WACHENDORFF
Automation GmbH & Co. KG

Encoders and systems



- Incremental and absolute encoders
- Length measurement systems and draw-wire system
- Digital shaft copying
- Made in Germany

WARRANTY 5 YEARS JAHRE GARANTIE

IndustrieROBUST



We are one of the world's most innovative medium-sized manufacturers of encoders
Take advantage of our more than 45 years of experience and the robust technologies of our intelligent sensors to find efficient solutions for your applications.
As your partner, we want to ensure your long-term success.

Wachendorff

Quality
- 5-year warranty
- DIN/ISO 9001:2015
- UL certification

Agile
- Modular system
- Useful accessories
- Intelligent systems
- Varieties for your application

Innovative
- Joint successful construction
- Key technologies



Cooperation
- Intensive partnership
- 24-hour delivery
- Worldwide access

Experience and expertise
- Over 45 years of development and manufacturing
- Worldwide more than 3,000 customer solutions

Reliable
- Selective component choice
- Long service life
- Seamless traceability

- Competent and experienced advice
- Individual solutions for your application
- Extending your lead together

We would like to inspire you
As a medium-sized family business, we live and work for optimum customer satisfaction and want to grow sustainably, together with you. Our high-performance sensors ensure that you obtain a technological advantage worldwide.The internal sales force and technical support for Germany and Europe are located in Geisenheim; the field sales force, on the other hand, is organized on a decentralized basis: The direct sales in Germany is divided into 5 areas. Wachendorff sales engineers are employed here. In Europe, Africa and Asia, our channel managers are the important link to our technical distributors. In the USA/Chicago and China/Suzhou, Wachendorff sister companies act as sales offices, ensuring short distances to partners, customers and interested parties. Contact us, we will find a solution together.

