EGS AUTOMATION

AMETEK

SUMO Catalog

- Workpiece-handling
- Palletizing systems
- Tray stackers
- Robotics

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Your partner for production automation

AMETEK / dunkermotoren / MAE / EGS AUTOMATION / nexofox

SUMO
Automation systems

SUMO automation systems - well thought-out, tried and tested and fully developed - a range of economical standard solutions that can be used in many applications and industrial sectors. Your advantages: Quick delivery times and smooth installation.

SUMO automation systems are reliable, robust, durable, efficient and economical.

Versatile and flexible

SUMO systems are used to automate processes in a wide variety of application areas:

» Plastic injection molding machines
» CNC machining centers and lathes
» Laser marking systems
» Measuring systems
» Packaging machines
» Presses and punching machines
» Woodworking machines
» On dosing systems
» In surface processing
» ...

Workpiece storage and autonomy

Intelligent workpiece storage and handling through the use of different workpiece carrier concepts:

» Delivery via accumultion conveyors or transport trolleys
» Manual stocking
» Unorganized delivery of the workpieces and subsequent sorting
» For small batches: Manual preparation and removal

Additional added value

Beyond the automation of the actual process there is often unused potential in an automation system:

» Integration of additional tasks into the automation process
» Increasing efficiency by considering the entire process chain

Maximum compactness

» Space-saving retrofitting implementation in production areas
» Compact design of the SUMO systems, with optinal even more compact XYZ gantry instead of industrial robots
» Accessibility to operating elements of the machine or process guaranteed

Industrial robots - the central component

» Well-designed, durable and low-maintenance
» Guaranteed reliable production processes
» Flexible, additional processes can be added on at any time

Intelligent robot gripping systems

» Single, double or multiple gripping of the tool
» Decades of experience in development and implementation

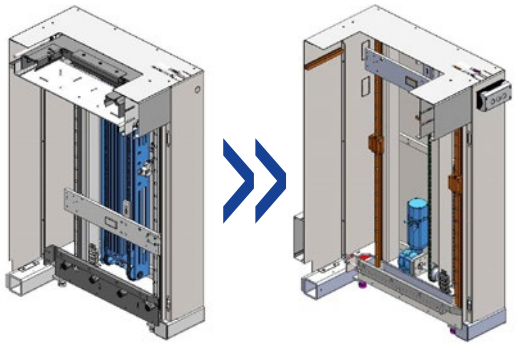
Electrical interface

Connectivity:

» Adaptation to existing interfaces on the automation side
» Digital PLC inputs and outputs
» All common bus systems available
» Remote access via remote maintenance module

