

# Products & Solutions

Intelligent intralogistic solutions





Whether in logistics or in production – we develop tailor-made solutions for the complete warehouse.

With our pick-by-light solutions you optimize workflows, increase the performance of employees and make processes more efficient. Whether in order picking or in the production for the supply of materials.

### **LOGISTICS SOLUTIONS**

Groundbreaking, flexible and individual. Our systems adapt to the customer. With our solutions you reduce your error rate, speed up processes, relieve your employees and save high costs.

### **PLAN. DESIGN. REALIZE.**

We make your concerns our own. Targeted and individual, we start each project together with you and look after our customers from the problem to the finished solution. We focus on the employee and automate and optimize processes using the most innovative technologies and years of experience.

### **PROCESS OPTIMIZATION**

No matter if it's mail-order business or worker guidance in the industry – Your processes are simplified and accelerated with the help of our solutions. As an independent isolated solution or complex production lines – the applications of our solutions are almost unlimited.


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***Mail-order business or industry - Your processes are simplified, accelerated and secured with the help of our solutions.***

# 1 Worker guidance

**Stand-alone solution**

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Cross-system complete solution

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Processing line

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***We focus on the employee, automate and optimize processes using the most innovative technologies and years of experience.***

## BRING LIGHT INTO YOUR ASSEMBLY PROCESS

The automation of processes is increasingly coming to the fore with the term 'Industry 4.0'. Whether it's quality control, support for assembly operations with a variety of products or employee training, assistance systems are becoming increasingly important. However, large automation solutions are often too costly and unworkable because of too many variants or too small numbers of pieces.

That's why **ix-tech GmbH** has set itself the task of simply automating the assembly process with the help of an intelligent pick-by-light system – all at a fraction of the usual market price.

Our **work2light** technology is a compact, robust, flexible and modular system that is used in almost all production and assembly situations where material has to be removed manually from intermediate storage devices and correctly installed.

## HOW DOES IT WORK?

The basic solution can be implemented completely independently in your assembly process.

Our **ix.net** control module includes an integrated process control, which does not require any connection to an ERP system, PC, network or anything else. The **stand-alone solution** is controlled via a barcode navigation and can record up to 30 different assembly sequences. This process can contain up to 600 process steps.

Each storage compartment is fitted with a **pick2light** module with multicolour LED. The employee is thus guided completely light-controlled through the workflow. Confirmation or termination of a single work step is carried out with the help of a separate button or on the **pick2light** module itself.

All trained processes are always very easy and individually customizable. With our innovative solution you can display the removal and the refilling process, as well as introduce a 100% final inspection.

Your assembly process is optimized with low cost and effort and the quality standards are increased at the same time.



The **ix.net** control module stores & controls your assembly processes with simple barcode navigation. More hardware information on page 47.

## YOUR ADVANTAGES

- .....  
+ No connection to an ERP system, PC, network or other  
.....
- + High speed increase  
.....
- + Paperless handling of the assembly process  
.....
- + Simple operability  
.....
- + Slim, flexible system without expensive wearing parts  
.....
- + No long training times with frequently changing operating personnel, flexible personnel deployment or for multi-shift operation  
.....
- + Reduction of the error rate  
.....
- + Modular system structure - expandable at any time  
.....
- + Easy installation on existing assembly workstations  
.....



# 1 Worker guidance

Stand-alone solution


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**Cross-system complete solution**

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Processing line

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A photograph of a multi-tier industrial shelving system. The shelves are made of light gray metal. The top shelf holds several black plastic bins. The middle shelf holds several red plastic bins. The bottom shelf holds several red plastic bins, some of which have white labels with black barcodes. A small red laser light is visible on the middle shelf. The background is dark and out of focus.

***Functional, flexible and suitable for industrial use -  
we accompany you on your way to digitization.***

## CREATE PROCESS SAFETY WITH PICK-BY-LIGHT

In addition to the possibilities that **work2light** offers as a basic solution, you can connect **work2light PRO** as a **cross-system complete solution** directly to your ERP or warehouse management system. This gives you the opportunity to record work steps in real time in your database. In addition, you have the advantage of easily installing components such as a touch monitor for the output of information, torque screwdriver, a PLC control and all types of test systems.

Tailored and individual, we develop a concept based on your functional and technical specifications. Based on this, we use our hardware differently and design processes tailored to your needs.

The modular structure of software and hardware enables us to optimize your existing processes. And all this without the need to implement your own warehouse management software or to create double data maintenance.

Our ambition is to greatly increase process reliability while simultaneously accelerating processes through digitization.

## HOW DOES IT WORK?

The **work2light PRO** process control system guides the employee through the help of **pick2light** modules at each storage location. It also indicates assembly information on a central terminal, to sequentially lead the employee through any number of assembly processes.

Confirmation or termination of a single work step is done using the terminal or on the **pick2light** module itself. All required information is exchanged in real-time with the connected material flow or warehouse management system.

In this variant, the customer is free to train the processes within the **ix.light server** via an editor interface or with control barcodes. It is also possible to execute the processes on an order-related basis through direct or indirect communication with the ERP system, without causing double data maintenance.

With our innovative solution you can display the removal and the refilling process, as well as introduce a 100% final inspection.





## YOUR ADVANTAGES

- .....  
+ Reduction of the error rate  
.....
- .....  
+ High process speed  
.....
- .....  
+ Paperless handling of the assembly process  
.....
- .....  
+ Simple operability  
.....
- .....  
+ Slim, flexible system without expensive wearing parts  
.....
- .....  
+ No long training times with frequently changing operating personnel, flexible personnel deployment or for multi-shift operation  
.....
- .....  
+ Connection to an ERP system, PC, network or other needed  
.....
- .....  
+ Modular system structure - expandable at any time  
.....
- .....  
+ Easy installation on existing assembly workstations  
.....

# 1 Worker guidance

Stand-alone solution

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Cross-system complete solution

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**Processing line**

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Bitte montieren



OK

**Targeted, we make your  
concerns our own.**



## PROCESSING LINE

In the age of Industry 4.0, the demands on a digital enterprise are steadily becoming more dynamic, response times must be shorter and quality demands are constantly increasing. An MES system provides optimal support and becomes a key position in your business. It bundles all important information. Processes and procedures are coordinated with each other and interact seamlessly with each other – thus a production-supporting system becomes a data hub and generates optimal control.

A link is our **workline engine**, which offers a variety of uses. The **workline engine** supports and optimizes your line production. Its flexibility makes it customizable to meet your needs. Existing gaps in the manufacturing processes can thus be closed.

## HOW DOES IT WORK?

The **workline engine** enables you to optimize not only individual workstations but also processing lines. Whether assembly or production lines.

Our in-house developed software divides your production line into zones. Individual workspaces can be easily defined. Through an editor, you can easily take over the configuration of the line structure and the processing sequence. The line control is adjustable in different production modes (One-Piece-Flow, Batchmode etc.)

Orders can be prioritized, sorted and filtered, as well as a lot size per module variant can be defined. Existing ERP, testing and tool systems can be effortlessly integrated.

Each zone is individually equipped with **pick2light** modules, an automatic intervention control, terminal or similar. Thus, the employees are guided through the process by entering information on the input monitor and the **pick2light** modules at each storage location. By means of a light grid, the exact intervention can be checked and the withdrawal can be acknowledged without any further action.

It is also possible to process several orders in parallel and output the performance via an Andon board. Parts management and material management are also integrated in the **workline engine**.

Kanban processes can be mapped easily. As well as special part-storage, ejection option and recall in case of problems.

The **workline engine** is an innovative worker guidance for your processing line.



## YOUR ADVANTAGES

- .....  
+ Performance output for the better balancing of the line  
.....
- .....  
+ Line configuration possible on your own  
.....
- .....  
+ Worker guidance through different output systems (eg touch screen monitor)  
.....
- .....  
+ Full flexibility through zone configuration and mode selection  
.....
- .....  
+ Flexible connection to ERP systems as well as existing testing and tool systems  
.....
- .....  
+ Customer individuality through workflow system  
.....
- .....  
+ Modular expandable at any time  
.....

# 2 Industrial picking solution

Order-based picking in the supermarket

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Set picking in the supermarket

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***We accelerate your processes  
while reducing the error rate.***

## ORDER-BASED PICKING

The tasks change quickly. A higher level of service and faster order processing are required. Therefore, it is necessary to find the right level of automation for your own company. Due to the absolutely necessary increase in efficiency, **iX-tech GmbH** relies on the best possible design of the human machine interface, whereby the human being continues to be in the foreground of consideration. Between ever faster processes and constantly growing challenges, the optimization of picking processes is becoming increasingly important. **Order-based picking** has always been a high priority in intralogistics. Orders must be available just-in-time at the assembly area, order variances increase and the lot size decrease.

Through innovative pick-by-light technology, you optimize the process of **order-based picking** and your employees work efficiently, error-free and are relieved at the same time.