From person to person

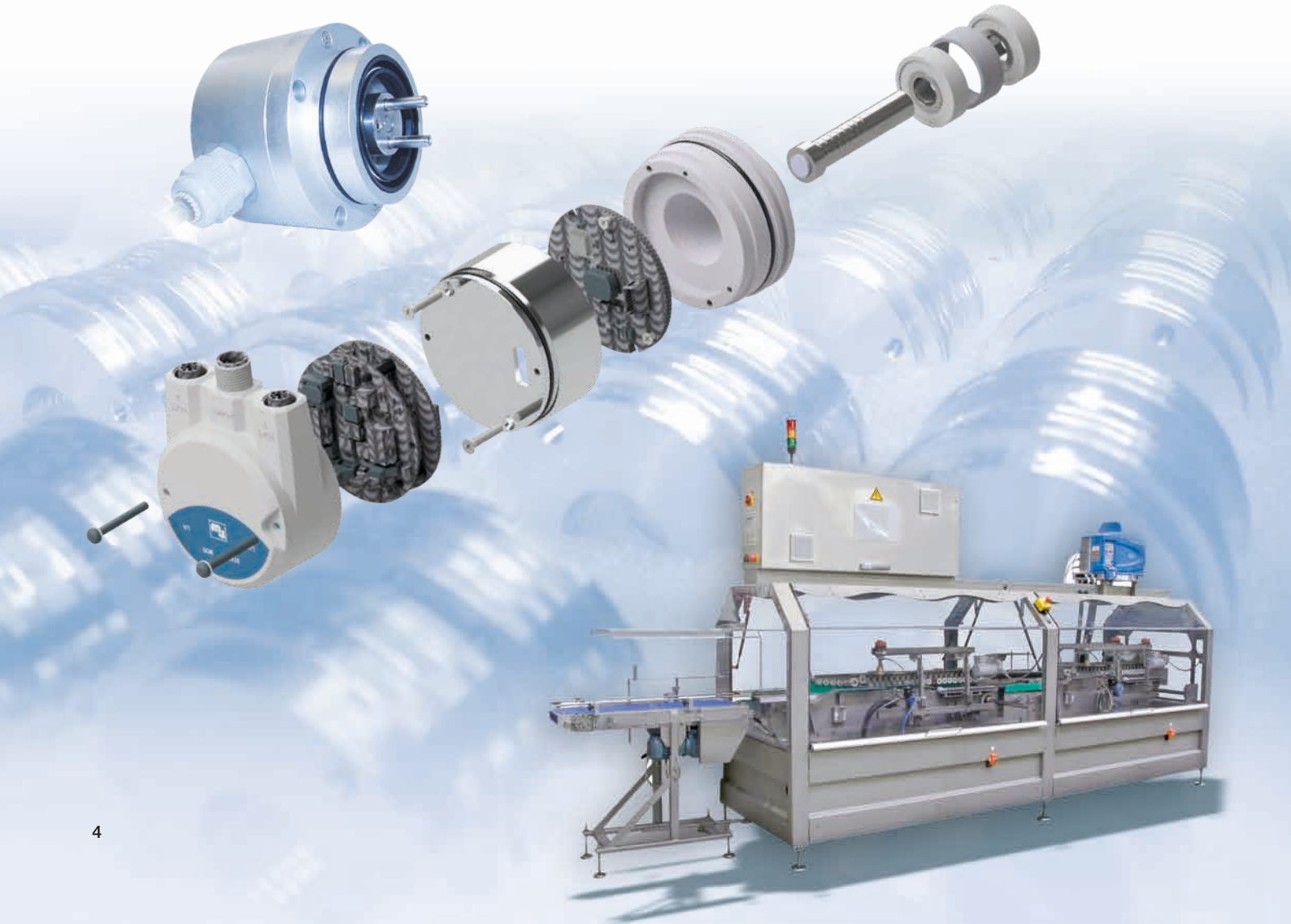


www.wachendorff-automation.com/contact

- Large standard range in modular design
- Variants for your application, OEM prototyping
- Compact designs, innovative technologies

Design innovation together
We develop customised solutions alongside our extensive standard range. If you have mechanical or electrical requirements specific to your systems or machines, then you've come to the right place. Many clever solutions have already been found in partnership with our customers.