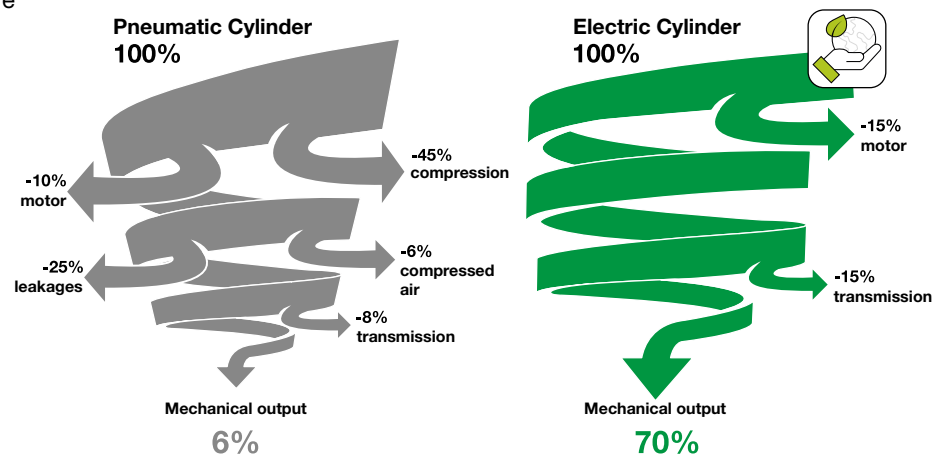
SUMO
All-electric versions

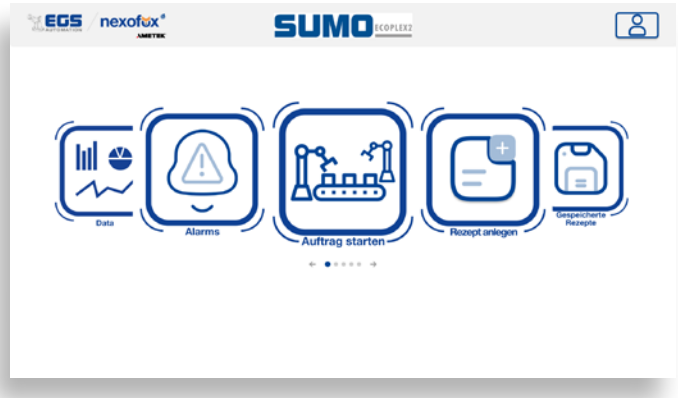
For many of our SUMO standard solutions, the complete replacement of pneumatic axes with electric axes.

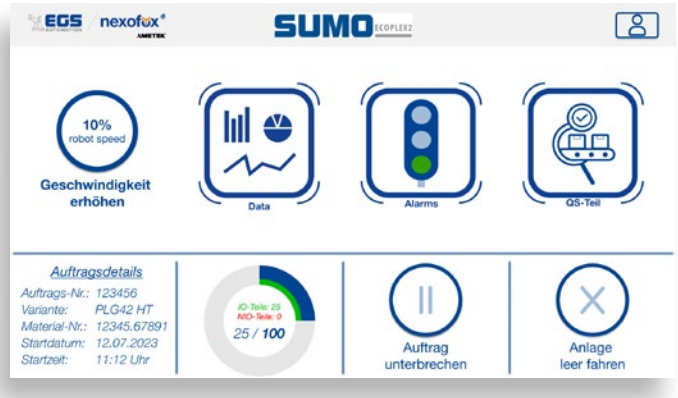


Advantages:

- High energy saving potential compared to pneumatics
- Better movement control - smooth, controllable movements and therefore an extended range of applications
- Lower operating costs through reduced energy consumption
- Lower installation costs
- Fewer components and lower maintenance costs
- The use of intelligent and smart motors reduces the control effort







EGS Smart Pad

The EGS Smart Pad is the graphical, intuitive and convenient user interface for all EGS SUMO automation systems. It enables complete control over all relevant data and relevant data and recipes without the need for robot or programming skills. The EGS Smart Pad offers a user-friendly 15.6 Zoll touchscreen, which is clearly divided into menus, operating and monitoring options for:

- Start, create and observe orders
- Selection of already stored variants and the creating new component types (recipes)
- Overview and classification of messages and alarms
- Display and monitoring of production and plant data
- System operation like start, stop, start-up, empty run, etc.

In addition to the IIoT-ready package, the SUMO systems are ready for the Industrial IoT.

SUMO
Program overview

Time for your new SUMO system

Choose the automation system that best suits your task

DUPLEX

"The space-saving entry to automation

» Compact, user-friendly, profitable
» Individual adaptation of pallets to workpieces
» Minimal space requirement

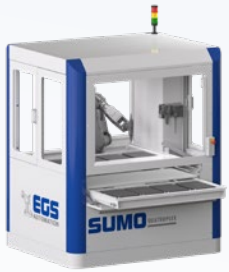
EASYPLEX

"The cheap, simple and universal entry into automation

» Universal, smart, cheap
» Workpiece storage in standard containers, inlay individually configurable
» Compact, user-friendly friendly design and good level of accessibility

QUATROPLEX

"The simple and variable drawer system



» Compact, user-friendly, profitable
» Workpiece storage in pallets, integrated workpiece holders or through camera recognition
» Compact design with high workpiece autonomy