## HOW DOES IT WORK?

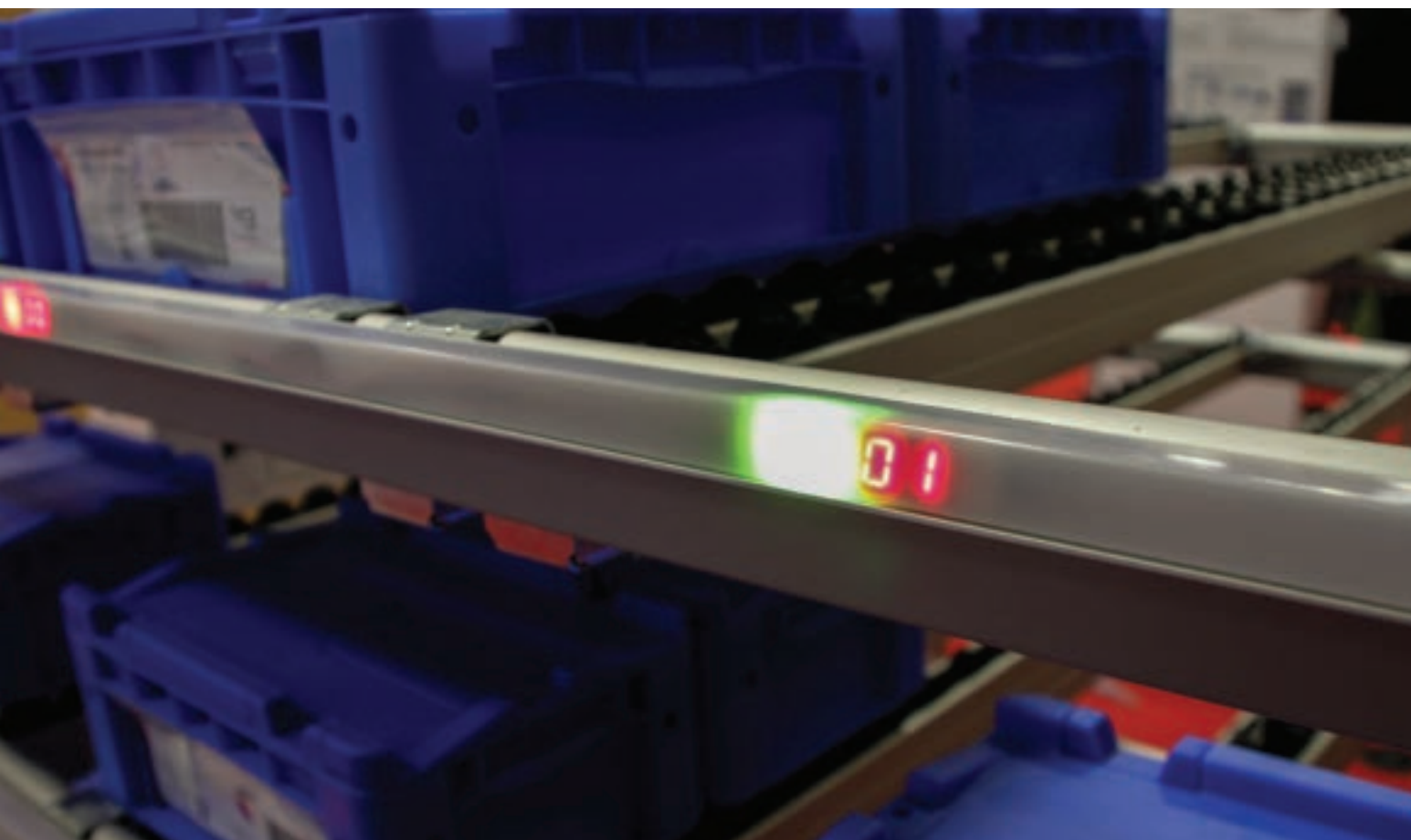
Within order-based picking, a distinction is made between single and multi-order picking. In both variants, picked items are assigned directly to a customer.

With single-order picking, the order picker goes for a specific order and picks the goods. This means that the order picker starts the order (for example via a confirmation on the terminal) and the **pick2light** modules at the storage locations sequentially direct him through the warehouse until he has picked the entire quantity for this order. With single-order picking, each employee is assigned only one order at a time. If the employee has completed the order picking and collected all the items for an order, he can provide them for assembly.

In the case of multi-order picking, the employee initially marries several orders with several storage bins on the accompanying trolley. This is done by means of a scanner and a simple confirmation on the pick2light modules. The employee scans the order barcode and the pick2light modules visualize all empty (not yet occupied) boxes on the trolley. Now the employee can freely choose which box is married to which order. If he has found a suitable place, he acknowledges this at the **pick2light** module. Now box and order are clearly assigned. This information is temporarily stored in the iX-tech system. If all orders are married to a box, the picking round starts, by scanning a control barcode for example.

The employee is guided sequentially through the warehouse using **pick2light** modules at each storage location. It is indicated to the employee on the trolley, in which box the removed article is to be put. The LED signal light on the **pick2light** module not only makes the compartment visible, but also the number of pieces with the aid of the alphanumeric display. This way, the picker is completely guided through the process until he has completely picked all the orders.

With **iX-tech**, you can freely design your processes that are tailored to your industry and your warehouse. This way, complex requirements are optimally designed and at the same time your employees are being supported.



## YOUR ADVANTAGES

- .....  
+ Articles no longer need to be resorted to orders  
.....
- + Small picking zones possible, resulting short distances  
.....
- + Time-saving handling  
.....
- + Transfer points are easy to organize  
.....
- + Orders can be provided just-in-time to the assembly area  
.....
- + Modular system design - expandable at any time  
.....
- + Easy installation on existing assembly workstations  
.....



## 2 Industry picking solution

Order-based picking in the supermarket

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**Set picking in the supermarket**

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***Turn the right set screws and  
lower your logistic costs with iX-tech.***



## USE THE POTENTIAL OF SET PICKING

Manufacturing companies often use picking to build sets to optimize manufacturing processes, as well as reduce material transports and process times.

**Set picking** always makes sense if a specific product or assembly is to be pre-sorted for assembly areas. But even with a large number of variable components with a high risk of confusion or with a saving in floor area, **set picking** offers a high potential for optimization

Pre-picking with the help of innovative pick-by-light technology ensures that the required sets are complete and error-free at the right time at the right assembly area.

## HOW DOES IT WORK?

Each storage bin in the picking zone is equipped with a **pick2light** module. This allows a faster and error-free removal during the process.

Furthermore, the pick-by-light technology is also mounted on the storage bins on the setup trolley. Thus, during the picking process, the employee will be informed of the compartment from which something can be taken and in which storage bin the removed component is to be deposited on the trolley.

It is possible to install the pick-by-light technology directly on the trolley or the modules on a frame. If you opt for the frame solution, it can be docked to an existing trolley each time it is executed.

Each trolley is initially married to a job. For example, by scanning an order barcode or confirming on a terminal, the picking process is started. The employee is guided sequentially through the process and, in addition to the LED visualization of the storage location to be approached, also receives the number of items to be withdrawn. Through to an infrared touch sensor on the **pick-2light** module, the employee can easily confirm each removal and always has his hands free to remove the respective components.

If the assembly has been completely pre-commissioned, the assembly set can be transported just-in-time to the appropriate area. This ensures that production can continue at any time without interruption.





## YOUR ADVANTAGES

- .....  
+ Time savings in the further processing of parts  
.....
- + Lower idle times during the assembly  
.....
- + Time-saving handling  
.....
- + Avoiding transport costs  
.....
- + Reduced storage costs  
.....
- + Preventing production bottlenecks  
.....
- + Availability of critical components / parts  
.....
- + Modular system structure - expandable at any time  
.....
- + Easy installation on existing assembly workstations  
.....



# 3 Mail order picking solution

Single-level picking

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Multi-level picking


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Sequential Zone picking

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Other mail order solutions

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***Our credo: The right goods at the right time  
in the right place.***

## THE ORDER-BASED PICKING

**iX-tech GmbH** creates tailor-made concepts for efficient warehousing in the mail order business. We put your order picking in the foreground. This not only represents one of the most important processes in logistics – but is often also the most expensive area. The demands on assortment, variety, the shop itself and, of course, the delivery time are constantly increasing. Therefore, it is important to select and analyze the best picking strategy based on various parameters.

The **order-based picking** combines the picking of goods, as well as the sorting on different customer orders in one. The strategy proves itself especially for larger, daily incoming orders. Thus, picklists can be generated at regular intervals and the orders processed simultaneously.

## HOW DOES IT WORK?

**Order-based picking** (also called rolling order picking) means that single order-based boxes are packed. These boxes are located on a picking trolley, which the employee carries with him during processing.

Each storage space of trolleys and shelves is equipped with pick-by-light technology. Custom-tailored the order and box on the trolley, are getting married by the employee with the help of the ERP system or **iX-tech system**.

Then the employee is routed through the warehouse in a route-optimized manner. The respective storage bin to be approached is visualized by means of the LED eye-catching light in the **pick2light** module with a predefined color.

Afterwards the employee will be shown on the trolley with the aid of the **pick2light** modules in which box the removed item is to be inserted. The alphanumeric display also indicates the number of pieces. With the help of an entrained MDE device, the process can be acknowledged on the backhand scanner, ix.mate or on the module itself for example. The employee thus has both hands free to remove the goods.

This way, all articles are picked and the employee is led sequentially through the process.

If all orders are picked in boxes, they can be brought directly to the packing station. A further division at the sorting station is completely eliminated.





## YOUR ADVANTAGES

- + Saves a lot of time: During order picking, the process step "sorting" at the sorting station is saved. This means that the goods are only taken "once in a hand" instead of twice. The complete order is ready for shipment after picking and can be brought to the packing station immediately
- + Large space savings: no need for stationary sorting stations
- + Convenient interface to numerous merchandise management and ERP systems available
- + Error reduction: due to the omitted process step, the error rate is minimized
- + Wireless work via our WIFI solution
- + Slim, flexible system without expensive wear parts
- + Quick location of the storage bins
- + Can be combined with MDE devices and scanner systems



# 3 Mail order picking solution

Single-level picking

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**Multi-level picking**

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Sequential Zone picking

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Other mail order solutions

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***We guarantee intuitive systems that require little training and allow the operator to keep his hands free.***

## TWO-STEP PICKING

Before the customer places an order in your shop, processes must be planned and decisions made in the warehouse. The orders should arrive as fast as possible, with a short delivery time at the customer. In times of same-day delivery, the online shopper now expects his package at the latest the following day. In order to increase customer satisfaction and reduce the returns rate, the right picking process is essential for every warehouse.