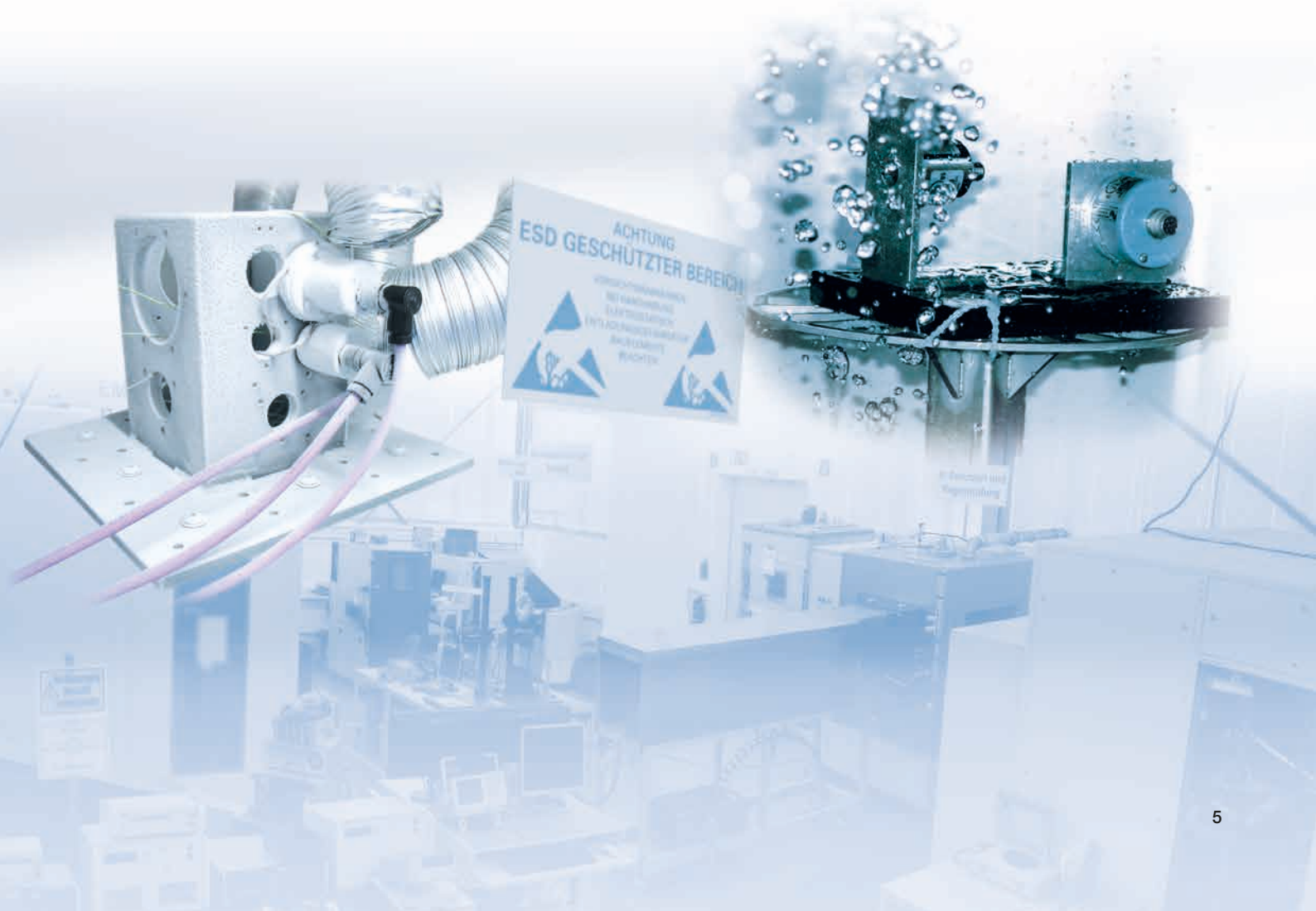
Developed in Germany



- Intensive qualification and verification with environmental simulations
- Detailed tests during development
- Long-term reliability in harsh environments

In-house qualification for harsh applications with 5-year warranty
When developing new products, we take into account more than 400 global standards and guidelines and conduct more than 100 design tests, including HALT. We have also added 25 factory standards for the qualification and verification of our products. You get a robust and precise sensor solution for your application.

Qualified in Germany



- Everything is possible: from the individual item to large-scale production
- Complete traceability
- Quality assurance and CIP
- GANT production planning ensures high delivery reliability

Our LeanQ philosophy:
Digital manufacturing for your advantage
In the computer-guided assembly of our encoders and systems, we put great emphasis on efficiency, traceability and zero-defect tolerance. With a further developed one piece flow method, LeanQ is designed for both individual items and large production runs.

Manufactured in Germany



- Proven in many industries worldwide
- Modular solutions for your application
- Robustness opens up many possibilities
- Special properties for specific industries

Benefit from our extensive industry knowledge
Because of our extensive experience in the most diverse applications we have developed specific industry solutions over time. Here are a few examples: Food-grade devices for food production, salt spray-resistant housings for onshore/off-shore, small dimensions and high vibration resistance for mobile machinery and AGVs, shaft copy systems with incremental or absolute CANopen Lift interface, length measuring systems for inline markers and quality assurance systems, encoders for speed measurement and pitch control on wind turbines and many details that are helpful for other industries. We are sure to have a solution for your application. Give us a call.

Industry solutions



www.wachendorff-automation.com/industries

- Compatible with all common encoder types
- Modular system for 1:1 replacement
- Our experience for your better alternative

Are you looking for an alternative?
Our experienced team will be happy to advise you on which of our products is compatible with the competitor. We will quickly find a substitute with our clever modular system. We often also give our customers a recommendation for an improvement, such as for assembly or handling. Ask us, we look forward to hearing from you.

Switching made easy



www.wachendorff-automation.com/change

- All information in one place
- Your questions answered with just a few clicks
- In just a few minutes you find your encoder with our online configuration tool

It couldn‘t be easier

On our homepage you will quickly and clearly find all the information you need to make a decision about our products and solutions. Are you looking for an incremental or absolute encoder, but don‘t know which one really fits your application? Then simply go to:
www.wachendorff-automation.com/configurator
You can put together your configuration in any order and receive a data sheet as a PDF with all the specifications and drawings of exactly the device you have configured, just in time.
Of course, you will also find your contact person here, who is looking forward to hearing from you. Let us advise you and configure together with our application consultants.