Robot load capacity	up to 10 kg	up to 12 kg	up to 12 kg
Robot range	up to 1.101 mm	up to 1.440 mm	up to 1.440 mm
Autonomy / capacity	2 Pallets	3 Pallets	4 Pallets
Possible pallet / workpiece carrier type	600 mm x 400 mm (¼ Euro pallet)	600 mm x 400 mm (¼ Euro pallet)	600 mm x 400 mm (¼ Euro pallet)
Parts weight max.	7,5 kg	7,5 kg	7,5 kg
Pallet load max.	20 kg	14 - 20 kg depending on robot	30 kg per storage level
Pallet change time	< 10 s	< 8 s	< 10 s
Palletizing system area	ca. 1,40 x 1,18 m	ca. 1,35 x 1,40 m	ca. 1,80 x 1,50 m
Weight	ca. 550 kg	ca. 500 kg	ca. 750 kg

"Your advantage:

The perfect mix of customized solutions on the basis of standardized modules and individual adaptation to your workpieces and your process.

Coordinated interfaces, proven software modules and highly available hardware save you time and reduce your workload.

MULTIPLEX

"The space-saving universal system with great autonomy

» Compact, robust, efficient
» Pallets can be individually adapted to the workpieces
» Minimal space requirement with high autonomy

ECOPLEX2

"The highly flexible, space-saving universal system with clever workpiece feed

» Flexible, ergonomic, efficient
» Variable workpiece feed via insertion carriage or belts
» Quick and easy loading with high autonomy

MEGAPLEX

"The flexible universal system with mega workpiece autonomy

» Flexible, powerful, efficient
» Workpiece feed in stacked workpiece carriers on trolleys
» Quick and easy handling with mega-autonomy

EUROPLEX

"The multifunctional, robust universal system for the Euro pallet format

» Flexible, versatile, profitable
» Quick and easy handling of heavy or voluminous parts
» Designed for workpiece feed with industrial trucks

up to 25 kg	up to 25 kg	16 - 88 kg	16 - 180 kg
up to 1.730 mm	up to 1.730 mm	up to 2.538 mm	up to 2.702 mm
12 Pallets	1 stack with 800 mm net stack height	2 stacks with a net stack height of 1,100 mm each	2 places (expandable with further systems)
600 mm x 400 mm (¼ Euro pallet)	Stackable workpiece carriers in a wide variety of formats up to max. 600 mm x 400 mm	Stackable workpiece carriers in a wide variety of formats up to max. 800 mm x 600 mm	up to 1.200 mm x 1.000 mm
7,5 kg	7,5 kg (optional more)	up to 15 kg	up to 120 kg
20 kg	20 kg (optional more)	up to 50 kg	up to 500 kg
< 10 s	< 10 s	< 10 s	< 20 s
ca. 1,40 x 1,09 m	ca. 1,35 x 2,14 m	ca. 3,20 m x 1,70 m	ca. 2,80 m x 1,35 m
ca. 600 kg	ca. 900 kg	ca. 1.800 kg	ca. 1.300 kg

SUMO
Program overview

Time for your new SUMO system

Choose the automation system that best suits your task

FLEXIPLEX

"The clever and variable automation for large part variance

» Variable, user-friendly, profitable
» Quick changeover in a few simple steps without changing parts or tools
» Small series, different part geometries

OPTIPLEX

"The economical and flexible automation for your deburring process

» Variable, reliable, compact
» Automatic or manual loading of the belt feeder
» Deburring results of consist-ently high quality

MINIPLEX

"The compact and highly dynamic sorting, palletizing and stacking system

» Compact, fast, profitable
» Small parts assembly to customized workpiece carriers
» Fast palletizing and stacking

	FLEXIPLEX	OPTIPLEX	MINIPLEX
Robot load capacity	up to 25 kg	up to 12 kg	up to 7 kg
Robot range	up to 1.730 mm	up to 1.440 mm	up to927 mm
Autonomy / capacity	Dimensions of the active infeed conveyor: 600 mm x 1,950 mm in 4-5 tracks depending on the adjustment range	Automatic or manual loaded belt	1 stack with 450 mm stack height, modular expandable
Possible pallet / workpiece carrier type	Manual insert	Manual insert	Stackable workpiece carriers in a wide variety of formats up to max. 400 mm x 300 mm
Parts weight max.	15 kg	7 kg	1 kg
Pallet change time	–	–	< 10 s
Tool stations	–	3	–
Deburring processes	–	Milling, countersinking, drilling, brushing, grinding, cutting	–
Workpiece alignment	–	Camera, sensor or by device	–
Space requirement	ca. 3,95 x 1,50 m	ca. 2,16 x 1,24 m	ca. 1,75 x 1,70 m
Weight	ca. 800 kg	ca. 800 kg	ca. 350 kg