Every company in the mail-order business has different processes in logistics due to size, assortment or different ERP-systems. For example, small businesses that manage in- and out-going goods and picking with one or two people need a different approach than companies with large picking teams of several hundred people.

**ix-tech GmbH** uses specific software and hardware components to achieve the best possible result for you. But we also support you in the search for the right strategy. The **two-step picking** (collective picking) is suitable to generate shorter distances and lead times, for example.

## HOW DOES IT WORK?

### STEP 1:

The picking area and the sorting station are equipped with pick-by-light technology. This means that a **pick2light** module will be installed at each storage location. The order picker starts the order e.g. by scanning the pick list barcode or by selecting it on the **ix.mate** (MDE device) and then the first storage bin to reach, lights up. The employee receives the quantity to be withdrawn on the **ix.mate** as well as the customer-specific photo of the article, article number, etc. The removal is acknowledged by a touch on the display or by scanning the item barcode. If the removal has been confirmed, the employee can place the article in the picking trolley and the next storage place to reach, lights up. Like this, the employee is sequentially led through the whole process until he has picked the entire products.

### STEP 2:

To assign the picked goods to the correct orders, the employee starts the process at the sorting station. Here he can scan an article and the installed **pick2light** module lights up under the corresponding order box. Thus, the employee can completely divide his picked goods until the trolley is empty and his order boxes are filled. The boxes are now packed, ready for dispatch and can be sent to the packing station.

With a 1-item order, the second process step is completely dropped and the employee can bring his filled picking trolley directly to the packing station. For larger order picking areas, it may be useful to split the warehouse into different zones to shorten running distances.

Several employees can pick at the same time also. Here, each employee is assigned a unique picking color.





## YOUR ADVANTAGES

- .....  
+ Significant shortening of distances  
.....
- + Short training times even for unskilled workers  
.....
- + Paperless picking  
.....
- + Any number of pickers at the same time  
.....
- + Cheap interface to numerous merchandise management and ERP systems available  
.....
- + Slim, flexible system without expensive wear parts  
.....
- + Increases throughput and operator performance  
.....
- + Wireless work via our WIFI solution  
.....



# 3 Mail order picking solution

Single-level picking

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Multi-level picking

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**Sequential Zone picking**

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Other mail order solutions

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***We accelerate your processes while reducing the error rate.***



## SEQUENTIAL ZONE PICKING IN THE MAIL-ORDER BUSINESS

In order to accelerate order picking and reduce the error rate, we use our hardware and software components individually tailored to your strategy. The sequential zone principle, for example, always makes sense when fast-movers are to be processed with an extreme throughput.

With the sequential zone every „zone“ (workplace) is equipped with our **pick2light** hardware. With our **iX-tech** software, individual „zones“ can be defined and conveniently organized and expanded via the configuration.

### HOW DOES IT WORK?

There are several zones in a picking area. The order is transported from zone to zone. In each area, the respective employee gets visualized the work steps through **pick2light** modules at the respective withdrawal box and possibly on a terminal. The iX-tech software communicates with your ERP or warehouse management system and maps the process with the help of the attached hardware.

It is very important to be able to clearly identify each order with the Sequential Zone picking. The color change depending on the job also allows your staff to work safely and simply follow the sequence. The respective order picker is always close to the removal point, so that long travel times are eliminated. Due to the significantly reduced travel times, the picking performance can be increased exponentially.

Buffer stocks can be set up between the individual zones to compensate for different picking times in the individual zones. This way you can work on several orders in parallel and avoid long waiting times. The **iX-tech** software gives you a very dynamic way of working. This means that the zone configurator allows you to customize the number and size of each zone. With the help of the zone dependency, the individual zones are informed at any time about the current status of the other zones. It is also easy to switch to different modes, for example, from the batch mode to a special customer mode.

The **iX-tech** software and hardware components enable you to optimize your picking strategy in order to reduce the error rate and thus the return rate and to increase the efficiency of the employees.





## YOUR ADVANTAGES

- + Long travel times are eliminated -> picking rates increased exponentially
- + Zones can be scaled randomly
- + Optional connection of hardware components like scanner, terminal, intervention control etc.
- + Easy change to different modes
- + Buffer stocks can be set up to compensate for picking times



# 3 Mail order picking solution

Single-level picking

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Multi-level picking

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Sequential Zone picking

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**Other mail order solutions**

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## SORT2LIGHT

Mail order companies have to adjust to ever shorter delivery times, smaller batch sizes and higher shipment volumes. In order to be able to react quickly, work processes are simple, flexible and quick to design.

The combination of our **pick2light** hardware with intelligent **ix-tech** software enables you to have the best possible sorting process.

Every sorting error leads to disruptions in the logistics process chain and thus to a reduction in customer satisfaction. Therefore, we pay particular attention to the safety in this process step.

## HOW DOES IT WORK?

All boxes in the sorting area (also called ScanIn station) are equipped with **pick2light** hardware. This means that the **pick2light** modules are not mounted at the withdrawal storage location but at the target storage location.

With the help of an interface to your ERP or warehouse management system, each order is clearly assigned to a box. On request, the assignment can also be implemented manually by an employee.

In order to assign the picked goods to the correct orders, the employee starts the process by using an MDE device (**ix.mate**) or similar.

Now he can scan an article and the **pick2light** module lights up under the corresponding order box. If the employee scans the next article, he will automatically acknowledge the previous step and the next order box will be visualized. In real time, the acknowledgment of the 'Puts' is forwarded to your leading system.

That way, the employee can completely divide his picked goods until the order boxes are filled. After completing the sorting process, all orders are packed ready and can be routed directly into the packing and shipping process.

## YOUR ADVANTAGES

- .....  
+ Error rate drops  
.....
- .....  
+ Pack and Put process are decoupled and can be processed at different speeds  
.....
- .....  
+ Any number of employees can sort picked goods at the same time  
.....
- .....  
+ Cheap interface to numerous merchandise management and ERP systems available  
.....
- .....  
+ Slim, flexible system without expensive wear parts  
.....



## SORT2LIGHT FLEX

In addition to optimizing picking processes, our innovative technology can also make your sorting process more effective. Instead of the pick-up compartment, target locations are equipped with **pick2light** modules.

For example, **Sort2Light FLEX** is used when allocating pre-picked goods to the respective order / destination (2-step picking). Pre-picked articles often have different volume sizes. Rigid sorting stations can often not meet the requirements and work processes are slowed down or even stopped by errors in the picking. With **sort2light FLEX** we want to equalize your processes and make them more flexible.

**Sort2Light FLEX** offers a solution for maximum throughput with an innovative frame construction and trolley. It has also a positive effect on the error rate, as well as clarification cases and return rate.



## HOW DOES IT WORK?

Each sorting station is equipped with a **sort2light FLEX** frame. This frame is firmly mounted in the sorting area. A Trolley is getting docked here with flexible dividers. By scanning the trolley ID, it will be clearly recognized and transmitted to the **iX-tech** system.

Horizontal tight gridded **pick2light** stripes are mounted on the frame. In addition, the rear side is provided with sensors. Now, when a trolley is getting docked, the respective compartment separator and thus the storage space is detected by means of special sensors. If the compartment divider is moved, the correct **pick2light** module is automatically activated. Thus, your employee is free to adjust the storage space to the article volume. As a result, the optimal filling level of the station can be achieved.

To increase process speed, the employee can process up to three items at the same time. To do this, he scans the articles one after the other and is getting helped by the pick2light modules that show, in which compartment they should be sorted into. For the first article an LED lights up, for the second article two adjacent LEDs light up and for the third, three LEDs. After an individually adjustable period of time, the employee can again scan items to completely sort the pre-picked goods step by step. All informations are simultaneously transmitted to the merchandise management or warehouse management system.

Finished putted trolleys can be pushed into a buffer zone. A new trolley can be docked to the frame and the employee can continue to sort his pre-picked goods. Pack and put processes are thus decoupled and can thus be processed without waiting times and at different speeds.

## YOUR ADVANTAGES

- + Extremely fast response time (100ms max)
- + Central control unit supplies up to three frames
- + Reduces the return rate
- + Pack and Put process are decoupled
- + Highly accurate and dynamic evaluation of the position of the individual compartments
- + Reduces the error rate and clarification cases



## PACK2LIGHT

Target group-specific package inserts, accelerated packaging processes, targeted marketing measures – design the perfect workflow for your needs with **pack2light**.

Packing processes are becoming increasingly complex. They have to work flawlessly and be customized to customer requirements. Additions such as customs declaration, triple delivery note, advertising material or other personalization slow down the process enormously. By using **pack2light**, your orders are quickly prepared for shipping and are individually packed for each customer. Avoid errors with the help of the 100% final inspection and offer your customers added value in form of a coupon and generate additional income, for example.

## HOW DOES IT WORK?

The packager must make important decisions within a very short time, which determine the satisfaction of the customers. Which promotional item fits best with customer XY? Does the goods have to be packed separately? Which cardboard box is the most suitable? Even with a lot of previous knowledge and a long training period, mistakes happen here permanently. Our system solution **pack2light** controls the processes at the packing station and supplies the packer with all relevant information for each customer order.

Using a workflow system, the required informations are read in real time from sources such as the ERP, Shop, CRM or shipping system for example and outputted on a terminal. In addition, the integrated **pick2light** system guides the employee through the process. The workflow can be defined by you and is flexibly adaptable. After consultation, this will be realized individually and implemented on the **ix.light server**.

