




MARK

PROGLOVE

wearables for industry

READY FOR 4.0



ProGlove's smart glove MARK connects the worker to Industry 4.0. ProGlove's CEO Thomas Kircher explains our core vision:
"We believe that humans are still the most important part of Industry"

Whether you are working on the complex assembly steps of a major assembly line or picking small parts in a warehouse. In today's businesses every second counts when it comes to providing the highest levels of customer service while also ensuring agile and effective business processes. Thanks to the ergonomic MARK, which integrates a glove with a scanner on the back of your hand, ProGlove has replaced the traditional scanning pistol. This enables workers in production and logistics to work hands-free and thus faster, safer and more efficiently.

PROGLOVE

MARK

SYSTEM



Improved Ergonomics



Improved Process Quality and Time Savings



Adds Value to the bottom line

SPEED	ERGONOMICS	QUALITY	PLUG & PLAY
The elimination of non-value added process steps enables faster and more efficient work	Hands-free scanning enables ergonomic work	Optimized hand movements reduces mistakes and improves quality	Integration via USB HID interface or RS232 connection. Simple configuration on config.proglove.de

FEATURES

- ✓ Two component System: A work glove with an embedded trigger in the fabric and an intelligent scanner
- ✓ 1D and 2D variable barcode scanner
- ✓ Instant feedback (optical, acoustical and haptic)
- ✓ One charge lasts 8 to 10 hours
- ✓ Radio frequency range of over 30m



Use Cases

ProGlove replaces the traditional pistol scanner. Until now, using the traditional scanner costs the user a lot of time by having to pick up and put back the scanner. Be it 1D or 2D barcodes the ProGlove MARK scanner enables you to scan and work at the same time which creates more efficient logistic and manufacturing processes. The ProGlove MARK simplifies processes, eliminates process steps and reduces mistakes.



EXAMPLES FOR PRODUCTION

Assembly Lines

Pre-assembly, Final assembly ...

Material Handling

Just in Time, Kitting, Sequencing ...

Work Stations

Quality Control, Rework ...

KANBAN

Reordering, Milk Runs ...

EXAMPLES FOR LOGISTICS

Inbound

Receiving, Putting Away ...

Picking

Supermarkets, Small Parts Picking,
Automated Small Parts Storage ...

Material Transport

High Bay Pickers, Picking Carts ...

Outbound

Paletting, Packing, Shipping ...

BMW & PROGLOVE

More efficient, safer

The largest high bay warehouse for spare parts in all of BMW is located in Dingolfing, Munich. The ProGlove MARK scanner has been in use there since 2015. Since the introduction of the MARK scanner all of logistics team members are able to work far more efficiently, which impacts the entire facility.

- ✓ Saved 4 seconds per Scan
- ✓ Saved 4000 Minutes of scanning time per day for the entire facility



OTHER REFERENCES

FESTO *Tugger trains work far more efficiently*

REWE *Major reduction in picking errors*

MAHLE *Faster and more effective internal logistics*



KUKA



brose
Competence in Mechatronics



Hardware & Software

The ProGlove MARK system consists of hardware components, the configuration tool and wearables.



MARK

- ✓ Robust industrial grade 1D / 2D scanner
- ✓ 8-10h battery runtime
- ✓ 35g weight optimised
- ✓ IP54 protection class
- ✓ Haptic, acoustic and optical feedback



ACCESS POINT

- ✓ Connected via USB or RS232
- ✓ Frequency band of 868 MHz
- ✓ Safely transmits via chosen radio frequency channels



CONFIGURATION TOOL

- ✓ Easy configuration via the ProGlove website: config.proglove.de
- ✓ Quick prefix and suffix programming
- ✓ Online and offline access
- ✓ Easy configuration with mobile devices



CHARGING STATION

- ✓ Charging station for two MARK scanners
- ✓ 2 hour charge time

Wearables

STANDARD

Used in Logistics and Production



- ✓ For areas with lower-level protection requirements for gloves
- ✓ Small parts, high bay warehouse picking, tigger trains, etc.

Trigger

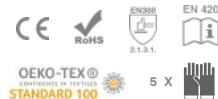
Textile trigger located on the side of the index finger. Clip left or right

Coating

Back of hand and back of fingers free of coating

Sizes

Industry standard sizes 7 - 10



5 X



PALM TRIGGER

Used in Logistics and Production



- ✓ Areas without risk of injury
- ✓ Workspaces with or without special glove requirements
- ✓ Wearable both with a free hand as well as in combination with different glove types

Trigger

Triggered in the palm of the hand by middle or ring finger

Sizes

Adjustable, variable sizes that can be made to fit with a velcro form fitting lock.



3 X



INDEX TRIGGER



Used in Logistics and Production

- ✓ Environments without risk of injury
- ✓ Workspaces with or without special glove requirements

Features

- ✓ Comfortable reinforced edges
- ✓ Ergonomic thumb and forefinger release

Trigger

Lateral release between thumb and forefinger

Sizes

S, M, L / variable
Customizable by industry
with velcro closure

FOR MORE INFO

🌐 www.proglove.com
✉ sales@proglove.com

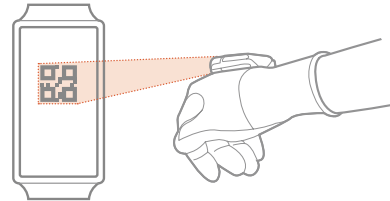


Data Transfer

- 1 The access point is connected to the PC or the workstation terminal through RS232 or USB. Pairing of the MARK scanner is done by simply scanning the 2D barcode on the access point. Multiple MARK scanners can be paired to a single access point.
- 2 The data transfer between the MARK scanner and the access point occurs via 868 MHz.
- 3 Information about the current process step is transferred directly to the hand by the MARK through optical, haptic and acoustic feedback. This enables the user to know instantly if any errors have occurred.

1 CONNECTION

Multiple MARK scanners can be paired to one access point

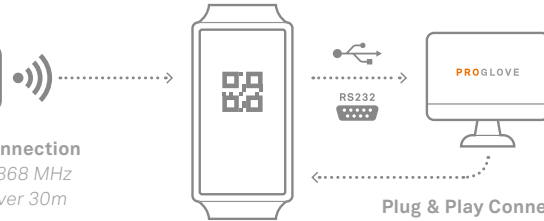


2 DATA TRANSFER



1D & 2D Barcodes
Datamatrix, Code128,
QR, EAN, Aztec...

Wireless Connection
Frequency 868 MHz
Range of over 30m



Plug & Play Connection
Connected to computer
terminals, PCs, tablets.

3 FEEDBACK

Optic, acoustic and haptic feedback
Enables instant mobile worker
feedback



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