

ÖLFLEX®

**INNOVATIVE
TO THE CORE**

The new ÖLFLEX®

 **LAPP GROUP**
www.lappgroup.com

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BECAUSE WE LIKE TO MAKE CONNECTIONS

Lapp – customer focus is our key to success

A good half a century on from Lapp's founding, buyers all over the world associate the company's name with innovation, safety and reliability. Brand quality down to the last detail and a wide range of products are what make us stand out from the crowd. We are proud of the fact that we are able to provide the perfect solutions for a large number of challenges in the field of cable and connection technology.

Thanks to the trust that our customers place in our products – which often stretches back many years – and the success that comes with them, Lapp is now able to manufacture products in its own facilities throughout the world. This is the only way we could have become one of the leading providers of integrated solutions and branded products for cable and connection technology.

But keeping our feet firmly on the ground and upholding Lapp's identity as a family-run enterprise are just as important to us: company founder Ursula Ida Lapp and her sons Andreas and Siegbert Lapp hold fast to their values and maintain a friendly relationship with customers, suppliers and employees.

A CABLE AS A BENCHMARK

What makes every metre of ÖLFLEX® stand out

There are good reasons why ÖLFLEX® has received decades of recognition as the industry standard for connection and control cables. Whether they are used in solar technology or soft drink bottling, in Shanghai or in San Francisco, a wealth of different industries and companies around the world are won over time and again by the reliability, precision, and quality of ÖLFLEX® – every day and with every metre.

Universal and indestructible

With its key properties of flexibility, oil resistance and universal application, ÖLFLEX® is able to fulfil the most demanding requirements placed on both electrical and mechanical features. It can be used for fixed connections or even integrated into drag chains.

Of course, different applications have different requirements. That is why we offer numerous specially adapted variants with precisely the right features required for different uses. So by choosing ÖLFLEX®, you can be sure you are choosing the right connection.



THE STORY OF A GLOBAL MARKET LEADER

Milestones from 50 years of ÖLFLEX®

The first industrially manufactured, flexible and oil-resistant control cable with colour coding. In 1959, Oskar Lapp revolutionised the connection technology market with ÖLFLEX®. His innovation meant there was no longer a need for the time-consuming job of inserting single cores and stranded interconnecting wires into conduits. And with that, he wrote the first chapter in a story of success. The triumphal progress of the ÖLFLEX® brand since then has also mirrored the success and growth of the family-run enterprise.

THE FUTURE'S BRIGHT TOO

Development of the new ÖLFLEX®

For an innovative company like Lapp, 50 years is an eternity. But in all those years, there has never been any reason to change the principles underpinning the successful ÖLFLEX® concept: it has truly stood the test of time. Many product variants have been introduced for specific industries and applications during this period, but only now is the time ripe for a new generation of ÖLFLEX®.

The increasing complexity of industries' requirements, coupled with a growing awareness of the need for more efficiency, were the decisive factors for Lapp

to put the concept behind its new brace of ÖLFLEX® products into practice. And once it had made this decision, the work could really begin. A complex research and development process pinpointed the key properties that mark out a particularly efficient ÖLFLEX® product, as well as additional improvements that could be made to the high-performance ÖLFLEX® CLASSIC 110. Numerous specialists in our development centres then worked to make these visions reality, one step at a time. The result was a brand quality concept to suit any requirement – exactly as many ÖLFLEX® solutions as are needed.

1957

Ursula Ida and Oskar Lapp found U.I. Lapp KG (now U.I. Lapp GmbH) in Stuttgart

1959

Invention of ÖLFLEX®

1963

Founding of Lapp Kabelwerke GmbH in Stuttgart – ÖLFLEX® produced on a large scale from this point

1976

Expansion into the USA: founding of Lapp USA Inc.

