrification components, we have a solution for every need. All of our optical safety sensors meet the latest applicable laws, standards and requirements.

### OPTICAL SAFETY SENSORS

- Multiple light beam safety devices
- Passivation packages for light beam safety devices
- Single light beam safety devices
- Laser scanners for person protection
- Safety light curtain, types 2 and 4
- Safety photocells for Ex zones
- Safety light curtains for Ex zones
- Light curtains for Ex zones

### SAFETY SWITCHES AND SAFETY LOCKS

- Emergency stop rope and safety switches
- Safety interlocks
- RFID safety transponders
- Non-contact safety switches
- Valve interlocks

### SAFETY RELAYS AND SWITCHING UNITS

- Safety relays
- Programmable safety controls

### SAFETY EDGES, BUMPERS AND MATS

- Safety mats
- Safety edges and bumpers

## ENCLOSURES AND SWITCHGEAR COMPONENTS



### TOP COMPONENTS FOR MECHANICAL ENGINEERING AND ELECTRICAL CABINET MANUFACTURING

Protect high-quality assemblies from damage by using top-quality enclosures. In our range, you will find protective enclosures for any need – whether it concerns security and information technology, telecommunications, the automotive industry, pharmaceuticals, etc. We can also supply the most important protective electrical cabinet components, such as terminal boxes, junction boxes and miniature enclosures.

#### COMPONENT AND CIRCUIT BOARD ENCLOSURES

- Aluminum profile enclosures
- Electronics enclosures
- Handheld enclosures
- Industrial enclosures
- Measuring, control and DIN-rail enclosures
- Display enclosures and integrated display enclosures
- Membrane keyboards and integrated keyboard enclosures
- Customisation services

#### FLEXIBLE POWER CONNECTIONS

- Power and grounding connections

#### CABINETS AND WALL ENCLOSURES

- Floor enclosures
- Wall enclosures, rubber
- Wall enclosures, steel
- Power distribution centers
- Ethernet sockets

#### RELAYS AND TRANSFORMERS

- Trip amplifiers
- Time relays
- Safety relays
- Monitoring relays
- Printed circuit-board transformers

#### ACCESSORIES AND OTHER COMPONENTS

- Plastic cable glands
- Accessories for cable glands
- Multi cable bushing
- DIN rail service sockets
- Mounting rails
- Hinged windows
- Thermal control
- Labelling accessories
- Terminal block combinations
- Wire ducts
- Pressure compensation glands
- Cable bushing
- Protection brades
- Lighting

## CONTROL DEVICES AND SYSTEMS



### VERSATILE CONTROL SOLUTIONS

Wireless and lightweight radio controls allow the user to move freely to the best control position. Moreover, the difference in acquisition and installation costs compared to traditional wired remote control is minimal. The product range covers all basic models and also versions customized for your particular needs.

### RADIO CONTROL

- Button controls
- Joystick controls
- Proportional controls
- Switch controls
- Customized controls
- Receivers
- Radio-control equipment for Ex zones

### ELECTROMECHANICAL CONTROL DEVICES

- Controllers
- Handles
- Control stations
- Foot pedals
- Portable and pendant control stations
- Controllers for Ex zones

Follow Lapp Automaatio!



**Lapp Automaatio Oy**  
Martinkyläntie 52  
FI-01721 Vantaa, Finland

[lappautomaatio.com](http://lappautomaatio.com)