A training period for new employees takes less than a minute. This advantage is particularly important in the case of seasonal fluctuations or rapid growth. With a targeted approach to customers, you can not only increase your marketing success, but also evaluate it later. Our processes can be scaled as required and can therefore be controlled across all workplaces. They are programmed in script language and can also easily be adapted by you.

## YOUR ADVANTAGES

- .....
- + Increase in the conversion rate through customized package enclosures
- .....
- + Extremely short training time in the entire packaging process
- .....
- + 100% verification
- .....
- + Optimal tracking, logging and evaluation of marketing campaigns
- .....
- + Satisfied customers, because of individual and targeted approach
- .....





## PROCESS EXAMPLES FOR PICK2LIGHT :

- + If new customer, then attach a catalog
- + If order value exceeds X Euro, insert free article
- + If shipping to non-EU countries, then insert customs clearance
- + If high-quality items, check condition
- + If „Gift Package“ option is selected, then show items to pack
- + If shipping of hazardous materials, then display and observe general regulations
- + If new customer, then individual voucher impression at the packing station

# 4 Hardware

Pick2Light modules & accessories

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Control units

Page 47

Input and output devices

Page 48

Other input and output devices

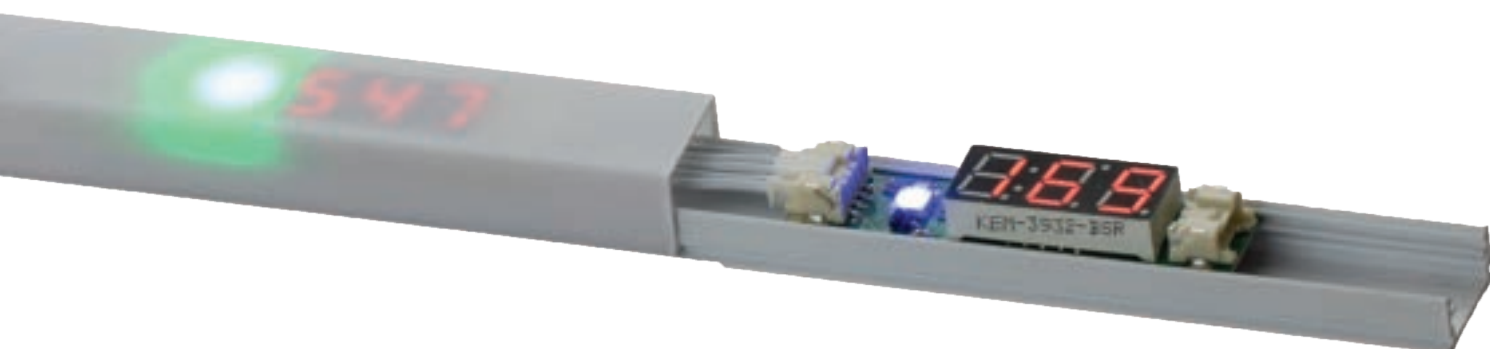
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Intervention monitoring systems

Page 51



**Pick2light** module, incl. high-power multicolor LED module unit. Suitable for picking solutions in the industry, for worker guidance systems or picking solutions in the mail order business.



**Pick2light** module, incl. high-power multicolor LED module unit with 3-digit 7-segment piece number display and wear-free infrared confirmation sensor. Suitable for picking solutions in the industry, for worker guidance systems or picking solutions in the mail order business.

Article no.	Item description	Description *
IX10361	S100-2000 2L Pick2Light-Module	Weight: 2g, operating voltage type: 12, protection class: III, IP00, 20x15x9 (mm), connectors: Vcc, SDA, SCL, GND
IX10362	S100-250 2L Pick2Light-Module	Weight: 2g, operating voltage type: 12, protection class: III, IP00, 20x15x9 (mm), connectors: Vcc, SDA, SCL, GND
IX10029	S1 1L Pick2Light-Module	Weight: 3g, operating voltage type: 12 VDC, protection class: III, IP00, 32x15x9 (mm), connectors: VCC, SDA, SCL, GND
IX10000	S2 1S1L3D-L Pick2Light-Module	Weight: 7g, operating voltage type: 12-24 VDC, protection class: III, IP00, 65x15x9 (mm), connectors: VCC, SDA, SCL, GND
IX10001	S2 1S1L3D-R Pick2Light-Module	Weight: 7g, operating voltage type: 12-24 VDC, protection class: III, IP00, 65x15x9 (mm), connectors: VCC, SDA, SCL, GND
IX10002	S1 Supply module	Weight: 4g, protection class: III, IP00, 60x15x7 (mm), connectors: VCC, SDA, SCL, GND
IX10051	S2 Supply module	Weight: 4g, protection class: III, IP00, 60x15x7 (mm), connectors: VCC, SDA, SCL, GND

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.



**S1** flat connection cable, suitable for **Pick2Light S1** series modules, available in various lengths.



**S2** flat connection cable, suitable for **Pick2Light S2** series modules in various lengths.



**S2** round connection cable suitable for **Pick2Light S2** series modules, available in various lengths.



Article No.	Item description	Article No.	Item description
IX10013	S1 connection cable flat 31mm	IX10003	S2 connecting cable round 250mm
IX10016	S1 connection cable flat 100mm	IX10004	S2 connecting cable round 500mm
IX10017	S1 connection cable flat 150mm	IX10005	S2 connecting cable round 1000mm
IX10018	S1 connection cable flat 200mm	IX10175	S2 connecting cable round 1500mm
IX10020	S1 connection cable flat 300mm	IX10049	S2 connecting cable flat 15mm
IX10021	S1 connection cable flat 350mm	IX10031	S2 connecting cable flat 50mm
IX10022	S1 connection cable flat 400mm	IX10032	S2 connecting cable flat 100mm
IX10023	S1 connection cable flat 500mm	IX10033	S2 connecting cable flat 150mm
IX10025	S1 connection cable flat 750mm	IX10114	S2 connecting cable flat 200mm
IX10026	S1 connection cable flat 1000mm	IX10034	S2 connecting cable flat 300mm
IX10027	S1 connection cable flat 1500mm	IX10177	S2 connecting cable flat 400mm
IX10028	S1 connection cable flat 2000mm	IX10035	S2 connecting cable flat 500mm
IX10296	Adapter module S1 to S2 bidirectional	IX10225	S2 connecting cable flat 750mm
IX10300	S1/S2 Pick2Light-duct end cover	IX10036	S2 connecting cable flat 1000mm
IX10179	S2 shelf connector pre-assembled 1500mm	IX10050	S2 connecting cable flat 1500mm
		IX10037	S2 connecting cable flat 2000mm

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.



Duct upper part suitable for **S1** and **S2** series.



Duct lower part suitable for **S1** and **S2** series.



Cable duct available in various lengths or individually cut to size. Max. Length: 2000mm.



**Aluminum U-profile.** Available in different lengths or individually cut to size. Max. Length: 2000mm. Particularly suitable in harsh environments under heavy use.



**Alu L-profile.** Available in different lengths or individually cut to size. Max. Length: 2000mm. As impact protection during intensive use.

Article no.	Item description	Description*
IX10007	S1/S2 Pick2Light-duct upper part 1100mm	Translucent cable duct
IX10008	S1/S2 Pick2Light-duct lower part 1100mm	-
IX10009	S1/S2 Pick2Light-duct upper part 1500mm	Translucent cable duct
IX10010	S1/S2 Pick2Light-duct lower part 1500mm	-
IX10011	S1/S2 Pick2Light-duct upper part 2000mm	Translucent cable duct
IX10012	S1/S2 Pick2Light-duct lower part 2000mm	-
IX10094	Aluminum L-profile thickness 1.5mm, 47x28 inner dimension, 1500mm	Impact protection during intensive use
IX10168	Aluminum L-profile thickness 1.5mm, 20x20 external dimensions, 2000mm	-
IX10337	Aluminum L-profile thickness 1,5mm, 47x28 inside dimension, 1000mm	-
IX10318	Aluminum L-profile thickness 3mm, 47x28 inner dimension, 2000mm	
IX10093	Aluminum U-profile thickness 3mm, 25x94x28, 1500mm	Extremely robust, especially for harsh industrial areas
IX10339	Aluminum U-profile thickness 3mm, 24x47x28, 1000mm	-
IX10340	Aluminum U-profile thickness 3mm, 24x47x28, 1450mm	-
IX10301	Aluminum U-profile thickness 2mm, 20x25x20, 2000mm	-

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.



**ix.net lite** control module for **S1** series. Particularly suitable in the picking warehouse with several hundred storage locations. The Pick2light modules are connected to the module in the form of a bus. Max. Number of **Pick-2light** modules on one LED bus: up to 3000 LED modules.



**ix.net** control module, suitable for **S1** and **S2** series. Particularly suitable for the worker guidance, for training and sequential processing of assembly steps later on. Barcode scanner and confirmation button can be connected. Can be used as integrated process control or with connection to an ERP system. Max. Number of **Pick2light** modules on one LED bus: up to 3000 (depending on the Pick2light series S1 or S2). Many more features are available.