Online configurator



- Up to 16,384 ppr, TTL, HTL, sin/cos
- Optical or magnetic
- High shaft load up to 500 N
- Preventive maintenance with early warning output
- Copes with tough industry and automotive conditions

The right technology for every application
With the large selection of pulse numbers, output circuits, connector and cable varieties, protection classes and temperature ranges, you will find precisely the right incremental encoder from our extensive range.

Incremental encoders WDGI



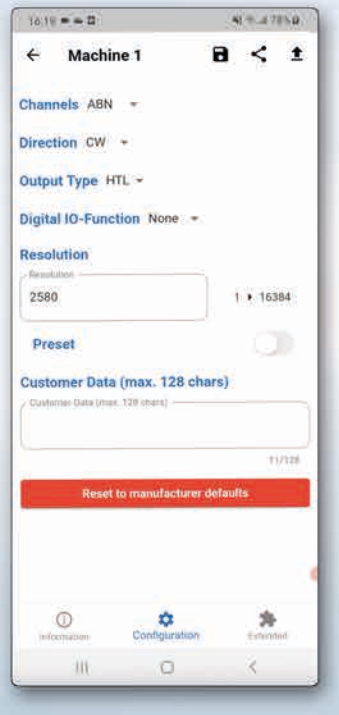
www.wachendorff-automation.com/encoders-inc

- Any number of pulses up to 16,384 ppr configurable via smartphone
- HTL/TTL and other parameters
- Protection class up to IP67/IP69K
- High output frequency up to 1 MHz
- Reverse polarity and short circuit protection at 4.75 VDC to 32 VDC

Always the right incremental encoder at hand
Using your smartphone, you can configure the number of pulses from 1 ppr to 16,384 ppr, ABN and inverted, HTL or TTL via our app and then load them onto the WDGN encoder without contact or voltage. Load an existing configuration or share a configuration to use on another WDGN encoder. With the Advanced version, you can also configure a fourth channel and set the number of pulses, the pulse width and the pulse position separately for all 4 outputs. The zero pulse can be set via the smartphone or a signal line.

Incremental encoders WDGN





- EnDra® multi-turn technology: wear- and maintenance-free
- QuattroMag® single-turn technology: up to 16 bit, dynamics of 50 µs
- High shaft load up to 500 N
- Protection class up to IP67/IP69K

Single- or multi-turn: latest technologies

Whether you realise your application with a single-turn or multi-turn, you can expect practical innovations in either case.

QuattroMag®

The single-turn field with QuattroMag® technology provides a high resolution of up to 16 bit, precision of ±0.0878° (12 bit) and dynamics of 50 µs.

EnDra® Technologie

The unique and distinguished EnDra® multi-turn technology reduces construction space and is extremely environmentally friendly; it operates without batteries or gear boxes.

Robust and long-lasting magnetic technology from Wachendorff can now be used in many areas that once required highly precise and sensitive optical measuring equipment.

Absolute encoders WDGA



www.wachendorff-automation.com/absolute

- Industrial Ethernet: PROFINET, EtherCAT, EtherNet/IP
- Integrated web server
- Universal IE: 3 protocols in one unit
- Robust with IP67 and up to 500 N bearing load

Comprehensive series for Industrial Ethernet applications
The absolute encoder series Industrial Ethernet WDGA IE consists of solid shaft encoders, hollow shaft encoders and the WDGA 58F, the most compact IE encoder in the world. The mechanics are identical for each protocol. The encoder can be configured or updated easily by a web browser. Depending on the protocol, the encoders are simply integrated and configured in the TIA Portal, in TwinCat, in other project planning tools or via the integrated web browser.
Reduce your stock, simplify service operations and remain absolutely flexible - the WDGA Universal-IE is the right choice for this. By web server, you can choose between the three most important Industrial Ethernet interfaces.

