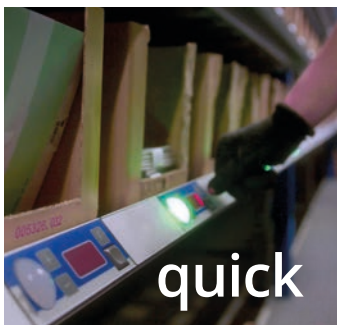




Making order picking more efficient

PickTerm *Flexible*



quick



reliable



flexible

Hardware

The most important features of the PickTerm Flexible PTF shelf display



Robust – stable aluminium casing

Our system is made of high quality material: the carrier profiles and casings made of aluminium ensure a long service life.

Multi-colour eye-catching lamp

Our eye-catching lamps displays in seven colours:



Dual LED



Oval light divided horizontally with 2x7 colour combinations, as directional function, or for enabling two or more order pickers to work in parallel.

Control keys

One or more membrane-covered control keys, freely definable via software.

Quantity correction

Two membrane-covered correction keys for quantity corrections or inventory transactions.

Address

Each display has its unique address in plain text and as a barcode, for clear allocation and product traceability.

Robust confirmation button

The especially robust confirmation button with an MTBF of 10 million picks ensures the durability of your system.

General design features

Height	50 mm (PTF) or 25 mm (PTF-S)
LED lamp	oval: 2X7 colours
Confirmation	Per acknowledgement button (MTBF 10 Mio. Picks) Per LTOUCH, QRS or TOUCH (PTF-S)
Control key	Freely definable membrane-covered key
Assembly	Clip technology with Snap-On system
Connection	Spring technology
Operating temp.	-30°C to +50°C (0°C to 50°C with certain shelf displays)

Snap-On System

The shelf displays can be fixed on the bus rail anywhere any time.



Options & Features



“Dual LED” –

2x7 colour combinations

The horizontally divided eye-catching lamp enables precise compartment allocation. It allows the upper and lower half, each with seven colours, to be separately controlled. This new design makes it possible to clearly indicate the retrieval position in the “upper” or “lower” part of the shelf display.

In addition, the 2x7 colour combination simplifies picking by two operators in the same zone. A further advantage: Special functions, such as return putaways or inventory processes, can be indicated even more clearly. If both halves of the lamp are lighted in the same color, it is even more visible even from a distance.

SOUND

The Sound option sends an acoustic confirmation or alarm signal which efficiently supports the picking process.

Improved confirmation through sensor technology

We offer our shelf displays with different optional sensors to enable completely wear-free pick confirmation during the picking process and accelerate the picking performance:

LTOUCH –

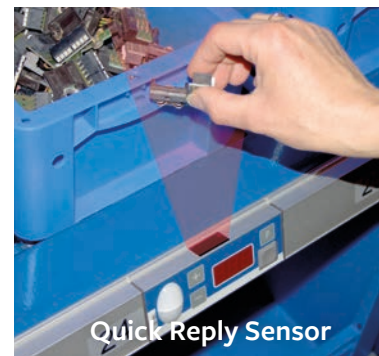
Pick confirmation through a light touch

The wear-free sensor integrated into the lamp replaces the mechanical confirmation button: Instead of pressing a button, picks are confirmed by lightly touching the lamp. This accelerates the picking performance.



QRS – For contact-free confirmation

Our QuickReply sensor system (QRS) simplifies confirmation and speeds up the picking process: A sensor which can be calibrated to point up or down replaces the mechanical confirmation button. Confirmation is made through a grasping movement above or below the display – contact-free, quickly and wear-free.



LED-POINTER – For additional bin illumination

Point-to-Pick: An LED pointer mounted below or above the shelf display enables targeted illumination of the target compartments. The illumination of the bins optimises visibility. This assists to reach into the right compartment and speeds up the removal or storage processes.

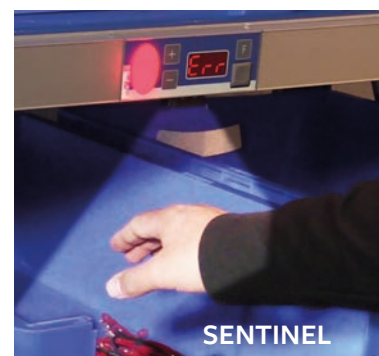


SENTINEL - Intervention monitoring

The Sentinel intervention sensor registers and signals the removal or deposit to prevent incorrect interventions.