Article no.	Item description	Description*
IX10109	ix.net control module S2	Weight: 142g, operating voltage: 12-24VDC, protection class: III, 90x69x30 (mm), connections: VCC, SDA, SCL, GND, Ethernet, RS232, 8 Extension Ports
IX10038	ix.net control module S1	Weight: 99g, operating voltage: 12 VDC, protection class III, 64 x 47 x 30 (mm), connections: VCC, SDA, SCL, GND, Ethernet
IX10095	ix.net wifi control module S2 incl. battery	Operating voltage: 12 VDC, 289 x 239 x 107 (mm), protection class III, connections: VCC, SDA, SCL, GND, Ethernet, RS232, 8 extension ports
IX10079	BUS system housing BG-123020-ST	Weight: 3,1kg, protection class I, 300 x 200 x 120 (mm), IP54, system housing for the ix.net control module
IX10238	BUS system housing BG-125030-ST	Weight: 3,1kg, protection class I, 500 x 300 x 120 (mm), IP54, system housing for the ix.net control module
IX10266	BUS system housing BG-124030-ST	Weight: 3,1kg, protection class I, 400 x 300 x 120 (mm), IP54, system housing for the ix.net control module

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.





**Honeywell ScanPal EDA50.** The **ix.mate** handset with our **ix-tech** software is ideally suited for various picking processes. For example, with functions such as storing, repositioning, inventory, paperless picking, etc.



**Winmate E430M2-3B2.** Another **ix.mate** handset with various functions such as: storing, repositioning, inventory, paperless picking, etc.

Article no.	Item description	Description*
IX10138	Honeywell ScanPal EDA50	Handheld with 2D imager, display size: 5 ", IP54, USB, BT, WiFi, NFC, Android 4.4, weight: 270g, 153 x 78 x 18 (mm)
IX10131	Winmate E430M2-3B1L	Handheld device with 1D imager, display size: 4.3 ", IP67, WiFi, Android 4.1, weight: 220g, 132 x 82 x 21.5 (mm)
IX10132	Winmate E430M2-3B2	Handheld with 2D imager, display size: 4.3 ", IP67, WiFi, Android 4.1, weight: 220g, 132 x 82 x 21.5 (mm)
IX10137	Winmate E430RM4-3BM	Handheld with 2D imager, display size: 4.3 ", IP65, WiFi, Android 4.2, weight: 260g, 132 x 82 x 25 (mm), removable battery

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.



**Newland HR3290-CS.** Light-weight 2D radio scanner incl. Cradle. Especially suitable for worker guidance systems in the industry.



**Honeywell MS 5145 Eclipse RS232.** Low-cost, wired scanner, particularly suitable for a stand-alone solution.



**Honeywell scanner Xenon 1900.** Provides superior performance in barcode scanning and digital image capture.



**Koamtac KDC200iM 1D Laser BT Scanner.** Is suitable for e.g. for storage processes. Allows working with hands free. Related glove available in different sizes.



**Zebra RS6000.** Ring scanner, captures barcodes quickly and reliably even at a larger reading distance. The use as a ring leaves both hands free.

Article no.	Item description	Description*
IX10090	Honeywell Xenon 1900	Barcode Scanner with 2D Imager, IP41, communication: cable, connection: USB, reader reach: instinctive (0-30cm), weight: 147g, 104 x 71 x 160 (mm), black
IX10107	Honeywell Scanner MS 5145 Eclipse RS232, black	Barcode scanner with 1D imager, communication: cable, connection: serial, reading distance: instinctive (0-30cm), Weight 97g, 63 x 35 x 169 (mm), black
IX10040	Newland HR3290-CS 2D, Imager, Wireless, USB Kit	Barcode scanner with 1D and 2D imagers, IP54, communication: radio, radio range: 50m, connection: multi-interface, read range: distance (0-100cm), weight: 252 g, 113 x 73 x 159 mm, incl. Cradle, black
IX10292	Zebra Ringscanner RS6000, BT, 2D, SR, BT	Barcode scanner with 2D Imager, bluetooth, IP65, reading distance: distance (0-100cm), 54 x 74 x 33 mm (WxDxH), weight: 183 g, black/gray
IX10169	Koamtac KDC200iM 1D Laser BT Scanner	Barcode scanner with 1D imager, bluetooth, IP42, connections: USB, reading distance: instinctive (0-30cm), wireless range: 10 meters, 35 x 62 x 15 mm (WxDxH), weight: 34 g, black, associated glove „FingerTrigger“ in different sizes available

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.

# OTHER INPUT AND OUTPUT DEVICES



**iiyama Pro Lite T1931SR-B5.** Is suitable to visualize assembly processes in the industry for example.



**Label printer Zebra LP 2824 Plus.** Desktop thermal printer. Especially suitable for the **pack2light** solution.



**Werma signal tower** with three optical stages: green, yellow, red. Many uses, especially in industrial use.



**Werma multi-tone siren.** For example, as a warning signal in the event of a mishandling.

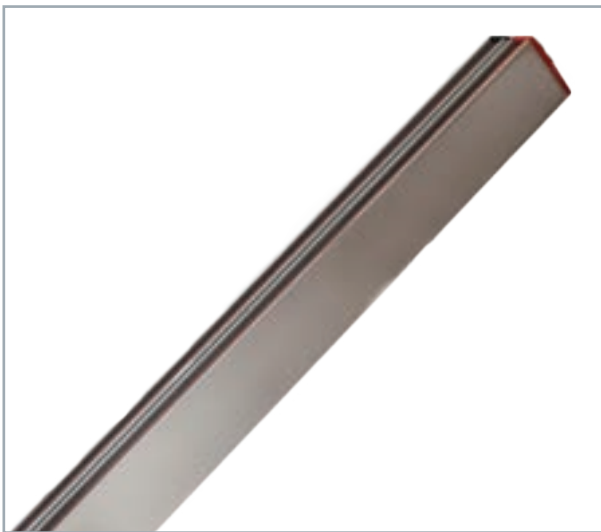


**Confirmation button for ix.net.** Input device, as a „cancel“ button for worker guidance systems, for example.

Article no.	Item description	Description*
IX10208	Confirmation button for ix.net	Yellow button, IP67, IP69K, function: Off (on), AC Contact voltage: 500V, DC contact voltage: 220V
IX10166	Label printer Zebra LP 2824 Plus	Print density: 203 dpi, connections: USB, Ethernet, grid connection, weight: 1.2 kg, approx. 11 x 22 x 17 cm (WxDxH), max. roll width: 60mm
IX10325	iiyama Pro Lite 17" Touchdisplay TFT T1731SR-B5	17", resolution: 1280x1024, black / matt, IP54, touch method: pen, finger, glove, connections: VGA, HDMI, DisplayPort, HDCP, power: AC 100 - 240V, 50 / 60Hz, dimensions: 387 x 342 x 201 mm, (WxDxH), weight: 5.8kg
IX10326	iiyama Pro Lite 19" Touchdisplay TFT T1931SR-B5	19", resolution: 1280 x 1024, black / matt, IP54, touch method: pen, finger, glove, connections: VGA, HDMI, DisplayPort, HDCP, power: AC AC - AC V, AC / V, AC Hz, dimensions: 432 x 390 x 218 mm, (WxDxH), weight: 6,6kg
IX10354	Multi-tone siren WM 4 tones 12-24VDC GY	Volume: 100 -105 dB (A) / 1m, life: min. 1,000 h, current consumption: 80mA, 4 tones, IP33
IX10353	Signal tower K37 Cable EM 12VAC / DC GN / YE / RD	Light source: LED, service life: max. 50,000 h, voltage range: 12 V, 24 V, connection: cable 2m, IP65
IX10207	Moxa ioLogik E1212 Remote Ethernet I/O 8DI+8D	Remote Ethernet I / O with 2-Port Ethernet switch, 8 DIs and 8 DIOs has two embedded Ethernet switch ports that allow the flow of information to another local Ethernet device or the series connection to the next ioLogic module

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.

Quality and reliability are very important to us, which is why we purchase our intervention monitoring sensors from our long-time partner **DuoMetric**. There are many uses for our intervention monitoring with the **iX-tech** software. Particularly at assembly stations in the industry or in processing lines, the removal or refilling can be checked or processes can be supported. Find out more about our partner DuoMetric on page 66.



Light curtains bar; available in different units.