WDGA Industrial Ethernet



www.wachendorff-automation.com/uie

- Two independent encoders incremental and/or absolute in one housing
- Security for your machine
- Diversity through 2 measuring principles
- High performance level achievable

High performance levels and lower costs
For the implementation of a safety function in accordance with e.g. Performance Level d or SIL 3, not all components necessarily have to meet the safety requirements directly. Often the required safety level can be achieved with redundant information and the appropriate control system. In concrete terms, our redundant standard encoders provide diverse (magnetic and optical) signals that are generated completely independently, but can still be correlated with each other. Even the supply voltage is available separately for each sensor unit. Almost all safety-related control or monitoring systems have conventional inputs. This makes it possible to use inexpensive standard components with high-quality redundant encoders from a process-controlled assembly and to achieve the required safety level cost-effectively.

Redundant encoders WDGR

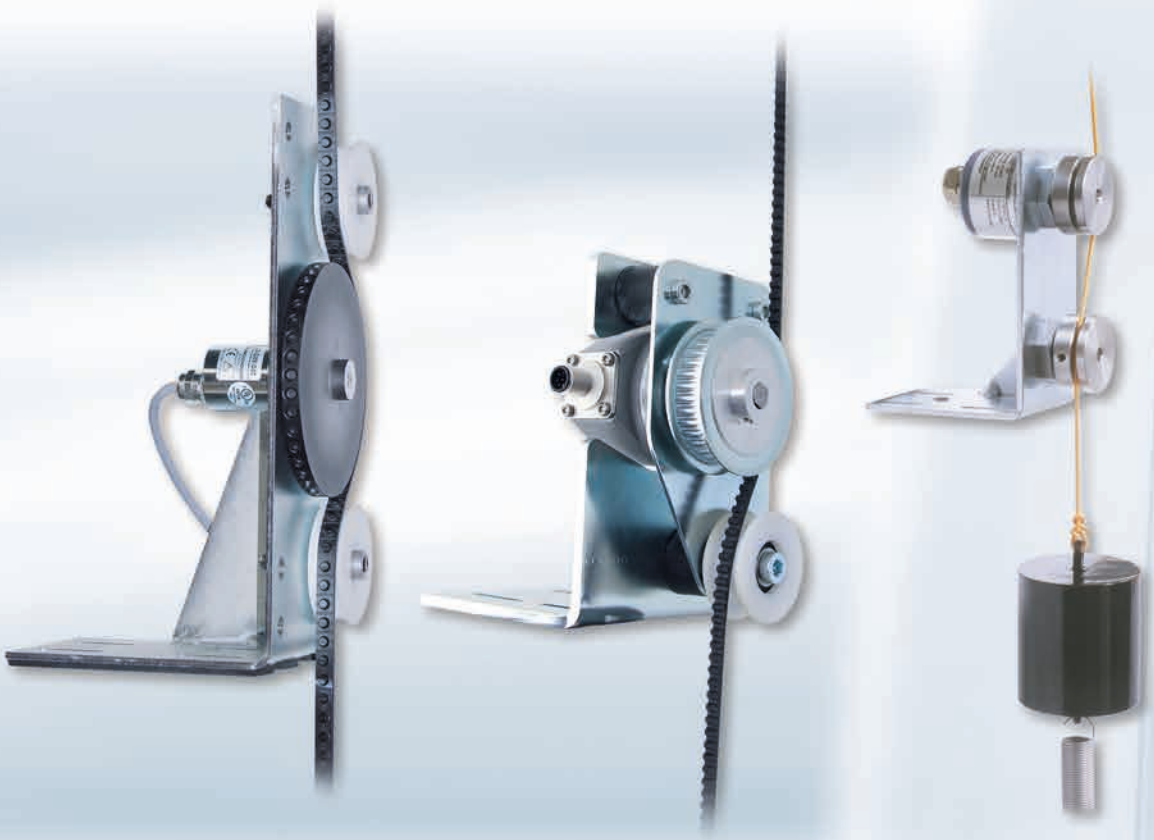


www.wachendorff-automation.com/encoders-redundant

- Up to 4 m/s and up to 120 m high
- Precise measuring of position and speed
- Very easy assembly
- Pre-mounted assembly kits for every installation situation
- Incremental, CANopen, CANopen Lift, SSI

Silent Move, the world's quietest belt system
Whether hydraulic or motor-driven elevators, we always supply you with the right system. The maintenance-free copying systems are available as circumferential or guided, with the unique nubbed belt or a quality tooth belt, as a complete assembly kit or measuring unit. They leave nothing to be desired.