1995

ÖLFLEX® in Asia: founding of Lapp Logistics Ptd. Ltd. in Singapore

1997

ÖLFLEX® comes to India: opening of Lapp India Pvt. Ltd. in Bangalore

2003

ÖLFLEX® reaches Eastern Europe: new subsidiaries in Russia and Ukraine

2006

ÖLFLEX® in the Middle East: Lapp Cables Middle East FZE is founded in Dubai

2009

50 years of ÖLFLEX®

2012

A new member of the ÖLFLEX® family is launched on the market

2012

The ÖLFLEX® success story continues

We're writing the next instalment in the ÖLFLEX® success story

In two chapters

[CLASSIC 110]

Chapter one:
ÖLFLEX® CLASSIC 110. As reliable as ever,
this is the perfect cable to accompany you
on your path to success. To your advantage.



[SMART 108]

Chapter two:
ÖLFLEX® SMART 108. The story of a cable
that offers you exactly what you need.
Nothing more and nothing less.



[ÖLFLEX® CLASSIC 110] More temperature-resistant than ever ►



[ÖLFLEX® SMART 108] Maximum efficiency ►

ÖLFLEX® CLASSIC 110

State of the art for 50 years.
And now even better.

ÖLFLEX® SMART 108

Pure efficiency.
Without compromise.

APPLICATION RANGES

For all situations



OPTIONS

Where it really excels:
complex requirements

Our new ÖLFLEX® has become what industry has long believed to be impossible – a solution that is even more flexible than its predecessor. With 145 products and a maximum of 100 cores, it can be configured to suit practically any application. The new member of the ÖLFLEX® family takes a truly individual approach to challenges: even the cable's packaging is adapted to the needs of our customers, as they can choose it themselves. In fact, the new CLASSIC 110 represents a custom-made solution: the customer chooses the number of cores and the cross-section.



OPTIONS

APPLICATION RANGES

The smart solution

Its mission: efficient,
immediate availability

In the connections industry, availability is a crucial factor in staying competitive. It is for exactly this reason that our new solution is an astounding addition to the market – a cable that is available at any time. The ÖLFLEX® SMART 108 offers an even more efficient alternative to the CLASSIC 110. From now on, 29 products in this lower-priced range are available in standard lengths and packaging, and with up to 7 cores. In the future, Lapp can use this new range to focus even more on catering to the needs of its customers, by offering a lot of cable for very little money – and without the wait.

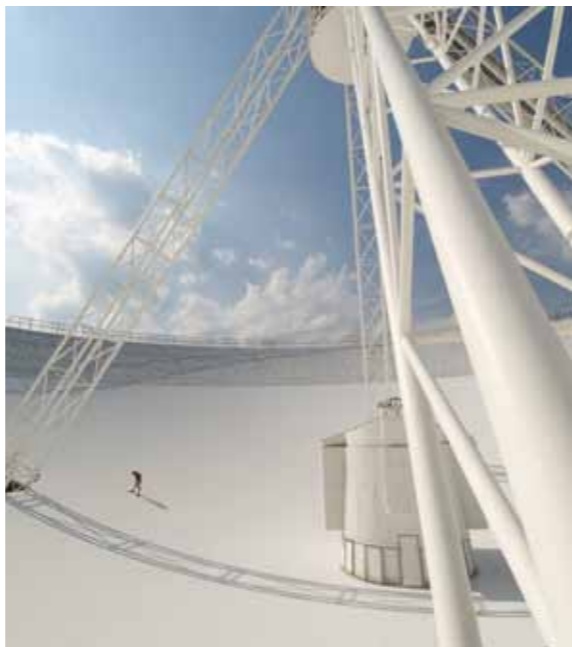


OPTIONS

RELIABILITY

For endless rotations

From towers to rotor blade tips, the new ÖLFLEX® CLASSIC 110 is not afraid of high speeds or distortion. After all, not only is it torsion-resistant, oil-resistant and suitable for drag chains, but it can also withstand almost all adverse conditions. Like its predecessor, it is particularly suitable for harsh conditions and proves a winning solution thanks to its excellent resistance to chemicals.



INNOVATION

Perfection, now even at -15°C

ÖLFLEX®: it was the world's first branded cable. As a pioneer of high-quality connection and control cables, its robustness and flexibility have been winning users over for more than 50 years now. Today it is the industry standard, and has long had this status. Universally applicable and oil-resistant, the ÖLFLEX® CLASSIC 110 offers the perfect solution to numerous challenges. The new generation represents an innovation in its response to freezing temperatures as it is able to work ten degrees below its predecessor, at -15°C.



RELIABILITY

Always on the safe side

We subject our developments to the very toughest endurance tests and have our own trial and testing centre for assessing performance. We place extremely high demands on our materials, as this is the only way we can promise our customers outstanding quality and meet global industry standards. In the same way, we have subjected the ÖLFLEX® SMART 108 to high bending cycles, tight bending radii, and aggressive media. And after years of development, we can now promise our customers in good faith that with the SMART 108, they'll always be on the safe side.



INNOVATION

Sustainability really is smart

It was the desire for increased efficiency that led to the development of ÖLFLEX® SMART 108. The desire for a new generation of ÖLFLEX® at a lower cost, but with the same great properties as the classic among control cables. Lapp has succeeded in fulfilling all these desires. This means that the SMART 108 is made of less PVC than the CLASSIC 110, which has a filled interstice. And not only is less material used for the insulation sheath, but Lapp has selected a less expensive type of material too. Specifically, the company has turned to reclaimed material, which is made of recycled plastic and thus consists of original material which has already been processed. It's a choice that is kind to both the environment and the wallet.



TECHNICAL DATA

Facts and figures for the ÖLFLEX® CLASSIC 110

Product features:

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance
- Temperature range of -15°C to +70°C for flexible use
- Suitable for drag chains (see data sheet)
- Torsion-resistant (see data sheet)
- Oil-resistant
- Fixed installation or flexible use for free, non-continuously recurring movement, without tensile strain
- Dry or damp rooms that are subject to normal mechanical stress

Application ranges:

Mechanical and plant engineering

Heating and air-conditioning systems

Power stations

TECHNICAL DATA

Facts and figures for the ÖLFLEX® SMART 108

Product features:

- Flame-retardant according to IEC 60332-1-2
- Good chemical resistance
- Temperature range of -5°C to +70°C for flexible use
- Fixed installation or flexible use for free, non-continuously recurring movement, without tensile strain
- Dry or damp rooms that are subject to normal mechanical stress
- Supplements ÖLFLEX® CLASSIC 110

Application ranges:

Mechanical and plant engineering

Heating and air-conditioning systems

Power stations



Core identification code
Black with white numbers acc. to VDE 0293



Insulation, specific contact resistance
> 20 GOhm x cm



Conductor stranding
Fine wire according to VDE 0295, Class 5/IEC 60228 Cl.5



Torsion application
in WKA TW-0 & TW-1 (see data sheet)



Minimum bending radius
Occasional flexing: 10 x outside diameter
Fixed installation: 4 x outside diameter



Nominal voltage
U₀/U: 300/500 V



Test voltage
4000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Occasional flexing: -15°C to +70°C
Fixed installation: -40°C to +80°C



VDE-tested
VDE reg. no. 7030 for the following sizes:
up to 2.5 mm²: 2-65 cores
up to 4 mm²: 2-7 cores



Core identification code
Black with white numbers acc. to VDE 0293



Insulation, specific contact resistance
> 20 GOhm x cm



Conductor stranding
Fine wire according to DIN EN 60228 (VDE 0295), Class 5



Minimum bending radius
Occasional flexing: 15 x outside diameter
Fixed installation: 4 x outside diameter



Nominal voltage
U₀/U: 300/500 V



Test voltage
4000 V



Protective conductor
G = with GN-YE protective conductor
X = without protective conductor



Temperature range
Occasional flexing: -5°C to +70°C
Fixed installation: -40°C to +80°C



VDE-Registrierung
VDE reg. no. 8639 in preparation