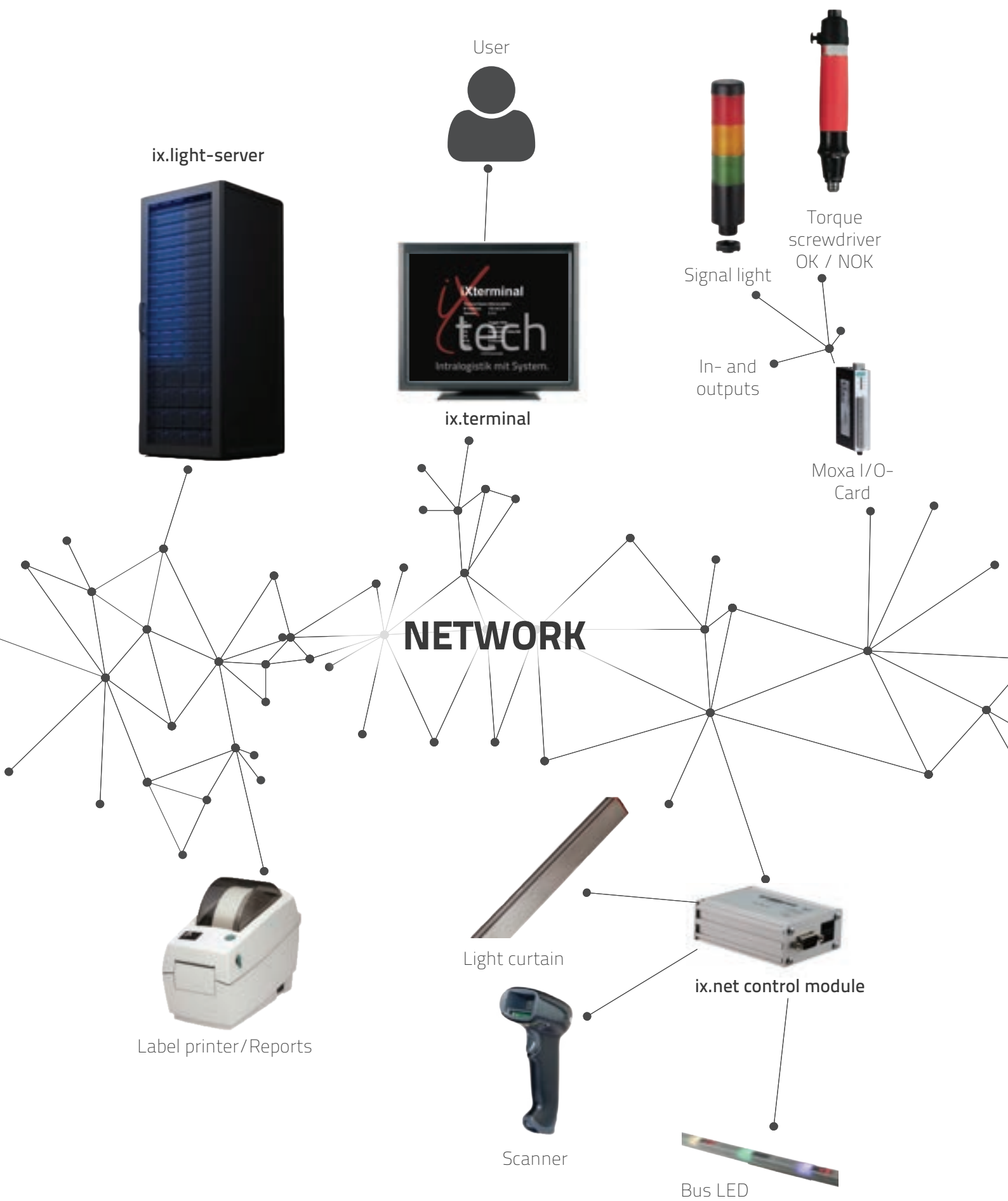
LVX-evaluator

Article no.	Item description	Description*
IX10186	DUOmetric bar pair LI20 / 25-540Q-ZEN	Housing: aluminum, natural anodized, plastic film; dark red, connections: Cable 4 m, light source: Infrared; 880 nm, range approx. 0.25 ... 6 m (adjustment via evaluator), protection class IP54 (optional IP65), indoor and outdoor, pitch: 2.5 / 5/10 / 12.5 / 25/46/50/75 / 100 mm, various designs / dimensions available
IX10185	DUOmetric analyzer type LVX for two pairs of bars	Housing: type DIN rail module, weight 230g, dimensions 161x126x60 mm (LxWxH), protection class IP00, indoor use, number of bars: max. 2 (A and B), type LI, max. number of beams: 500 beams (diagonal beams are counted), 600 beams with special SW, cycle time from approx. 30µs / beam, depending on range and parameterization, range with standard strips 0.25 ... 6.0 m, operating voltage 24 Vdc (18 ... 30 Vdc) with 5% ripple, power consumption 4.6 W, serial communication 9-pin D-sub female connector, LVX 24 Vdc, 12 mA, 3 kHz, LVX 24 Vdc, 0.25 A, PNP, short-circuit proof outputs, ALI short-circuit proof : an exit permanently

\* Further technical data, installation requirements and terms and conditions are available on request. Additional accessories or other units of measure can also be requested.



# EXAMPLE OF CONNECTION POSSIBILITIES



# 5 From experience

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3 MAIL-ORDER PICKING SOLUTIONS

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### THE COMPANY :

As a logistics service provider, **VDS** has specifically tailored its fulfillment solutions for **ecommerce** retailers. Seasonal scales can be easily intercepted and make fast growth possible.

Through proven and tested standard interfaces to many shop systems, VDS can guarantee easy and fast integration. Standardly, customers send 50,200 or over 1,000 orders per day. For major customers, more than **12,000** parcels must be processed within 24 hours during peak periods.



### THE CHALLENGE

With already disproportionate growth, the Fulfiller VDS should move into a new warehouse in time for the fourth quarter. With additional complication, that several times a year the output had to be repeatedly increased by factors of between five and ten times.

Due to the seasonal business, VDS was repeatedly confronted with the challenge of introducing more than 100 temporary workers into the processes in the company within a very short time. These should be able to handle incoming goods, storage, picking and shipping **intuitively** and **without errors**. At the packing station, different shipping documents and supplements have to be added per shipping country and automatically different carriers, carton sizes and weights have to be specified.

Over the years, existing processes have been continually improved by VDS and optimized in every detail. In the end, however, came the realization that without additional technical assistance, the performance could not be increased. Disproportionate growth would have only been possible through disproportionately more staff.

In the run-up to the extensive cooperation, there was already profitable exchange with VDS on intralogistics processes. The **trust** that grew on this basis allowed a quick decision in the end.

There were only 3 months between the conclusion of the contract and commissioning.

## THE SOLUTION

In a project **period of three months**, more than **12,000 storage** bins were equipped with pick-by-light modules. Over **1,000 Scan-In boxes** (sorting area) prepared for shipping and **25 packing stations** individualized. The error rate in picking was reduced to zero through the use of tablets with images and the LED control. However, unavoidable human errors are detected at the scan-in or noticed at the latest during the control scan in the shipping process. All individual improvements have led to an overall increase in **productivity** of up to **25%** depending on the season. Taking into account the low error rate and the shortened training time of temporary workers, the cost reduction has led to an amortization of the investment in only **48 months**.

The use of **pack2light** not only opened up new possibilities for VDS. In particular, the customers of the fulfiller appreciate the possibility very much for their individual marketing. In this way, tailor-made marketing activities such as supplements and printouts can be implemented for each individual customer.



## CONCLUSION

***„We are still happy and satisfied and especially appreciate:***

- + Partnership at eye level
- + Accelerated and reduced-error picking
- + Paperless multi-order picking
- + Time-saving scan-in processes
- + Individual packing processes
- + Resource saving central shipout
- + Intuitive goods receipt processes
- + Secured entry and transfer processes
- + Short amortization phase
- + Fast training of new employees

*Even after installation, we benefit permanently from new updates and improvements. Many work-flows have been further improved. In the future, we will return to the services of iX-tech GmbH for upcoming conversions and extensions.“*

–Martin Weckwerth, Head of eCommerce & Fulfillment, Shipping and Data Service



### THE COMPANY :

HelloFresh is the world's largest recipe food delivery service, offering consumers "cooking boxes". The cooking boxes contain prepared ingredients, as well as a matching recipe and are available by subscription.

HelloFresh sends millions of meals a month to as many as 1.84 million active subscribers in 11 countries (Germany, USA, UK, Netherlands, Belgium, Austria, Australia, New Zealand, Switzerland, Luxembourg, Canada).



### THE CHALLENGE

The challenge was simply obvious: How can the food be shipped even fresher and with better quality? Always with regard to accelerated picking processes, as well as **shorter delivery** times

The efficiency of picking should improve, but the picking accuracy should be maintained in order not to reduce customer satisfaction - on the contrary, to increase it. For HelloFresh, the key to satisfied customers, and thus the focus of attention, was always clear: How do we make sure orders can be shipped on time and **100% accurate**?

With the help of software and hardware components, the picking process should be optimized. At refrigerator temperatures in the picking area, the required system needed to be **robust, solid** and able to withstand large and heavy loads.

## THE SOLUTION

Over a project period of 2.5 years, 25 production lines were equipped with an individual **pick-by-light and software solution from iX-tech** in 5 locations.

In the meantime, this solution is actively in operation in 4 countries.

With our pick-by-light solution, they managed to halve their error rate in no time, with **efficiency** also improving by **25%**. This resulted in an overall better order fulfillment and generated an increase of the customer base across the entire market.

During ongoing operation, small adjustments are constantly made to **optimize the process** down to the last detail. **Together** as partners on equal terms we work together constantly and implement requests and ideas of the customer.



## CONCLUSION

„We are definitely an experimenting company and not every experiment is going according to the plan or achieving the intended result.

With iX-tech we have found a partner who supports us in all matters until we have found a satisfactory solution.

**iX-tech** offers an adaptable solution that meets the conditions and needs of a constantly changing business.

A standardized setup that works for all markets with a highly responsive support team that is always available, regardless of time zone.

No idea or request has ever been rejected and an exciting potential for the future in our international production environments is emerging.“

– Rachel Newland, International Operations Technology Manager, HelloFresh Global

***Whether in logistics or in production - we develop tailor-made solutions for the complete warehouse.***



# 6 References

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# WE GROW WITH OUR CUSTOMERS.

 **zalando**



**Rexroth**  
Bosch Group



**merkur**  
LOGISTICS

**Sortimo**

**eppendorf**



 **FRESENIUS**

**SEW**  
EURODRIVE

 **RHENUS**  
LOGISTICS

**HYDAC**

 **VDS**  
VERSAND- UND DATENSERVICE

**gemalto**  
security to be free



 **EUROCOPTER**

**ABB**

**ZK** *simply genius*



**PARSA**

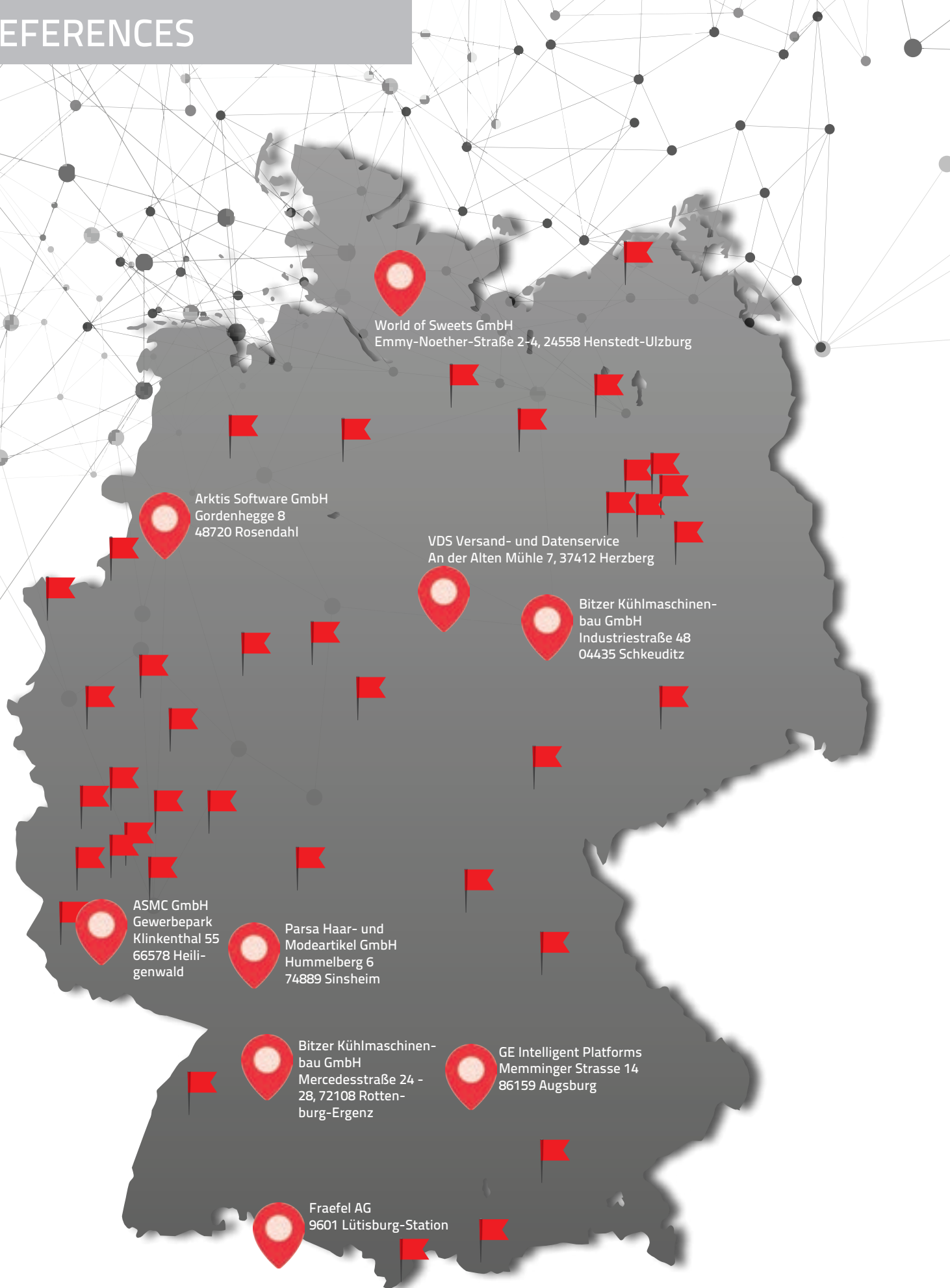
**AVENTICS**

**Steelcase**

# 6 REFERENCES



# 6 REFERENCES



**REAL COMPANIES - REAL SUCCESSES!**

**WE LET ACTIVITIES SPEAK AND GIVE YOU THE  
OPPORTUNITY TO VISIT OUR REFERENCE  
CUSTOMERS!**

**COOPERATION AT EYE HEIGHT IS DECISIVE  
FOR THE SUCCESS OF A PROJECT.  
BROWSE THROUGH A SELECTION OF  
INTERNATIONAL INDUSTRIAL AND ECOMMERCE  
CUSTOMERS, FULLFILLERS OR  
LOGISTICS CENTERS AND CONVINCE YOURSELF  
ABOUT OUR SOLUTIONS - LIVE IN USE.**





THE ROOTS IN THE SAARLAND – AT HOME IN THE WORLD.

NATIONAL AND INTERNATIONAL COMPANIES IN EUROPE, ASIA, AUSTRALIA AND NORTH AMERICA ARE CONVINCED OF OUR PRODUCTS AND SOLUTIONS.

THE SELECTION STANDS FOR OVER 250 SATISFIED CUSTOMERS AND IS OUR BEST REFERENCE.

# 7 Partners & Resellers

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### TOGETHER FOR YOU. OUR PARTNERS & RESELLERS.



DUOmetric has been a highly successful company in the field of measuring and control technology for more than 25 years. Development, production, sales and administration are all under one roof at our location in Graben near Augsburg. Our innovative strength and the exceptional commitment of our employees make us one of the technology leaders in our industry. Our focus is particularly on the customer-oriented development and production of high-quality light curtains and the associated control electronics.

**WE OFFER YOU:** DUOmetric light grid systems are characterized by their modular design and can thus reflect the diverse requirements of our customers regarding beam distance, monitoring range, mounting type, data interface and much more.

Contact: DUOmetric AG, Weberstraße 8, 86836 Graben, Germany, Phone: +49 (0) 8232-95979-21, Contact Person: Martin Winter, Mail: martin.winter@duometric.de, Website: [www.duometric.de](http://www.duometric.de)

## MiniTec

**THE ART OF SIMPLICITY**

Aluminum profiles and profile systems have become indispensable in industry, mechanical engineering and automation. On the basis of our construction system, consisting of the modular profile system construction kit and complementary linear technology, we realize sophisticated solutions for a wide range of tasks in all branches of industry. Founded in 1986, MiniTec has grown steadily from a miniature guide specialist into a leading technology company. Today, 400 experts at 12 locations around the world develop tailor-made solutions for our customers. More than 60 partners worldwide ensure reliable service and expert advice.

**WE OFFER YOU:**

- + manual and linked workstation systems
- + Material handling
- + Conveyor technology, fire service technology
- + Assembly and factory automation incl. Test systems and production lines

Contact: MiniTec GmbH & Co. KG, MiniTec Allee 1, 66901 Schönenberg-Kbg., Germany, Phone: +49 (0) 63 73/81 27-0, Mail: [info@minitec.de](mailto:info@minitec.de), Website: [www.minitec.com](http://www.minitec.com)



We offer individualized IT solutions and industry-related consulting services in the industrial environment. The focus is on the sustained increase in efficiency of the company and production processes. Our company was founded in the year 2000 and currently employs 21 permanent employees at the Lilienthal location, where the teams are interdisciplinary. Expertise that has grown over the years is available in the areas of industry, production, administration and logistics.

#### **WE OFFER YOU:**

Comprehensive and precise IT service, introduction of standard software and new technologies, conception and development of customized software and much more. Try us!

Contact: Kutzner Prozessoptimierung, Am neuen Damm 21, 28865 Lilienthal, Germany, Phone: +49 (0) 4298 46536-0, Mail: [info@kutzner-beratung.com](mailto:info@kutzner-beratung.com), Website: [www.kutzner-beratung.com](http://www.kutzner-beratung.com), Contact Person: Christian Kutzner

The logo for Descartes Systems (Germany) GmbH features the word "DESCARTES" in white, uppercase, sans-serif font, with a small white triangle pointing right after the 'S'. It is set against a solid blue rectangular background.

The logo for pixi features the word "pixi" in a bold, black, lowercase, sans-serif font. A small orange asterisk is positioned above the 'i'.

As a member of the Descartes Systems Group, Descartes Systems (Germany) GmbH is the leading manufacturer of merchandise management software and warehouse logistics solutions in e-commerce. With pixi \*, ecommerce and omnichannel vendors can automate their internal processes, easily scale in the season, and reduce costs from day one. Through our e-commerce experts, our extensive range of services as well as through a large network of partners and interface offerings, we support our customers in their growth strategy.

#### **WE OFFER YOU:**

Whether as a pureplayer, brand manufacturer, fulfiller or wholesaler in b2b:

- + Intelligent warehouse and logistics processes
- + Automation of order import, payment processing, picking and shipping
- + Returns management par excellence
- + Standard shop interfaces to shopware, OXID eSales, Magento and many more

Contact: Descartes Systems (Germany) GmbH, Walter-Gropius-Str. 15, 80807 München, Germany, Phone: +49 (0) 89 961 60 61- 71, Mail: [info@descartes.com](mailto:info@descartes.com), Website: [www.pixi.eu](http://www.pixi.eu)





JTL-Software-GmbH is a provider of innovative software for online trading. With more than 35,000 customers and over 300 partners in Germany, Austria and Switzerland, JTL Software is one of the leading manufacturers of e-commerce software in German-speaking countries. The company was founded in 2008 by Janusch Lisson and Thomas Lisson and employs over 150 people. The company is located in Hückelhoven, Heinsberg (North Rhine-Westphalia).

Other locations have been in Hürth (near Cologne) since 2012, in Halle (Saale) since 2016 and in Kassel since 2018.

### **WE OFFER YOU:**

The JTL-Wawi merchandise management with seamless eBay and Amazon connectivity through JTL eazyAuction. The directly connected shop system JTL-Shop and the JTL connectors to connect external shop systems. As well as the efficient JTL-WMS warehouse management system for mail-order business. All these offer excellent opportunities for successful trading in the Internet.

Contact: JTL-Software-GmbH, Leyboldstraße 14, 50354 Hürth, Germany, Phone: +49 (0) 221 988 302 25, Contact Person: Thomas Söhn, Mail: [thomas.soehn@jtl-software.com](mailto:thomas.soehn@jtl-software.com), Website: [www.jtl-software.com](http://www.jtl-software.com)



Innovative solutions for logistics systems - this is what Logitrade offers you based on years of experience. We have extensive experience in setting up workplaces and using transportation and storage systems. Also with measuring and weighing systems, the associated application consulting, and with application software. But what is very important in the business and in cooperation with iX-tech, the picking systems are in particular our solutions for Put2Light - Scan2Light - Pick by Light - Voice2Light in combination with our logistic software LogiAction.

### **WE OFFER YOU:**

Solutions that will help your business meet the latest requirements in terms of working conditions and efficiency. We do this quickly and at absolutely competitive prices. We make sure everything runs smoothly.

Contact: logitrade logistic systems b.v., Valeten 4 R, 5301 LW Zaltbommel, Niederlande, Phone: (+31) 418 662 410, Mail: [info@logitrade.nl](mailto:info@logitrade.nl), Website: [www.logitrade.nl](http://www.logitrade.nl)



Since 2001, GREYHOUND Software from Osnabrück has pursued one goal: to increase transparency and efficiency in the team in order to sustainably relieve employees. The product portfolio includes solutions that accelerate cross-departmental communication (GREYHOUND CRM), simplify company-wide paper chaos (GREYHOUND DMS), and perfect collaboration (GREYHOUND MAX). Solutions from digitalguru are currently used by more than 550 companies – primarily from the D-A-CH region – including well-known brands such as babymarkt.de, Tipp24.com, the sports and apparel retailer engelhorn and the Phantasialand.

#### WE OFFER YOU:

**GREYHOUND CRM:** The all-rounder for optimizing (customer) communication. There are over 30 add-ons available for connecting merchandise management or ERP systems. **GREYHOUND DMS:** a document and workflow management system with a connection to accounting solutions. **GREYHOUND MAX:** CRM & DMS united in one interface. This makes GREYHOUND an all-encompassing team platform that is available to all employees regardless of location.

Contact: GREYHOUND Software GmbH & Co. KG, Segelfliegerweg 53, 49324 Melle, Germany, Phone: +49 (0) 5415079900, Website: [www.greyhound-software.com](http://www.greyhound-software.com), Contact Person: Ulrich Pöhner



We are one of the leading software providers for the central control of commerce processes. Our self-developed SaaS application as a control center combines all the processes of modern trade in one system. The modular engine adapts exactly to existing systems and individual needs and extends the infrastructure with missing functions. The eF CommerceEngine takes full advantage of the sales channel's potential and takes its complexity from the cross channel business.

#### WE OFFER YOU:

- + Simplifies your eCommerce projects both internally and externally
- + Reduces the number of required systems
- + prepares your ERP system for eCommerce and ensures its release capability
- + Decouples your existing processes from the channel processes
- + Increases flexibility and agility
- + Realizes short time-to-market cycles
- + Increases the profitability of your eCommerce

Contact: eFulfilment Transaction Services GmbH, Wilhelm-bleyle-Str. 1, 71636 Ludwigsburg, Germany, Phone: + 49 (0) 7141 2422821, Contact Person: Martin Ötztürk, [Martin.Oeztuerk@efulfilment.de](mailto:Martin.Oeztuerk@efulfilment.de), Website: [www.efulfilment.de](http://www.efulfilment.de)



As a logistics service provider, VDS Fulfillment offers you solutions tailored specifically to eCommerce retailers. Seasonal scaling is intercepted, enabling fast growth. Through proven standard interfaces to many shop systems such as Shopware, Shopify, OXID eSales, Magento and others, a simple and fast integration is guaranteed. Whether you receive 50, 200 or more than 1,000 orders per day, VDS is the right choice for you. For our major customers, we ship more than 12,000 parcels within 24 hours at peak times.

### WE OFFER YOU:

By using pick-by-light systems and MDEs, all warehouse processes have been optimized in every detail. Programmable workflows at the packing stations customize your shipping processes and make them future-proof.

Contact: Versand- und DatenService, Matthias Bick e.K., An der Alten Mühle 7, 37412 Herzberg am Harz, Germany, Phone: +49 (0) 5521 855 370, Contact Person: Martin Weckwerth, Mail: [kontakt@vds-fulfillment.com](mailto:kontakt@vds-fulfillment.com), Website: [www.vds-fulfillment.com](http://www.vds-fulfillment.com)



Epoq internet services GmbH provides its customers with a unique software suite for online shop personalization. With tailor-made services based on artificial intelligence, epoq creates unique shopping experiences along the entire digital customer journey. Online shoppers receive guidance, advice and inspiration when shopping online. After purchase, the shop owner has the opportunity to connect with his customers and return them back to the online store.

### WE OFFER YOU:

The portfolio includes the epoq Search, the Guided Selling (epoq Advise), the Recommendation Engine (epoq Inspire) and the personalized e-mail (epoq Connect). The services are easy to integrate and modular as SaaS.

Contact: epoq internet services GmbH, Am Rüppurrer Schloß 1, D-76199 Karlsruhe, Phone: +49 (0) 721-89334-0, Contact Person: Daniela Ilincic, Mail: [marketing@epoq.de](mailto:marketing@epoq.de), Website: [www.epoq.de](http://www.epoq.de)



SundS ITS offers tailored IT & Web solutions and personal support. As an established trading service provider, we are happy to advise you professionally and competently in the area of warehousing and logistics. Whether it's your inventory, picking or shipping processes - we're there for you. Through our unique help desk system, you receive direct support from our dedicated supporters. Whether at your premises, by phone, online or at our premises - we'll show you how to optimally integrate the systems into your daily work routine.

#### **WE OFFER YOU:**

From online shop systems with inventory management and cash registers, warehouse management systems (eg: Pick2light), backup and security systems to the creation of your website: We ensure that you start successfully.

Contact: SundS ITS, Beselerstr. 2-6, 50354 Hürth, Germany, Phone: +49 (0) 2233-7064010, Mail: [info@sundsits.de](mailto:info@sundsits.de), Website: [www.sundsits.de](http://www.sundsits.de)



Utek's mission is to provide innovative solutions for production logistics. Our modular system allows you to organize the production according to the Kaizen and Lean Production principles. Utek systems are used for the realization of assembly lines, materials and handling systems, perfectly adaptable to every business need. Utek modular shelves for picking are storage solutions that are used to eliminate waste and worthless phases. These systems are made according to ergonomic principles that reduce the length of the lines and the stocks on the line, with a consequent increase in production efficiency with FiFo logic.

**WE OFFER YOU:** Innovation, commitment and continuous quality research characterize the Utek philosophy. Among its customers stand out the names of the most important Italian groups in the automotive sector, home appliance, mechanical, aeronautical, metallurgical and hydraulic. Utek will help you reduce the MUDA and turn your company into LEAN.

Contact: Utek srl, Via Luciano Lama, 8 - Villa Argine, 42023 Cadelbosco di Sopra, Italy, Phone: +39 0522 958945, Mail: [info@utekvision.com](mailto:info@utekvision.com), Website: [www.utekvision.com](http://www.utekvision.com)





Plentymarkets, an e-commerce ERP system, is eponymous for the company with its head office in Kassel and another location in London. The managing directors Jan Griesel and Bernhard Weiß invite each year to the online-merchants-congress, where you can exchange about news in the e-commerce and have personal contact with around 160 employees. Since 2001 plentymarkets has become an e-commerce complete system for more than 5000 online retailers: for the one man company, for the middle class, for the large enterprise.

### **WE OFFER YOU:**

An e-commerce ERP system that combines merchandise management with shop system and omni-channel sales incl. POS system, and whose functions and interfaces enable the automated implementation of online and offline commerce.

Contact: plentymarkets GmbH, Bürgermeister-Brunner-Straße 15, 34117 Kassel, Germany, Phone: +49 (0) 56198 681-100, Sales Contact: [sales@plentymarkets.com](mailto:sales@plentymarkets.com), Web: [www.plentymarkets.eu](http://www.plentymarkets.eu)

# 8 About us

1 WORKER GUIDANCE

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2 INDUSTRY ORDER PICKING

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3 MAIL-ORDER PICKING SOLUTIONS

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4 HARDWARE

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5 FROM EXPERIENCE

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6 REFERENCES

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7 PARTNER & RESELLER


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**8 ABOUT US**

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WE ACCOMPANY YOUR PROJECT FROM THE FIRST SECOND - IN ALL PROJECTS, THE CUSTOMER, WITH ITS SPECIAL REQUIREMENTS, IS IN THE CENTRE OF ATTENTION



WE IMPROVE STANDARD  
SOLUTIONS AND  
CUSTOMIZE YOUR PROCES-  
SES. OUR MOTTO IS:  
LISTENING,  
UNDERSTANDING,  
ACTING.





In 2009 iX-tech GmbH was founded in Saarbrücken. Today we are known throughout Europe as a manufacturer of cost-effective and innovative intralogistics solutions.

In the course of looking after a mail order company in Saarland, the first paperless picking solution was developed. The scan2light® system was a cost-effective variant of the previously known pick-by-light systems and formed the basis of our current business.

Over the past few years, the scan2light® system has been optimized and pioneered, significantly expanding our product portfolio. Today we are a medium-sized company and our compass is directed towards growth. Not only by increasing the number of employees and customers, but also in terms of physical space. Alongside Sales, Marketing and Support on 2000 m<sup>2</sup> of storage space and 140 m<sup>2</sup>, our own laboratory and test environment also found its place.

Our team consists of young and experienced employees from various fields. With a lot of tailwind and motivation, we create customized intralogistics solutions at a fraction of the usual market price.



# WE ARE HAPPY TO TAKE SOME TIME FOR YOU. CONTACT US.

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Intelligent intralogistic solutions