Digital shaft copying

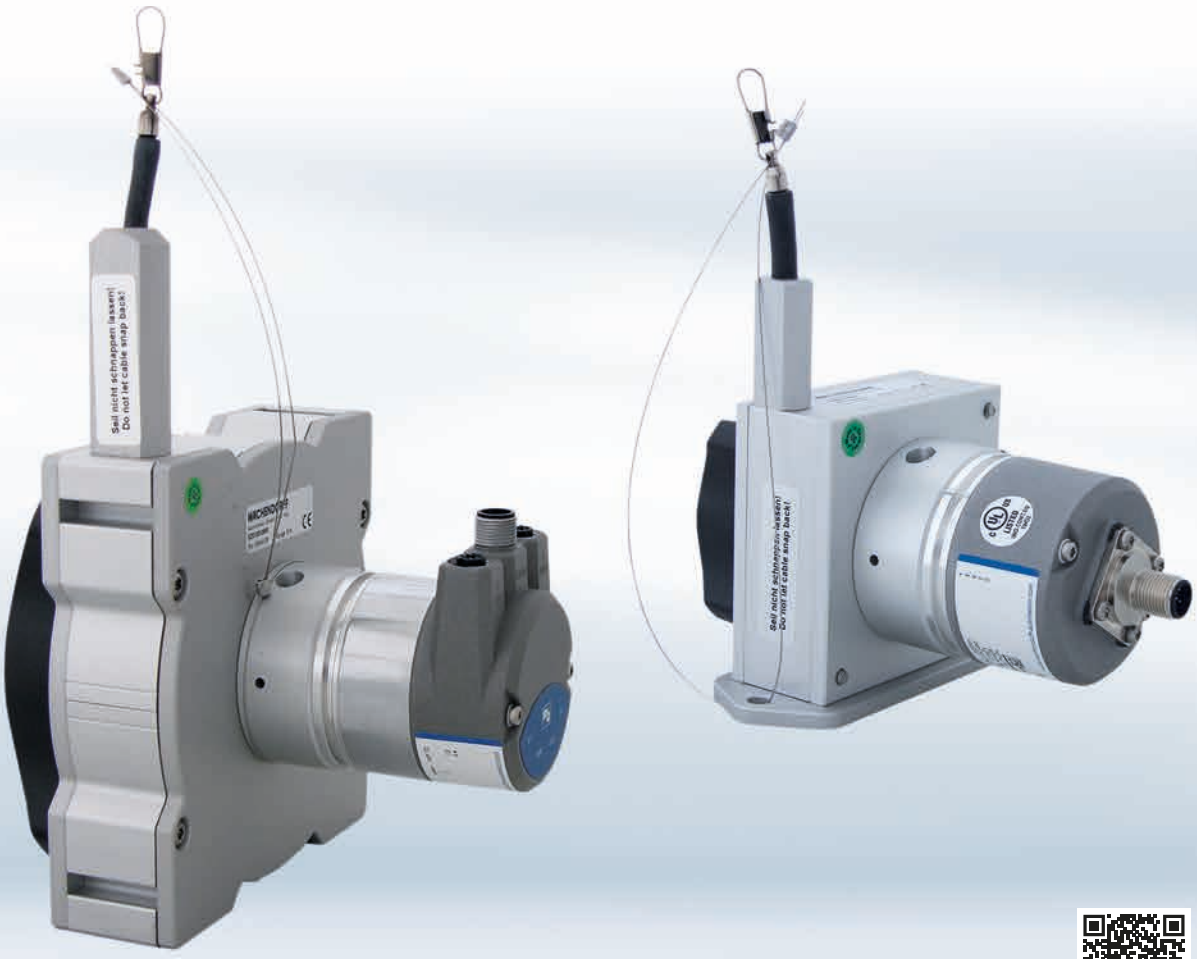


www.wachendorff-automation.com/sko

- Robust and compact up to 40 m
- High-precision mechanics with high linearity
- Long lifetime in harsh environment
- Quick assembly
- Incremental and absolute