External port

An optional external port on the shelf display can be used to connect peripheral devices such as push buttons, pull-wire switches, light barriers or KANBAN sensors, which opens up new options for application.



PTF Modules

without quantity display

PTF-L-4






H: 50 mm x W: 35 mm

For picks always requiring the quantity one and with very small warehouse compartment dimensions.



PTF-L-7





H: 50 mm x W: 43 mm

Options:  LTOUCH  QRS  SENTINEL
 SOUND  INPUT



PTF-L-6

H: 50 mm x W: 70 mm







Options:  LTOUCH  QRS  SENTINEL
 SOUND  INPUT



with numerical quantity display

PTF-3N-4

H: 50 mm x W: 130 mm

Options:  LTOUCH  QRS  SENTINEL
 SOUND  INPUT  LED-POINTER



PTF-3N-5

H: 145 mm x W: 50 mm

Options:  SOUND  LED-POINTER



PTF-4N-4

H: 50 mm x W: 170 mm

Options:  LTOUCH  QRS  SENTINEL
 SOUND  INPUT  LED-POINTER



PTF-6N-2

H: 50 mm x W: 212 mm

Options:  LTOUCH  QRS  SENTINEL
 SOUND  INPUT  LED-POINTER



with alphanumerical displays

PTF-4A-1

H: 50 mm x W: 170 mm

Options:  SOUND



PTF-6A-1

H: 50 mm x W: 212 mm

Options:  SOUND



PTF-12M-1

H: 50 mm x W: 256 mm

Shelf display with DOT matrix, moving text possible.






Options:  LTOUCH  QRS  SOUND  INPUT



PTF-OL-1

H: 50 mm x W: 145 mm

OLED graphic display (128x64 px) for optimum visibility from any viewing angle and multiline display.

Options:  LTOUCH  QRS  LED-POINTER
 SOUND  INPUT








PTF-EP-2

H: 50 mm x W: 145 mm

Electronic Paper Display (EPD).

Multi-line display, bar code display and QR code display.

Options:  LTOUCH  QRS  LED-POINTER
 SOUND  INPUT

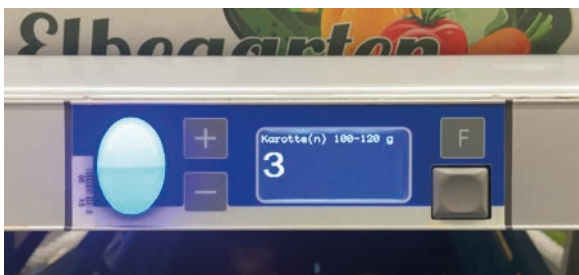
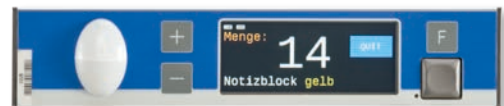


PTF-ZDISP

H: 50 mm x W: 224 mm

Zone display with LCD graphic colour display (320x120 px), with four freely definable soft keys, 2 x USB ports (e.g. scanner).

Options:  LTOUCH  QRS  SOUND  INPUT



Modules

■ with intervention monitoring

PTF-SENTINEL

H: 8 mm x W: 34,5 mm

Sentinel intervention sensor for withdrawal monitoring. Reliable detection and signaling of a withdrawal or deposit to avoid incorrect interventions. The intervention sensor can be integrated into almost all pick-by-light shelf displays.



■ Compact PTF-S modules

for narrow shelving systems, e.g. at assembly workstations

PTF-SL-3

H: 25 mm x W: 57 mm

Options:  QRS  SOUND



PTF-S3N-3

H: 25 mm x W: 101 mm

Options:  QRS  SOUND



Special module

PTF-I/O-1

H: 50 mm x W: 85 mm

I/O module with 4 inputs/ outputs
for external sensors or actuators.



PTF-PERIF

H: 50 mm x W: 113 mm

Perif module with 2x USB and 1x RS232 interface as a
connection unit for peripheral devices such as scanners.



Large display

PTF-PNL-1

H: 165 mm x W: 200 mm x D: 46 mm

Interface unit for connecting up to a screen
via HDMI. Used to display status quo or information.



Container Illumination

■ with PickTerm Tray

H: 414 mm x W: 205 mm

Flexible illumination of different storage compartments of a transport container, e.g. on lift systems with trays or on automatic small parts stores. Light spot size and light spot color are individually adjustable.



■ with PickTerm Pointer

Alternative, static solutions for targeted illumination of subdivided storage containers with low to medium access heights

PTF-PT-3

H: 48 mm x W: 94 mm

Static, high-performance light pointer module with multicolored LED light source in RGB colors.



PTF-PT-4

H: 47 mm x W: 48 mm

Compact special version with single-color LED light source and fixed light beam positioning.



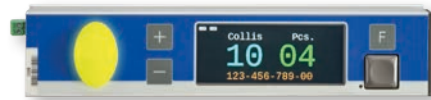
Controller

- The interface between light modules and control computer

PTF-ZCTRL2

H: 50 mm x W: 224 mm

Compact zone controller e.g. on mobile picking carts with LCD graphic colour display (320x120 px), Touchscreen, Ethernet-, RS232- and 2x USB ports.



PTF-SUBC2

H: 50 mm x W: 113 mm

Controller for small pick-to-light systems. Extern power supply necessary. Can also be used as a connection unit for peripheral devices such as scanners. 2x Ethernet, 2x RS232 and 2x USB connections.



PTF-SUB3

H: 280 mm x W: 280 mm

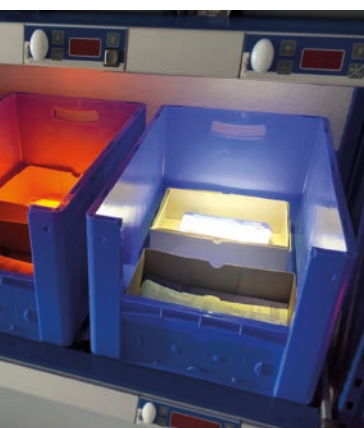
Controller with integrated power supply for displays and up to 4 PTF connections. 2x Ethernet, 1RS232C, RS485 and USB connections.



PTF-MIU

H: 300 mm x W: 500 mm

Compact interface unit for large systems. Flexible, modular design with Ethernet, RS485 and USB connections.



Special Version

■ SEKAN Fill Level Sensor

H: 50 mm x W: 77 mm

Fill level sensor module for E-Kanban applications, e.g. for monitoring and electronic refill control of material replenishment in flow racks. Precise distance measurement to determine the number of containers in a flow rack channel with automatic demand notification in real time.



KBS Quick&Easy Technical Terms Glossary

Pick-by-Light / Pick-to-Light

is the process of paperless order picking using light displays as to guide the operators. An electronic display on the compartment or bin shows the operator the items and the volume to be picked.

PTF - PickTerm Flexible

The advanced pick-by-light system from KBS. Guarantees the greatest degree of flexibility through „Plug & Pick“ and an innovative PTF bus system.

PTF-S - PickTerm Flexible small

The lean version of the Pick-by-Light system – used especially for assembly work stations.

Module / shelf display

This is the term for the Pick-by-Light module positioned directly on the compartment from which the items are to be picked. It consists at minimum of an eye-catching lamp and a confirmation button.

Plug & Pick

KBS's quick and flexible installation system: simply clip on the shelf display and start order picking.

Dual LED lamp

Eye-catching lamp divided horizontally into two halves for different colour combinations.

Long travel key

Mechanical confirmation key.

Snap-On System

The module is simply snapped onto its position.

LTouch

Confirmation by lightly touching the lamp (equipped with a sensor).

QRS - QuickReply-Sensor

Contact-free confirmation via sensor positioned above or below the display.

EPD - Electronic Paper Display

Graphic, black-white EP display – enables multi-line display (text/barcode/QR code etc.).

LED-POINTER

Point-to-pick feature for additional container illumination.

PTF-SENTINEL

Intervention monitoring sensor of a pick or deposit.

SEKAN - Fill Level Sensor

Special sensor module for electronic refill control of material replenishment in eKanban systems.

**KBS will support you in the planning and implementation.
Just give us a call or send us an e-mail and get to know us.**

**KBS**
KBS Industrieelektronik GmbH

Burkheimer Str. 10
79111 Freiburg - Germany
Phone: +49 761 45 255 -0 | -50 | -52 | -53
E-Mail: sales@kbs-gmbh.de

www.kbs-gmbh.com

Member of **BVL**
Bundesvereinigung
Logistik