FOTOPLEX

"The flexible universal feeding system for disordered workpieces

- » Flexible, versatile, profitable
- » Clever feeding solutions for pre-separating the workpieces
- » Maximum flexibility and positioning from an unorganized situation

up to 10 kg
up to 1.101 mm
Recirculating belt or feeder
–
–
–
–
–
2D/3D position detection incl. orientation
ca. 2,16 x 1,24 m
ca. 800 kg

"Your advantages with EGS Automation – what sets us apart

Thanks to modern technology, people and EGS Automation can work together efficiently in three-shift production 365 days a year efficiently side by side. More than 2,300 sold robots speak for themselves - and more are added every day!

By integrating our robot systems into your operations, you can expand your workforce with an intelligent solution that offers the benefits of fully automated, reliable operation.

High machine availability through tried and tested, standardized modules.

Short delivery times through standardized components and greatly reduced engineering times.

Long Lifetime the robust design and the protected arrangement of sensitive components and sensors.

After all, you need a reliable new production member!

All out of one hand from design, through programming to the commissioning and service of the systems.

Turnkey Solutions - Our complete solutions and additional equipment

We are your competent partner when it comes to customized, turnkey solutions. You benefit from our many years of in-depth expertise in automation for the production and processing of metal and plastic parts.

Depending on the quality requirements, customer requirements, investment volume and desired degree of automation, the entire process or parts of it can be automated. Our engineering department will assist you with the selection, design, integration and optimization.

Automation of your processing machines & processes

Plastics processing:

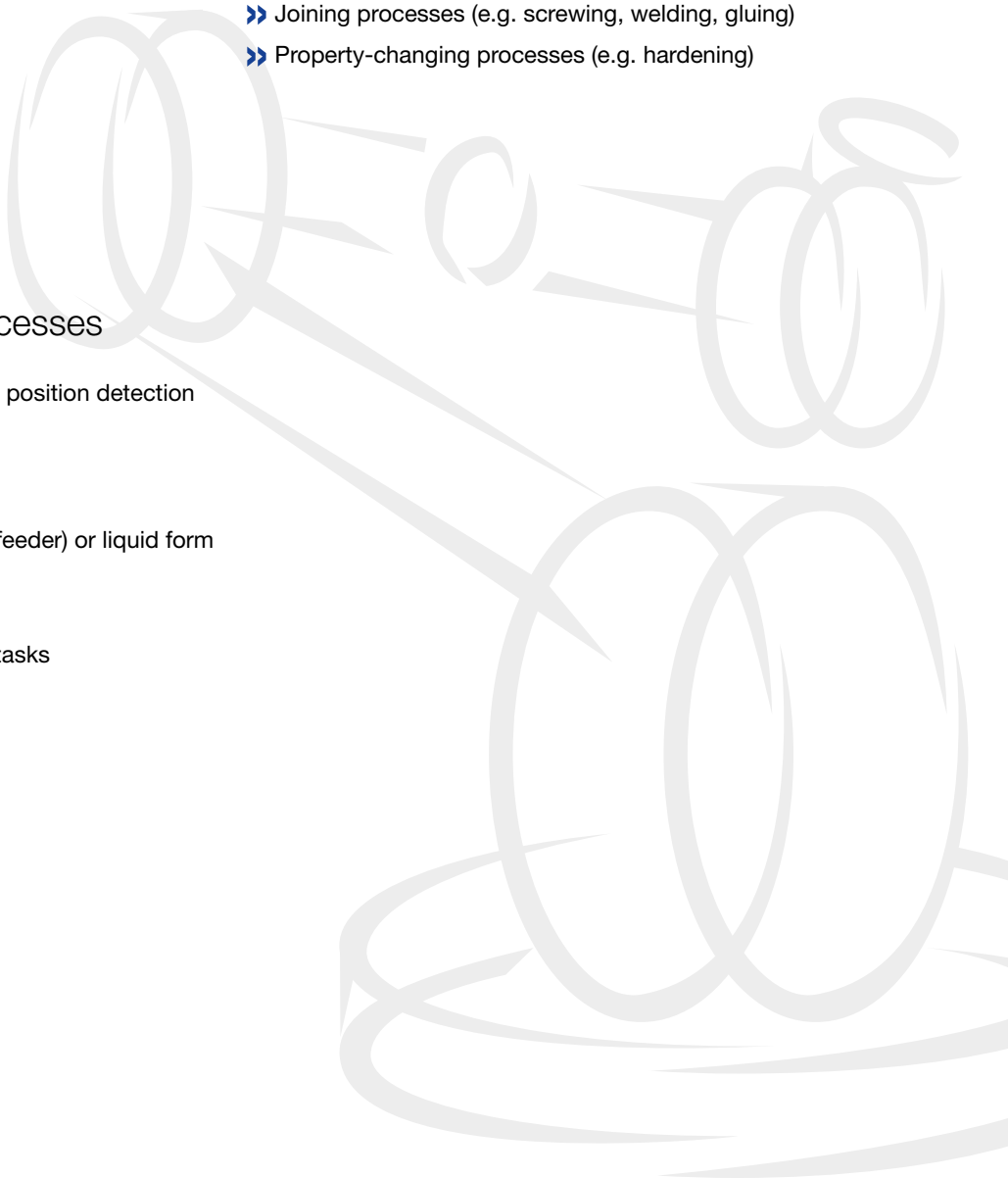
- Injection molding processes on vertical and horizontal machines
- Single and multi-component applications
- Upstream processes for the provision and preparation of inserts
- Downstream processes for testing, reworking and assembly of hybrid components
- Packaging processese

Metal processing:

- Forming manufacturing processes (e.g. bending, rolling, forging)
- Cutting processes (e.g. sawing, laser cutting)
- Machining processes (e.g. turning, milling, drilling)
- Finishing processes (e.g. honing, lapping, polishing)
- Joining processes (e.g. screwing, welding, gluing)
- Property-changing processes (e.g. hardening)

All-in-one solutions - Integration of additional processes

- Image processing solutions 2D and 3D position detection and quality control
- Assembly tasks of all kinds (e.g. screwing, press-fitting, clipping)
- Feeding parts or material in solid (e.g. feeder) or liquid form (e.g. dispenser)
- Packaging tasks
- Optical, tactile or electrical inspection tasks



Automation of the entire process line

Field-IIoT communication Device Cloud und Applications

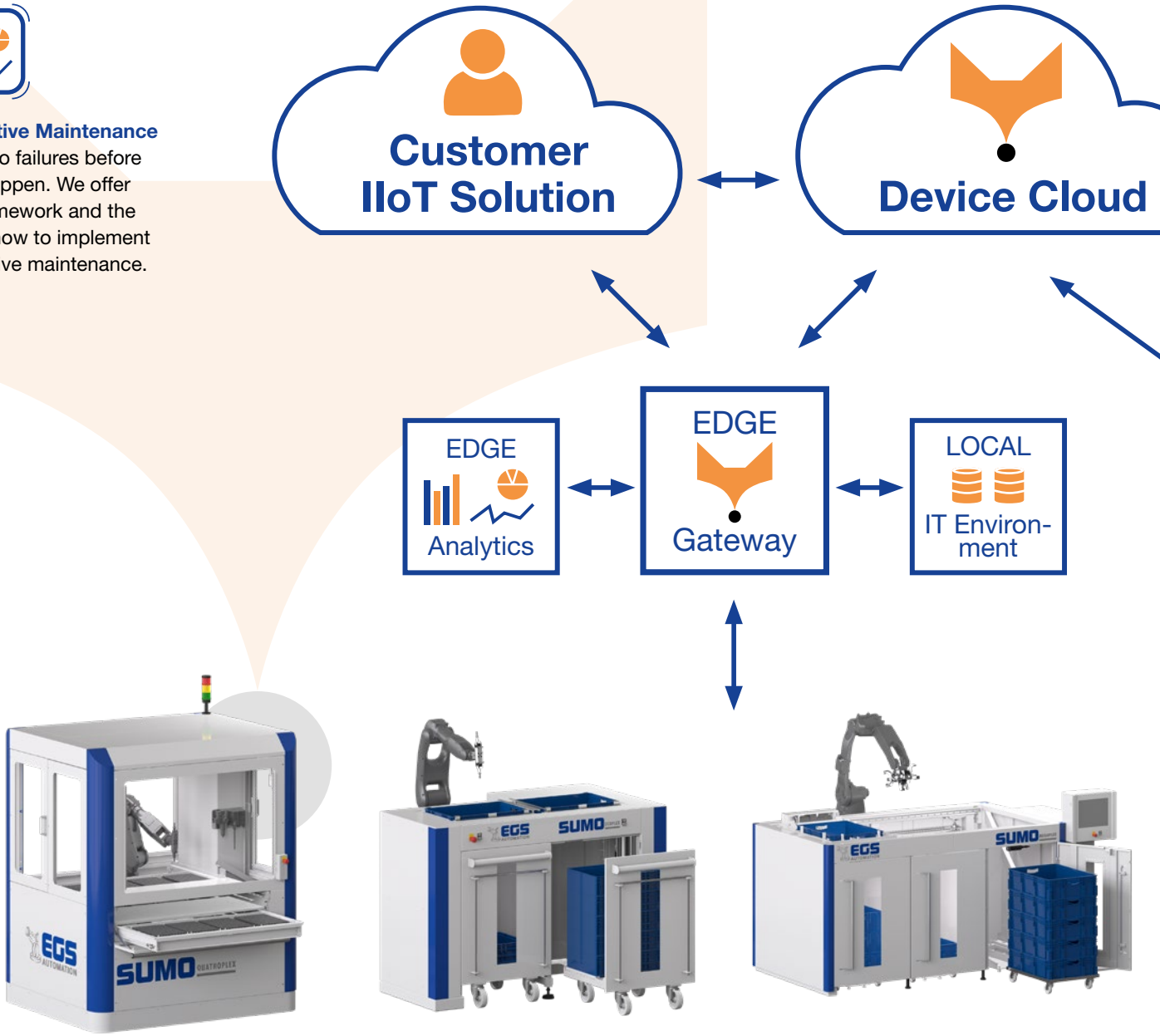
Permanent condition monitoring of automation systems or individual units and components of a system as well as preventive maintenance are essential building blocks for maximum productivity. This prevents stoppages and downtimes are prevented and delivery bottlenecks avoided.

We therefore offer our customers, together with Dunkermotoren under the nexofox brand, the implementation of holistic solutions for monitoring and preventive maintenance of robot systems or industrial robots and motors.

Remote Monitoring
Keep an eye on your worldwide EGS Automation Systems (alarms/status/ real-time diagnostics)

Remote Setup
React immediately to changing conditions via remote access (Software, settings)

Predictive Maintenance
React to failures before they happen. We offer the framework and the know-how to implement predictive maintenance.



Your benefit

- Save time and money with our solution. Through the remote diagnosis of our EGS automation systems quick and cost-saving remote maintenance is possible.
- Who knows our products better than us? Focus on your application and leave the connection setup and diagnostics to us.
- We rely on open standards and architectures for best possible flexibility when expanding the IIoT solution.
- We handle your data responsibly. We comply with the highest safety standards right from the design stage.

Through our collaboration in the Open Industry 4.0 Alliance and MindSphere World, nexofox is actively shaping the future.

”Have we aroused your interest? Then please feel free to contact us with your requirements.

Together we will find the perfect and individual solution for you.

EGS AUTOMATION

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