Large measuring range in a compact design
The series of draw-wire systems is equipped with incremental or absolute encoders. The extremely robust and precise mechanics, in combination with a stainless steel cable, have a very long life expectancy. Cable lengths of 1.25 m to 40 m and a wide range of usable resolutions and interfaces give us the opportunity to determine the right draw-wire system for you. Our team will be happy to advise you.

Draw-wire systems SZG



www.wachendorff-automation.com/szg-info

- Space-saving and robust complete system for position, speed and length
- Suitable for almost any surface
- Quickly mounted and adjusted
- Patented grid for safe adjustment of the pre-tensioning force

Measurement of speeds and travel lengths
With the LMS length measuring systems, consisting of a spring arm, a rotary encoder and the appropriate measuring wheel for the corresponding surface (e.g. wood, plastic, foil, cardboard, textiles, rubber, metal), you can precisely measure the speed and position in your application. Ideally suited for e.g. measurements on continuous linear or rotary movements. You can choose between different designs, mounting directions, signal outputs and measuring wheels. We will be happy to advise you on the optimal solution.

Length measurement systems LMS



www.wachendorff-automation.com/lms-info

- Couplings for every application
- Mounting accessories for quicker installation
- Pre-assembled cables and connectors
- Torque supports and shaft adapters

Our accessories complete your solution
You will recognise our many years of experience in the large selection of useful accessories. Nothing is left to chance. Here, you will find everything you need for efficient encoder installation. If you can't find something at first glance, give us a call and we will be happy to help.

Accessories



www.wachendorff-automation.com/ acc

- New products and functions
- Information on firmware/software updates
- Information on events and trade fairs

Monthly newsletter and social media
With our monthly newsletter we inform you about new products in our portfolio, innovative device features, firmware/software updates or also about events or online trainings as well as trade fair participations.
You can also follow us on our social media channels on YouTube and LinkedIn. This way you are guaranteed not to miss any news; moreover, we often provide information here with a head start.

Stay up to date

Newsletter
https://www.wachendorff.com/newsletter/

LinkedIn
https://de.linkedin.com/company/wachendorff-automation-gmbh-&-co-kg

YouTube
https://www.youtube.com/channel/UC4SEAQZDNN55scn5WJqgG3Q

www.wachendorff-automation.com



The Wachendorff Group

- Delighted customers
- Corporate responsibility
- Attractive to good employees
- Outstanding quality
- Technological leader
- Environmental protection
- Profitable growth

We are a medium-sized owner-managed corporate group based in the beautiful Rheingau district, situated to the west of Wiesbaden.

Competent, personal, face-to-face advice and long-term collaboration with our business partners are the cornerstones of our continual growth. We are certified according to DIN ISO 9001:2015.

Wachendorff Automation GmbH & Co. KG
The development and manufacturing of rotary encoders, engine feedback devices and complete measuring systems for use in a wide range of serial production applications in mechanical and plant engineering.
An extensive standard range featuring numerous options and efficient development of customised solutions.
Wachendorff Automation has sister companies in the USA and in China: Wachendorff Automation USA, Inc. in Chicago and Wachendorff Automation (Suzhou) Co., Ltd., as well as a worldwide network of competent distributors.

Wachendorff Prozesstechnik GmbH & Co. KG
A reliable supplier since 1978 of robust, high quality industrial devices for visualising, communicating and processing data in the areas of mechanical, plant and building automation.

VISUALYS GmbH
VISUALYS focuses on the development, integration and consulting of software around the topics of Industry 4.0, SmartData and IIoT for machine and plant manufacturers and operators. The core competence lies in data **VISU**alisation and data an**ALYS**is.

WACHENDORFF

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Your distributor: