HMI – Human Machine Interface operation and monitoring

**KeTop Basic**
The HMI standard

KEBA®
Automation by innovation.

It's All About Partnership.
And Choices.

Automation solutions become a success factor when they give our customers the freedom to make the most of their competitive advantage. A good relationship needs space.

The KEBA formula

It is this unique mixture of creativity, enthusiasm, determination and enjoyment of working together that makes our employees KEBAns.
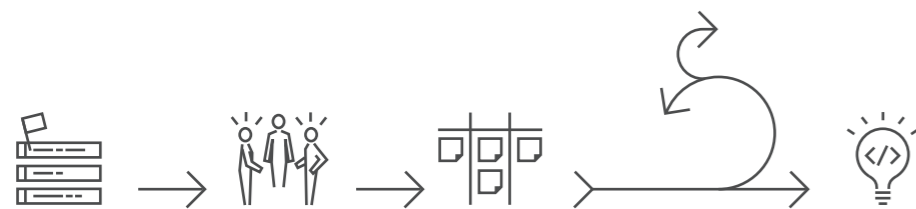
Working in agile teams provides an excellent breeding ground for encouraging the development of different talents and personalities. As part of an organisation with flat hierarchies, it is the people who work here that create a very special working atmosphere. Creating an environment in which you can really feel the innovation.
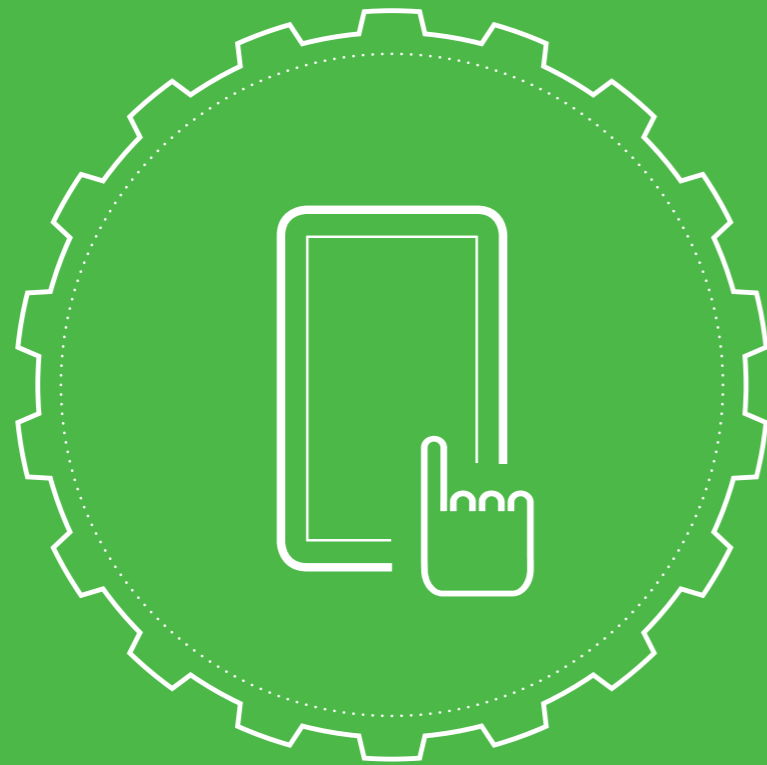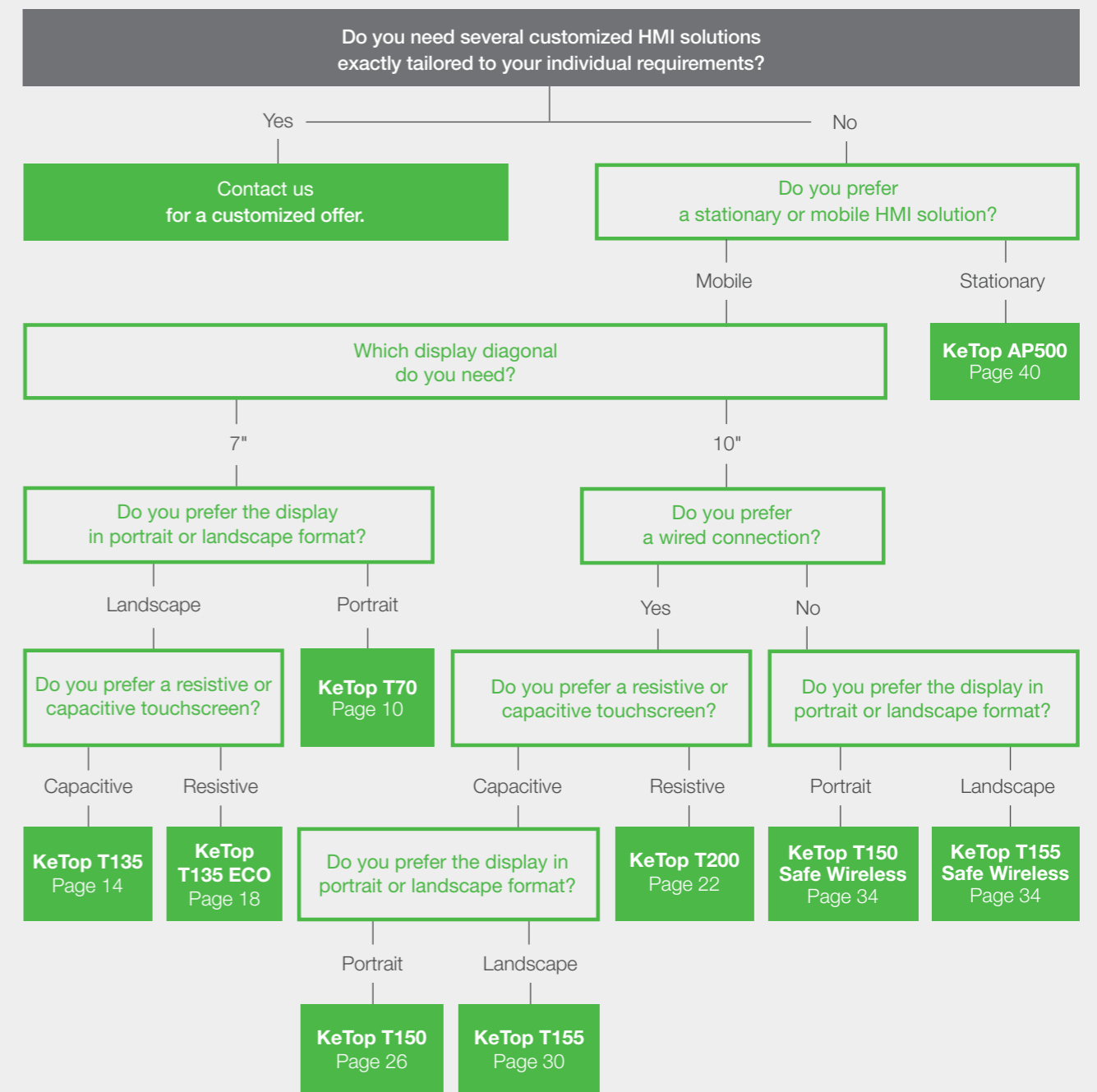
Table of contents

KeTop Basic
The HMI standard

KeTop decision tree

The KeTop decision tree was created to help you, our customers and partners, find the right HMI solution. By answering only a few questions, it guides you directly to the ideal KeTop Basic product for you – in line with your high requirements and needs.

In the product chapters, we present the different **KeTop Basic models** and **their advantages.** Let yourself be guided through the brochure and discover the various **KEBA junction boxes and cables** in further product chapters, perfectly matched to each KeTop model, of course. **That way you are guaranteed to make the right choice**.

Do you need several customized HMI solutions exactly tailored to your individual requirements?

Yes — **Contact us for a customized offer.**

No — **Do you prefer a stationary or mobile HMI solution?**

Stationary — **KeTop AP500** Page 40

Mobile — **Which display diagonal do you need?**

7"

Do you prefer the display in portrait or landscape format?

Portrait — **KeTop T70** Page 10

Landscape — **Do you prefer a resistive or capacitive touchscreen?**

Capacitive — **KeTop T135** Page 14

Resistive — **KeTop T135 ECO** Page 18

10"

Do you prefer a wired connection?

Yes — **Do you prefer a resistive or capacitive touchscreen?**

Capacitive — **Do you prefer the display in portrait or landscape format?**

Portrait — **KeTop T150** Page 26

Landscape — **KeTop T155** Page 30

Resistive — **KeTop T200** Page 22

No — **Do you prefer the display in portrait or landscape format?**

Portrait — **KeTop T150 Safe Wireless** Page 34

Landscape — **KeTop T155 Safe Wireless** Page 34

KeTop Basic overview

From mobile to stationary HMI.

KEBA offers a unique selection of mobile and stationary operating devices. Performance and size are adapted to the respective visualization and operating tasks. Depending on the model, our HMI solutions are available with resistive or capacitive touchscreens – and in case of mobile devices, they are equipped with membrane keyboards.

Efficiency is the hallmark of the KeTop Basic range. All products are control-independent and can therefore be easily integrated into existing solutions. The user interface is created through a construction kit.

The operating devices of the KeTop Basic range are already preconfigured and the various combination options with matching accessories are clearly defined. With products from the KeTop Basic series, selecting the ideal HMI solution has never been easier.

Overview HMI

T150
Safe Wireless

Safe Wireless
base station CB4x

T155
Safe Wireless

T155

T150

T70

T200

AP500

T135

T135 ECO

KeTop T70

KeTop T70 with robotics keyboard

The tried-and-tested 7" mobile hand-held control unit in portrait format is ideally suited for robot teaching.

The KeTop T70 mobile terminal has a high-resolution display. It is ideally suited for demanding visualisation and operation applications. The robust housing is light and ergonomic, allowing long operation without fatigue.

Unique features, such as the modular design, which allows performance to be adjusted by upgrading to newer processor technologies as application requirements increase, make the KeTop T70 a long-term and versatile hand-held operating device.

What do all KeTop T70 models with Windows 10 IoT include as a standard?

- // 7" TFT WSVGA Display, 600 x 1024 pixels
- // Analog resistive touch screen
- // USB 2.0
- // Atom x6211: 64 GB or 256 GB SSD Flash
- // 4 GB DDR3L RAM
- // Intel 10 Gen HD Graphics

Scan code for
the technical
data sheet

Choose your KeTop Basic model

Mat. no.	Name	Keyboard	Hot-plug capable	Safety elements	Options
131545	KeTop T70-M0a-AP0-W10E	Keyboard KEBA Standard WIN10 with 21 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos.
131546	KeTop T70-M00-AP0-W10E	Keyboard KEBA Standard WIN10 with 21 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	
131547	KeTop T70-R00-AP0-W10E	Keyboard KEBA Robotics WIN10 with 21 keys, 4 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	
131548	KeTop T70-M0w-AP0-W10E	Keyboard KEBA Standard WIN10 with 21 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **externally** wired 3 rel. pos.
131549	KeTop T70-R0g-BP0-W10E	Keyboard KEBA Robotics WIN10 with 21 keys, 4 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	16 position gray coded rotary switch **internally** wired
133370	KeTop T70-R0w-BP0-W10E	Keyboard KEBA Robotics WIN10 with 21 keys, 4 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	Handweel **internally** wired
133375	KeTop T70-R0a-AP0-W10E	Keyboard KEBA Robotics WIN10 with 21 keys, 4 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos.
135007	KeTop T70-M0w-NP0-W10E	Keyboard KEBA Standard WIN10 with 21 keys, 3 status LEDs and 1 power LED	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	Handweel **internally** wired

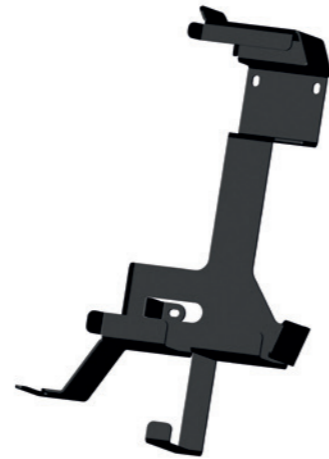## KeTop T70 keyboards

T70 standard keyboard

T70 robotics keyboard

Optional accessories for KeTop T70

Wall bracket
KeTop WB070
Mat. no. 94528

**Wall bracket
incl. cable holder**
KeTop WB075
Mat. no. 94529

// You have decided on a KeTop T70 model and accessories?

Now turn to page 45, where you will find the perfect junction box for your KeTop in a "mix and match" style.

No junction box needed? Discover our range of open end cables on page 48 and 49.

// What does hot-plug capability mean?

Hot-plug refers to the addition or removal of a hand-held terminal from a control without triggering an emergency stop on the machine. This is possible by the use of an illuminated emergency stop on the KeTop and an automatic emergency stop jumper in the hot-plug capable junction box CB310. You can read more about the CB310 junction box on page 46.

KeTop T135

KeTop T135
with Automation keyboard

Choose your KeTop Basic model

Mat. no.	Name	Keyboard	Hot-plug capable	Safety elements	Options
130507	KeTop T135-M9tq-AQ0-Lx	KEBA Automation with 14 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	Illuminated, momentary, green push button **internally** wired Potentiometer (Override) Joystick 2 axis, analogue, **internally** wired
130508	KeTop T135-P16w-NQU-Lx	KEBA Automation with 14 keys, 3 status LEDs and 1 power LED + 3 keys on rear side	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos. 16 position rotary switch, **internally** wired, with bedstop Handwheel 50 increments, **internally** wired USB-A port on rear side
130546	KeTop T135-M000-AQ0-Lx	KEBA Automation with 14 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	
132121	KeTop T135-RA0q-AQU-Lx	KEBA Robotics keyboard with 14 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **externally** wired Joystick 2 axis, analogue, button function, **internally** wired USB-A port on rear side
132122	KeTop T135-PA6w-AQU-Lx	KEBA Automation with 14 keys, 3 status LEDs and 1 power LED + 3 keys on rear side	No	Emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **externally** wired 3 rel. pos. 16 position rotary swtich, **internally** wired, with bedstop Handhweel 50 increments, **internally** wired USB-A on rear side

The mobile 7" web visualization for all controls can be equipped with up to three operating elements.

The KeTop T135 is equipped with a 7" multitouch screen and, thanks to a browser for all modern visualization tasks, as well as, thanks to an Ethernet connection, it can be used with any control system. The T135 impresses with the best ergonomics, compactness and is a real lightweight. The back-mounted keyboard also allows for practical one-handed operation. Discover the many configuration options thanks to the wide range of optional control elements.

What do all KeTop T135 models with Linux Debian include as a standard?

// 7" TFT WSVGA display, 1024 x 600 pixels
// PCT projected capacitive touchscreen
// CPU ARM Cortex A53 Quad Core 1,6GHz
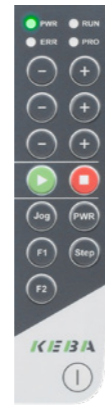// Memory 4 GB RAM, 8 GB Flash

Scan code for
the technical
data sheet

KeTop T135 keyboards

T135
Automation keyboard

T135
3 keys on rear side

T135
Robotics keyboard

Optional accessories for KeTop T135

Wall bracket
KeTop WB130
Mat. no. 131524

Symbolic photo. Screws/magnets
are not included in delivery.

**Wall bracket with
cable holder**
KeTop WB T13K
Mat. no. 131525

Magnetic clamp
KeTop MC070
Mat. no. 94530

**// You have decided on a KeTop T135 model
and accessories?**

KeTop T135 ECO

T135 ECO
mit Automation keyboard

T135 ECO
mit Robotics keyboard

Choose your KeTop Basic model

Mat. no.	Name	Keyboard	Hot-Plug capable	Safety elements	Options
132197	KeTop T135e-M000-AE0-Lx	Keyboard KEBA Automation with 14 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit. Enabling switch 3 pos	
132198	KeTop T135e-RA07-AE0-Lx	Keyboard KEBA Robotics with 14 keys, 3 status LEDs and 1 power LED	No	Emergency stop twin circuit Enabling switch 3 pos	Key switch I-0-II **externally** wired 3 rel. pos. Illuminated, momentary, white push button **internally** wired

The new addition to the KeTop family. Equipped with a 7"
analog resistive touchscreen, it is the cost efficient version of
the KeTop T135.

Thanks to a browser, the KeTop T135 ECO can be used for all modern visualization tasks
and, thanks to the Ethernet connection, can be used with any control system. The T135 ECO
impresses with the best ergonomics, compactness and is a real lightweight.

What do all KeTop T135 ECO models with Linux Debian include as a standard?

// 77" TFT WSVGA Display, 1024 x 600 pixels
// Analog resistive touchscreen
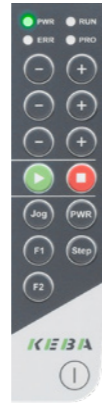// CPU ARM Cortex A53 Dual Core 1,2 GHz
// Memory 2 GB RAM, 4GB Flash

Scan code
for the technical
data sheet

KeTop T135 ECO keyboards

T135 ECO
Automation keyboard

T135 ECO
Robotics keyboard

Wall bracket
KeTop WB130
Mat. no. 131524

Symbolic photo. Screws/magnets
are not included in delivery.

**Wall bracket with
cable holder**
KeTop WB T13K
Mat. no. 131525

Magnetic clamp
KeTop MC070
Mat. no. 94530

**// You have decided on a KeTop T135 ECO model
and accessories?**

Now turn to page 45, where you will find the perfect junction box for
your KeTop in a „mix and match" style.

No junction box needed? Discover our range of open end cables on
page 48 and 49.

KeTop T200

T200 with standard keyboard

Mat. no.	Name	Keyboard	Hot-plug capable	Safety elements	Options
131526	KeTop T200-M01-PP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs	Yes	Illuminated emergency stop twin circuit 2 enabling switches 3 pos.	Key switch I-0-II **externally** wired 3 rel. pos.
131527	KeTop T200-M0A-CP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs	No	Emergency stop twin circuit 2 enabling switches 3 pos	Key switch I-0-II **externally** wired 3 rel. pos.
131528	KeTop T200-M01-NP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos.
131529	KeTop T200-M26-PP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs 12 keys designed to move robot axis efficiently on backside	Yes	Illuminated emergency stop twin circuit 2 enabling switches 3 pos.	16 position gray coded selector switch **internally** wired
135010	KeTop T200-M0Z-CP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs	No	Emergency stop twin circuit 2 enabling switches 3 pos	Illuminated, momentary, white push button **externally** wired
135041	KeTop T200-M01-CP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs	No	Emergency stop twin circuit 2 enabling switches 3 pos	Key switch I-0-II **internally** wired 3 rel. pos.
135043	KeTop T200-M0A-DP0-W10E	Keyboard KEBA with 22 keys and 4 status LEDs	No	Stop button twin circuit 2 enabling switches 3 pos.	Key switch I-0-II **externally** wired 3 rel. pos.

The 10" mobile hand-held control unit is the ideal replacement for stationary panels and is equipped with an analog resistive touchscreen.

The KeTop T200 mobile terminal has an ergonomic housing with a brilliant, HD-capable display. Fast processors allow for sophisticated visualization and operating applications.

With integrated safety elements, PC-level performance, and Windows 10 IoT, it is a full-fledged replacement for stationary panels. Unique features such as performance that grows with the applicationand an additional, optional keypad on the back of the housing make the KeTop T200 a long-term and versatile hand-held operating device.
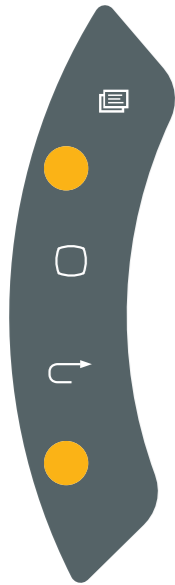
What do all KeTop T200 models with Windows 10 IoT include as a standard?
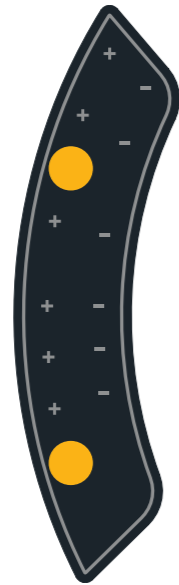
// 10,1" TFT WXGA display, 1280 x 800 pixels

// Analog resistive touch screen

// USB 2.0

// Atom x6211: 64 GB or 256 GB SSD Flash

// 4 GB DDR3L RAM

// Intel 10 Gen UHD Graphics

Scan code for the technical data sheet

KeTop T200 keyboards

T200 keyboard backside
3 big keys on back

T200 keyboard backside
12 axis travel keys on back side

T200 keyboard KEBA

Optional accessories for KeTop T200

Symbolic photo. Screws/magnets
are not included in delivery

Wall bracket
KeTop WB150
Mat. no. 105052

**Wall bracket
with cable holder**
KeTop WB205
Mat. no. 94862

// You have decided on a KeTop T200 model and accessories?

Now turn to page 45, where you will find the perfect junction box for your KeTop in a „mix and match" style.

No junction box needed? Discover our range of open end cables on page 48 and 49.

KeTop T150

T150 with standard keyboard
Emergency stop twin circuit

T150 with robotics keyboard
Illuminated emergency stop

Choose your KeTop Basic model

Mat. no.	Name	Keyboard	Hot-plug capable	Safety elements	Options
131371	KeTop T150-M10-AP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	No	Emergency stop twin circuit. Enabling switch 3 pos	Key switch I-0-II **internally** wired 3 rel. pos. (back)
131372	KeTop T150-r10-NP0-W10E	Robotics keyboard with 24 keys and 5 status LEDs	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos. (back)
133660	KeTop T150-r00-NP0-W10E	Robotics keyboard with 24 keys and 5 status LEDs	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	
133746	KeTop T150-r10-AP0-W10E	Robotics keyboard with 24 keys and 5 status LEDs	No	Emergency stop twin circuit. Enabling switch 3 pos	Key switch I-0-II **internally** wired 3 rel. pos. (back)

The first choice for more demanding tasks in robotics. Equipped with a PCT touch screen and a large, high-resolution screen.

The KeTop T150 in portrait format has a capacitive touchscreen that can be operated as a true multi-touch touchscreen and thus scores points for ease of use, ergonomics and user experience. Despite a display size of 10 inches, the KeTop T150 is a real lightweight. The KeTop T150 is designed in modular design. Optional features, such as energy storage, allow for additional diverse application scenarios.

Designed for mixed use of wired and wireless solutions: The same application can be operated either on a T150 wired unit or a T150 Safe Wireless – one application for a wide range of uses.

What do all KeTop T150 models with Windows 10 IoT include as a standard?

// 10,1" TFT WXGA display, 800 x 1280 pixels
// PCT projected capacitive touch screen
// Ethernet, USB 2.0
// Atom x6211: 64 GB or 256 GB SSD Flash
// 4 GB DDR3L RAM
// Intel 10 Gen UHD Graphics

Scan code for
the technical
data sheet

KeTop T150 keyboards

T150
standard keyboard

T150
standard keyboard
for front
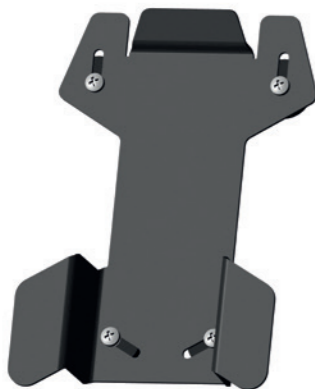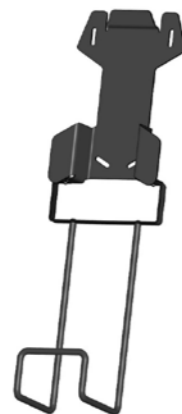control element

T150
robotics keyboard

T150
robotics keyboard
for front
control element

Optional accessories for KeTop T150

Symbolic photo. Screws/magnets
are not included in delivery

Wall bracket
KeTop WB150
Mat. no. 105052

**Wall bracket
with cable holder**
KeTop WB T15K
Mat. no. 122109

Protection cover
KeTop Bumper
Mat. no. 125248

Carrying set
for KeTop T150
and T150WL
Mat. no. 136171

Energy storage
for KeTop T150
Mat. no. 108460

Display protection foil
for KeTop T15x and
Safe Wireless
Mat. no. 130285

**// You have decided on a KeTop T150 model
and accessories?**

Now turn to page 45, where you will find the perfect junction box
for your KeTop in a „mix and match" style.

No junction box needed? Discover our range of open end cables
on page 48 and 49.

KeTop T155

T155 with standard keyboard
emergency stop twin circuit

T155 with standard keyboard
illuminated emergency stop

Ideally suited for the use of existing landscape format HMI applications. Equipped with a PCT touchscreen and a large, high-resolution screen.

The KeTop T155 in landscape format has a capacitive touchscreen that can be operated as a true multi-touch touchscreen and thus scores points for ease of use, ergonomics and user experience. Despite a display size of 10 inches, the KeTop T155 is a real lightweight.

The KeTop T155 is designed in modular design. Optional features, such as energy storage, allow for additional diverse application scenarios.

Designed for mixed use of wired and wireless solutions: The same application can be operated either on a T155 wired unit or a T155 Safe Wireless – one application for a wide range of uses.

What do all KeTop T155 models with Windows 10 IoT include as a standard?

// 10,1" TFT WXGA Display, 1280x800 pixels
// PCT projected capacitive touch screen
// USB 2.0
// Atom x6211: 64 GB or 256 GB SSD Flash
// 4 GB DDR3L RAM
// Intel 10 Gen UHD Graphics

Scan code for
the technical
data sheet

Choose your KeTop Basic model

Mat. no.	Name	Keyboard	Hot-plug capable	Safety elements	Options
131357	KeTop T155-M10-AP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	No	Emergency stop twin circuit Enabling switch 3 pos	Key switch I-0-II **internally** wired 3 rel. pos.
131358	KeTop T155-M10-NP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos.
131359	KeTop T155-MA0-AP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	No	Emergency stop twin circuit Enabling switch 3 pos	Key switch I-0-II **externally** wired 3 rel. pos.
131370	KeTop T155-M16-AP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	No	Emergency stop twin circuit Enabling switch 3 pos	Key switch I-0-II **internally** wired 3 rel. pos. 16 position selector switch **internally** wired, with bedstop
132219	KeTop T155-M16-NP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	Yes	Illuminated emergency stop twin circuit Enabling switch 3 pos.	Key switch I-0-II **internally** wired 3 rel. pos. 16 position selector switch **internally** wired, with bedstop
133047	KeTop T155-C16-AP0-W10E	Keyboard KEBA CNC with 18+1 keys and 3+2 status LEDs	No	Emergency stop twin circuit Enabling switch 3 pos	Key switch I-0-II **internally** wired 3 rel. pos. 16 position selector switch **internally** wired, with bedstop
133248	KeTop T155-M0w-AP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	No	Emergency stop twin circuit Enabling switch 3 pos	Handwheel 50 increments, **internally** wired
133730	KeTop T155-M10-BP0-W10E	Standard keyboard KEBA with 21 keys and 5 status LEDs	No	Stop button twin circuit Enabling switch 3 pos.	Key switch I-0-II internally wired 3 rel. pos.
135307	KeTop T155-R00-AP0-W10E	Robotics keyboard with 24 keys and 4 status LEDs	No	Emergency stop twin circuit Enabling switch 3 pos	

KeTop T155 keyboards

T155 standard keyboard

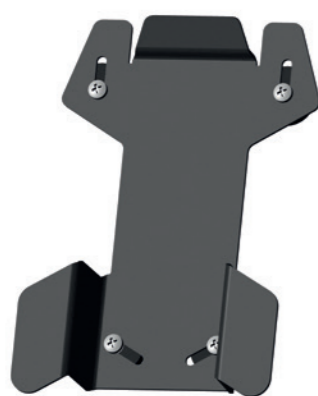
T155 robotics keyboard
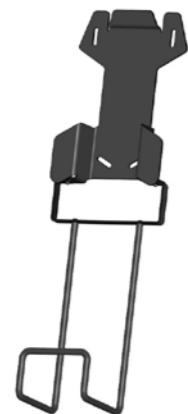

T155 CNC keyboard
for front control element

T155 robotics keyboard
for front control element

Optional accessories for KeTop T155

Symbolic photo. Screws/magnets
are not included in delivery.

Wall bracket
KeTop WB150
Mat. no. 105052

**Wall bracket
with cable holder**
KeTop WB T15K
Mat. no. 122109

Protection cover
KeTop Bumper
Mat. no. 122868

Carrying set
for KeTop T155
and T155WL
Mat. no. 136160

Energy storage
for KeTop T155
Mat. no. 108460

Display protection foil
for KeTop T15x and
Safe Wireless
Mat. no. 130285

// What does energy storage mean?

An energy storage device in the form of a capacitor for efficient switching between junction boxes using the hibernate mode (maintenance-free). When unplugged, the energy of the storage is used to shut down the unit in hibernate mode and then generate a faster start-up time when plugged in again.

// You have decided on a KeTop T155 model and accessories?

Now turn to page 45, where you will find the perfect junction box for your KeTop in a "mix and match" style.

No junction box needed? Discover our range of open end cables on page 48 and 49.

KeTop T150 / 155
Safe Wireless

T150 SWL with
robotics keyboard

Base station CB410

T155 SWL with
standard automation keyboard

The wireless handheld operating device
in portrait or landscape format.

The new Safe Wireless KeTop T150 in portrait and T155 in landscape format combine user experiences from the high-end smartphone world, such as connectivity and multi-touch use as well as safe machine operation.

With the KeTop Safe Wireless models, you can implement safe operation without restrictions. Any (safety) control can be used due to discrete safety outputs. Even retrofit solutions can be realised this way.

The robust Bluetooth connection for the communication of safety data guarantees maximum availability and thus uninterrupted operation.

Optional operation area monitoring prevents operation in areas where the danger is no longer visible, although a radio connection still exists. Thanks to Windows 10, PCT touchscreen and optional HMI software, all options are open for integration.

Scan code for
the technical
data sheet

Choose your KeTop Safe Wireless model

Mat. no.	Name	Format	Keyboard	Safety elements	Options
124395	KeTop T150WL-R11-EN0-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II, camera, 5MP, 2592x1944 67° viewing angle, autofocus
124396	KeTop T150WL-R11-EN1-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Key switch I-0-II, camera, 5MP, 2592x1944 67° viewing angle, autofocus
124397	KeTop T150WL-R10-EN0-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II
124398	KeTop T150WL-R10-EN1-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Key switch I-0-II
126688	KeTop T150WL-R16-EN0-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II 3 rel. pos. (rear side) 16 position selector switch, without bedstop
126808	KeTop T150WL-R1S-EN0-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II 3 rel. pos. (rear side) Handwheel 50 increments
128756	KeTop T150WL-R1Y-EN0-W10E	Portrait 800 x 1280 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II 3 rel. pos. (rear side), camera, 5MP, 2592x1944 67° viewing angle, autofocus 16 position selector switch
128758	KeTop T150WL-D10-EN1-W10E	Portrait 800 x 1280 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II 3 rel. pos. (rear side) Operation area monitoring
124390	KeTop T155WL-D11-EN0-W10E	Landscape 1200 x 800 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II, camera, 5MP, 2592x1944 67° viewing angle, autofocus
124391	KeTop T155WL-D11-EN1-W10E	Landscape 1200 x 800 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Key switch I-0-II, camera, 5MP, 2592x1944 67° viewing angle, autofocus
124392	KeTop T155WL-D10-EN0-W10E	Landscape 1200 x 800 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II
124393	KeTop T155WL-D10-EN1-W10E	Landscape 1200 x 800 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Key switch I-0-II
124394	KeTop T155WL-R70-EN0-W10E	Landscape 1200 x 800 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Illuminated emergency stop twin circuit enabling switch 3 positions	Illuminated, momentary, white push button **internally** wired

Mat. no.	Name	Format	Keyboard	Safety elements	Options
126252	KeTop T155WL-D0S-EN0-W10E	Landscape 1200 x 800 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions	Handwheel 50 increments
126253	KeTop T155WL-R01-EN0-W10E	Landscape 1200 x 800 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions	Camera, 5MP, 2592x1944 67° viewing angle, auto-focus
126510	KeTop T155WL-R70-EN1-W10E	Landscape 1200 x 800 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Illuminated, momentary, white push button
126503	KeTop T155WL-R00-EN0-W10E	Landscape 1200 x 800 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions	
128757	KeTop T155WL-R10-EN0-W10E	Landscape 1200 x 800 px	Robotics keyboard KEBA with 22+2 keys and 5+1 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II 3 rel. pos. (rear side)
124504	KeTop T155WL-D16-EN0-W10E	Landscape 1200 x 800 px	Automation keyboard KEBA with 20+2 keys and 5+1 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions	Key switch I-0-II 3 rel. pos. (rear side) 16 position selector switch, without bedstop
130611	KeTop T155WL-C0S-EN1-W10E	Landscape 1200 x 800 px	CNC keyboard KEBA with 18+2 keys and 5+2 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Handwheel 50 increments
130612	KeTop T155WL-C0S-EN0-W10E	Landscape 1200 x 800 px	CNC keyboard KEBA with 18+2 keys and 5+2 status LEDs	Iluminated emergency stop twin circuit enabling switch 3 positions Operation area monitoring	Handwheel 50 increments

What do all KeTop T150 / T155 Safe Wireless with Windows 10 IoT include as a standard?

// WiFi 802.11 a/b/g/n/ac
// BT 4.2 to transmit the safe signals to the wireless base station
// Integrated RFID module 13,56MHz
// USB 2.0
// Intel Celeron N2807 2*1.58GHz (bis zu 2.16GHz)
// 64GB SSD Flash, 8GB eMMC Flash, 4GB DDR3 RAM
// Intel 7 Gen HD Graphics

// Why operation area monitoring?

To ensure that no dangerous actions of the machine or machine parts can be triggered outside the field of view, operation area monitoring is available. By means of a timely warning, the operation are monitoring offers the additional advantage that disconnections are reduced.

Through various tactile and optical measures (e.g. vibration of the hand control unit, pulsation of the illuminated emergency stop), the user is alerted when the limit of the operation area has been reached. Depending on the direction, the frequency of these measures increases or slows down.

KeTop T150 / T155 Safe Wireless keyboards

T150 SWL standard keyboard

T150 SWL robotics keyboard

T150 SWL robotics keyboard for front control element

T155 SWL standard keyboard

T155 SWL robotics keyboard

T155 SWL Robotik Tastatur für frontseitiges Bedienelement

T155 SWL CNC keyboard for front control element

Optional accessories for KeTop Safe Wireless

Symbolic photo. Screws/magnets are not included in delivery

Protection cover T150
KeTop Bumper
Mat. no. 125248

Protection cover T155
KeTop Bumper
Mat. no. 122868
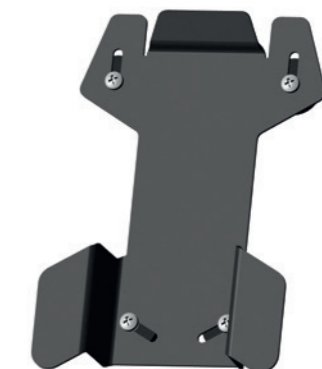
Wall bracket
KeTop WB150
Mat. no. 105052
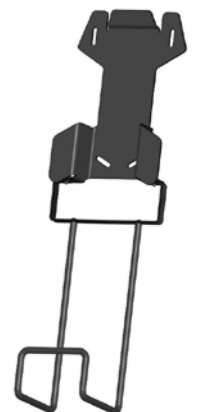
Wall bracket with cable holder
KeTop WB T15K
Mat. no. 122109

Power supply
KeTop 24VDC supply kit
Mat. no. 128939

Display protection foil
or KeTop T15x and Safe Wireless
Mat. no. 130285

Carrying set
for KeTop T150
and T150WL
Mat. no. 136171

Carrying set
for KeTop T155
and T155WL
Mat. no. 136160

Choose your Safe Wireless base station

Mat. no.	Name	Safety elements & options	With operation area monitoring	Real-time bus
130619	KeTop CB410-EZ1	- Integrated emergency stop button twin circuit - Safe pairing type detection - With 14 digital outputs for transfer time critical signals - Push button white illuminated momentary - Machine/wall mounting	No	
130620	KeTop CB410-EZ2	- Integrated emergency stop button twin circuit - Safe pairing type detection - With 14 digital outputs for transfer time critical signals - Push button white illuminated momentary - Machine/wall mounting	Yes	
124399	KeTop CB410-EE0	- Integrated emergency stop button twin circuit - Key switch I-0-II (**externally** wired) - Safe pairing type detection - Machine/wall mounting	No	
124400	KeTop CB410-EE1	- Integrated emergency stop button twin circuit - Key switch I-0-II (**externally** wired) - Safe pairing type detection - With 14 digital outputs for transfer of time critical signals - Machine/wall mounting	No	
124401	KeTop CB410-EE2	- Integrated emergency stop button twin circuit - Key switch I-0-II (externally wired) - Safe pairing type detection - With 14 digital outputs for transfer of time critical signals - Machine/wall mounting	Yes	
124295	KeTop CB420-E00	- Integrated emergency stop button twin circuit - Safe pairing type detection - Machine/wall mounting	No	PROFINET / PROFIsafe
124296	KeTop CB420-E03	- Integrated emergency stop button twin circuit - Safe pairing type detection - Machine/wall mounting	Yes	PROFINET / PROFIsafe
126054	KeTop CB421-E00	- Integrated emergency stop button twin circuit - Safe pairing type detection - Rear installation opening	No	PROFINET / PROFIsafe
126055	KeTop CB421-E03	- Integrated emergency stop button twin circuit - Safe pairing type detection - Rear installation opening	Yes	PROFINET / PROFIsafe
130894	KeTop CB430-E00	- Safety elements in FSoE - Integrated emergency stop button twin circuit - No control element - Safe pairing type detection - Machine-/wall mount (in development)	No	EtherCAT
130895	KeTop CB430-E03	- Safety elements in FSoE - Integrated emergency stop button twin circuit - No control element - Safe pairing type detection - Machine-/wall mount (in development)	Yes	EtherCAT

// ATTENTION!

If the option operation area monitoring is selected at the mobile terminal, at least one base station CB4xx which is used with the terminal needs to have this option.

What do all Safe Wireless base stations include as a standard?

// WIFI 802.11a/b/g/n for data transmission to the hand-held device
// BT 4.2 for transmission of safe signals to the hand-held device
// Discrete wiring of the safety elements
// IP65

Choose your Safe Wireless charging station, spare battery & power bank

Mat. no.	Name	Description	Safety elements & options
111903	KeTop CS15x	Charging station for KeTop T150 / T155 Safe Wireless	- Charging contacts for 24 V DC - Terminal blocks for installation - Hollow socket 24V DC 2.1 x 5.5 mm - Mounting material included
120048	Spare battery for KeTop T150WL Spare battery for KeTop T150WL	Spare battery for KeTop T150 Safe Wireless	- Internally mountable - 3.500mAh Li-Ion capacity - With integrated shaft cover and screws
120049	Spare battery for KeTop T155WL Spare battery for KeTop T150WL	Spare battery for KeTop T155 Safe Wireless	- Internally mountable - 3.500mAh Li-Ion capacity - With integrated shaft cover and screws
131539	KeTop BP15xWL Set	Battery Pack for extending the service life of the KeTop 15xWL devices	- Display of the charging status via LEDs - Also serves to charge the internal battery - Double power of the internal battery - With cable and wrist strap attachment - Nominal capacity / energy: ≥3.40 Ah/49 Wh
133130	Device mount for KeTop BP15xWL Set	Charging cable (short) and hand strap attachment	
133131	Belt mount for KeTop BP15xWL Set	Charging cable (long) and belt clip	
133179	KeTop BP15xWL	Battery pack to extend the service life of KeTop T15xWL devices	- Charge status display via LEDs - Also used to charge the internal battery - Double the energy of the internal battery

KeTop AP512 / AP515 / AP521

The stationary, real-time multitouch panel.

The KeTop AP500 panel range offers robust gesture operation through an industrial multitouch with integrated touchbooster for glove operability.

The RealTime multitouch is able to transmit operator interactions in real time via EtherCAT or ProfiNet directly to the control system. Many mechanical components and membrane keys are now a thing of the past. Thanks to the KeTop AP500 line, you can reduce your HMI variants to one panel.

The Intel Atom CPU with 7 Gen Intel HD graphics acceleration makes the KeTop AP500 panel line an optimal platform for visualisation tasks. Multitouch, gesture operation and graphic effects provide a new user experience in machine operation.

Scan code for
the technical
data sheet

Choose your AP512 model

Mat. no.	Name	Display	Interface	CPU / RAM
126846	KeTop AP512-SE/A-0200-W10E	12,1" WXGA display, 1280 x 800 px	Ethernet 100Mbit/s KVC Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
127744	KeTop AP512-SE/A-0300-W10E	12,1" WXGA display, 1280 x 800 px	Ethernet 100Mbit/s KVC Dual Port Ethernet 1 Gbit/s	3 / Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB
127750	KeTop AP512-PN/A-0200-W10E	12,1" WXGA display, 1280 x 800 px	PROFINET IO Device Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
127751	KeTop AP512-PN/A-0300-W10E	12,1" WXGA display, 1280 x 800 px	PROFINET IO Device Dual Port Ethernet 1 Gbit/s	3 / Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB
127756	KeTop AP512-EC/A-0200-W10E	12,1" WXGA display, 1280 x 800 px	EtherCAT Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
127757	KeTop AP512-EC/A-0300-W10E	12,1" WXGA display, 1280 x 800 px	EtherCAT Dual Port Ethernet 1 Gbit/s	3 / Intel Atom E3845 QuadCore 1,91 GHz /4 GB RAM Incl. Cfast MLC memory card 128GB

Choose your AP515 model

Mat. no.	Name	Display	Interface	CPU / RAM
122384	KETOP AP515-SE/A-0200-W10E	15,6" TFT WXGA display, 1366 x 768 px	Ethernet 100Mbit/s KVC Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
123268	KETOP AP515-SE/A-0300-W10E	15,6" TFT WXGA display, 1366 x 768 px	Ethernet 100Mbit/s KVC Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB
123552	KETOP AP515-PN/A-0200-W10E	15,6" TFT WXGA display, 1366 x 768 px	PROFINET IO Device Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
124974	KETOP AP515-PN/A-0300-W10E	15,6" TFT WXGA display, 1366 x 768 px	PROFINET IO Device Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB
124977	KETOP AP515-EC/A-0200-W10E	15,6" TFT WXGA display, 1366 x 768 px	EtherCAT Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
125172	KETOP AP515-EC/A-0300-W10E	15,6" TFT WXGA display, 1366 x 768 px	EtherCAT Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB

Choose your AP521 model

Mat. no.	Name	Display	Interface	CPU / RAM
122428	KETOP AP521-SE/A-0200-W10E	21,5" TFT FullHD display, 1920 x 1080 px	Ethernet 100Mbit/s KVC Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
123280	KETOP AP521-SE/A-0300-W10E	21,5" TFT FullHD display, 1920 x 1080 px	Ethernet 100Mbit/s KVC Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB
122429	KETOP AP521-PN/A-0200-W10E	21,5" TFT FullHD display, 1920 x 1080 px	PROFINET IO Device Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
124975	KETOP AP521-PN/A-0300-W10E	21,5" TFT FullHD display, 1920 x 1080 px	PROFINET IO Device Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB
125173	KETOP AP521-EC/A 0200-W10E	21,5" TFT FullHD display, 1920 x 1080 px	EtherCAT Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 32GB
125888	KETOP AP521-EC/A 0300-W10E	21,5" TFT FullHD display, 1920 x 1080 px	EtherCAT Dual Port Ethernet 1 Gbit/s	Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM Incl. Cfast MLC memory card 128GB

What do all AP500 models with Windows 10 IoT include as a standard?

// TFT display
// PCT projected capacitive multitouch
// High-gloss glass surface
// Backlight: LED (50,000 h)
// Intel 7 Gen HD Graphics
// Dual Port Ethernet 1 Gbit/s for LAN and PLC
// Connector set consisting of supply connector and IO terminals
// 12 digital inputs, 4 digital outputs (not EN 61131-2 compliant)
// 1x USB 3.0, 3x USB 2.0

Accessories for AP512 / AP515 / AP21

Customized versions

Extension panels EP500

In order to install command and signalling devices, AP500 Multitouch panels can be equipped with extension panels (EP500). Depending on the version, up to 11 installation openings are available for any pushbuttons, switches and detectors as well as a yellow marked installation opening for an emergency stop button. Furthermore, an RFID unit can be integrated.
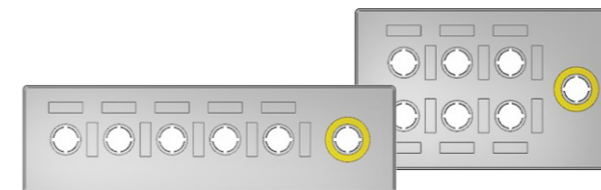
EP512 1-row long-sided, 2-row short-sided
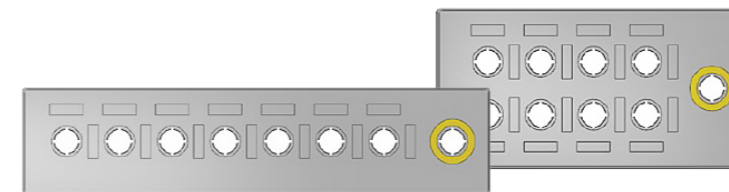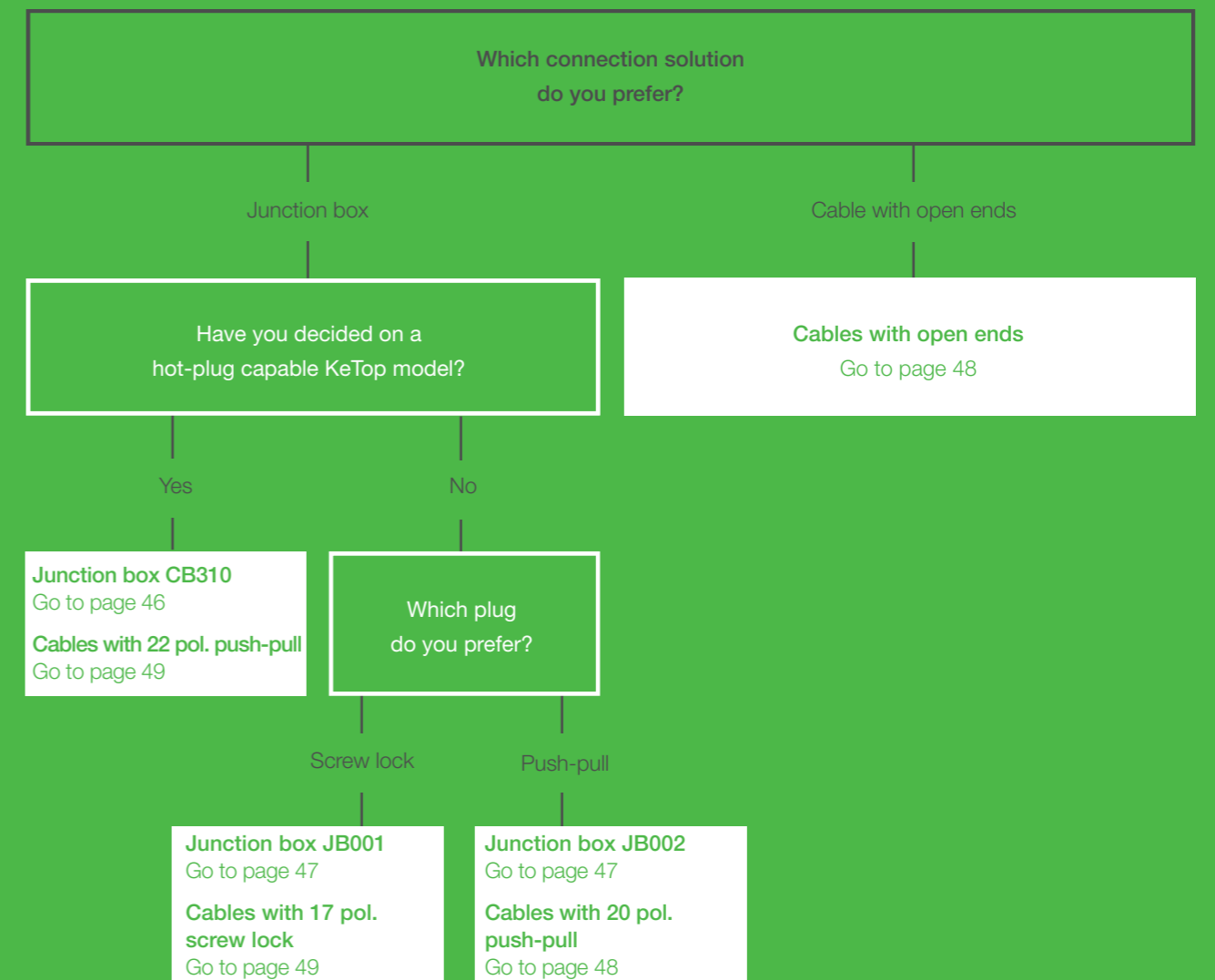

EP515 1-row long-sided, 2-row short-sided
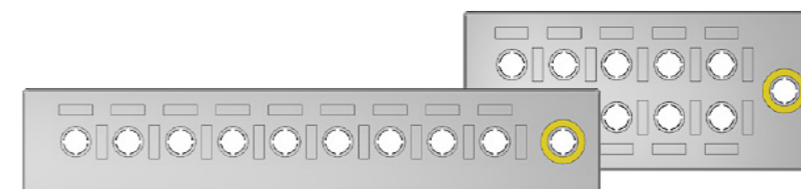
EP521 1-row long-sided, 2-row short-sided

Choose your extension panel

Mat. no.	Name	Display	Model	Description	Surface
130635	EP 501/KE-0312-0000	for AP512	1-row, long-sided	6 mounting holes with 22,5mm diameter with anti-rotation protection; one of them with yellow emergency stop marking	High gloss
130674	EP 502/KE-0312-0000	for AP512	1-row, short-sided	7 mounting holes with 22,5mm diameter with anti-rotation protection; one of them with yellow emergency stop marking	High gloss
130690	EP 501/KE-0511-0000	for AP515	1-row, long-sided	8 mounting holes with 22,5mm diameter with anti-rotation protection; one of them with yellow emergency stop marking	High gloss
130744	EP 502/KE-0511-0000	for AP515	2-row, short-sided	9 mounting holes with 22,5mm diameter with anti-rotation protection; one of them with yellow emergency stop marking	High gloss
130745	EP 501/KE-0911-0000	for AP521	1-row, long-sided	10 mounting holes with 22,5mm diameter with anti-rotation protection; one of them with yellow emergency stop marking	High gloss
130061	EP 502/KE-0911-0000	for AP521	2-row, short-sided	11 mounting holes with 22,5mm diameter with anti-rotation protection; one of them with yellow emergency stop marking	High gloss

KeTop
"Mix & Match"

You have decided on a mobile KeTop hand control unit? In the simple „mix & match" style you can put together the matching accessories on the following pages. Combine your KeTop model with a suitable junction box and cable and choose optional accessories, such as the practical bridge connector or the cable drum KeTop Reel.

Which connection solution do you prefer?

Junction box — Cable with open ends

Have you decided on a hot-plug capable KeTop model?

Cables with open ends
Go to page 48

Yes — No

Junction box CB310
Go to page 46

Cables with 22 pol. push-pull
Go to page 49

Which plug do you prefer?

Screw lock — Push-pull

Junction box JB001
Go to page 47

Cables with 17 pol. screw lock
Go to page 49

Junction box JB002
Go to page 47

Cables with 20 pol. push-pull
Go to page 48

KeTop junction boxes

The hot-plug capable junction box CB310 leaves nothing to be desired. It is suitable for round plug pin 22pol. push-pull and has an already integrated bridge plug as well as a slot detection.

The box checks the connection and indicates, for example, whether the plug is correctly connected or the cable is interrupted (cable break detection). If required, the CB310 can be equipped with safety and operating elements. You can learn about hot-plug capability in our glossary or on page 13.

Hot-plug junction box CB310

Hot-plug junction box CB310 with emergency stop button

Mat. no.	Name	Safety elements	Options
101183	KeTop CB310-000		
101184	KeTop CB310-SE0	Integrated emergency stop button 2-circuit	Key switch I-0-II (externally wired)
107780	KeTop CB310-S00	Integrated emergency stop button 2-circuit	
109796	KeTop CB310-0E0		Key switch I-0-III (externally wired)
126823	KeTop CB310-0Z0		Push button white illuminated tactile

// You do not need a junction box?

On page 48 you find our cables with open ends.

Which product features do all CB310 hot-plug junction boxes have in common?

// Internal bridging of the safety circuits
// Integrated 3 port Ethernet switch (1x handheld, 2x free)
// Discrete wiring of the safety elements
// IP65
// Machine/wall mounting
// Control cabinet mounting with direct internal wiring
// **Must not be combined with units with a permanent red/yellow emergency stop or grey stop button!**

The affordable **junction box JB001** is intended for control cabinet mounting. A combination with KeTop Reel is possible. JB001 only supports KeTop models with **internally** wired controls.

The **junction box JB002** is suitable for push-pull connections. Push-pull enables quick and comfortable connection and disconnection of the cable. Combination with KeTop Reel is possible. JB002 supports both **internally** and **externally** wired controls.

KeTop JB001/A set

KeTop JB002 set

Mat. no.	Name	Safety
66373	KeTop JB001/A set	IP20
96164	KeTop JB002 set	IP54 (when installed)

Bridge connectors for your KeTop junction box

Mat. no.	Name	Safety
60543	KeTop BC001	Bridges the emergency stop signal line For round plug pin 17 pol. screw lock (junction box JB001)
95021	KeTop BC010	Bridges the emergency stop signal line For round plug pin 20 pol. push-pull (junction box JB002)

What do JB001 and JB002 junction boxes have in common?

// Separation of signal and HW power on separate line connections
// Suitable for direct mounting in the control cabinet wall
// Junction box incl. plug and excl. cable

KeTop cables

Cables in different lengths for your KeTop model can be found in this chapter.
To make the selection easier, our top sellers are highlighted in the table below,
including the matching junction box. Of course, you can choose individually from
our large range of products.

	CB310 model hot-plug (22 pol. push-pull)	JB001 (17 pol. screw lock)	JB002 (20 pol. push-pull)
Cable length	Mat. no.	Mat. no.	Mat. no.
5 m	101259	85065	90293
10 m	101271	84808	90294
15 m	101278	85066	95155
20 m	106586	85067	91586

The cables are distinguished between a maximum achievable data rate of 10 Mbit
(JB001, 17 pol. screw locking) and 100 Mbit (JB002, CB310, cables with open ends, all push-pull cables).

// Could not find the right cable?

Contact us! Together we find a solution.

Cables with open ends

	Standard cable externally wired	Standard cable internally wired
Cable length	Mat. no.	Mat. no.
5 m	86129	88089
7 m	x	90300
10 m	94461	93807
15 m	x	93808

20 pol. push-pull connection cable

	Mat. no.	Length
Ethernet	90295	1 m
	90297	3 m

17 pol. screw lock

	Mat. no.	Length
Ethernet	89039	2.5 m
	85065	5 m
	87521	7 m
	84808	10 m
	85066	15 m
	85067	20 m

20 pol. push-pull

	Mat. no.	Length
Ethernet	90292	3 m
	90293	5 m
	90294	10 m
	95155	15 m
	91586	20 m

22 pol. push-pull

	Mat. no.	Length
Ethernet	101258	3 m
	101259	5 m
	101271	10 m
	101278	15 m
	106586	20 m

KeTop Reel for T70 / T150 / T155 / T200

The KeTop Reel cable drum with automatic retraction system is used for comfortable stowage of the connection cable of a KeTop hand control unit.

An increased safety risk due to tripping over uncoiled cables is thus a thing of the past. In addition, the KeTop Reel effectively prevents soiling and damage to the cables and the service life of the cable as well as the safety at work are significantly increased.

The integrated retraction brake ensures simple and safe reeling. The KeTop Reel has overload protection, is EMC-optimised and therefore complies with standards even without filtering in the control cabinet.

Choose your KeTop Reel model

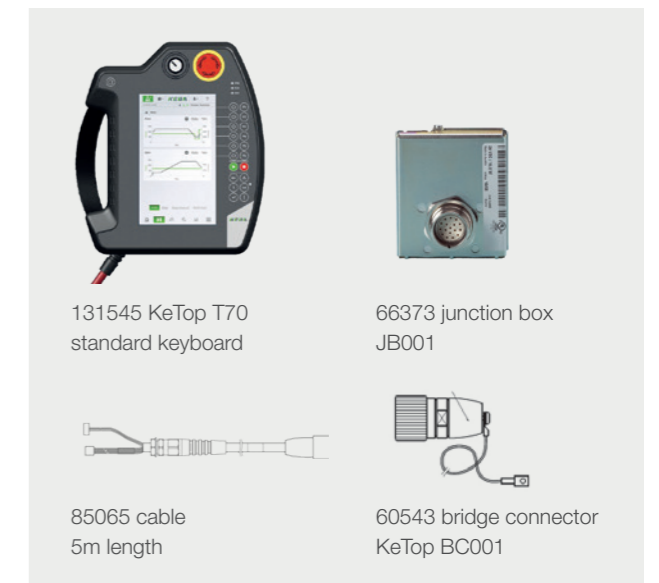| Mat. no.	Name	Extension length	Suitable for junction box	Compatible with externally wired controls
99795	KeTop Reel TT103-PP20	10 m	JB002 (20 pol. push-pull)	Yes
97901	KeTop Reel TT 183-PP20	18 m	JB002 (20 pol. push-pull)	Yes
99940	KeTop Reel TT100-eaa	10 m	JB001 (17 pol. screw lock)	No
97902	KeTop Reel TT180-eaa	18 m	JB001 (17 pol. screw lock)	No

// The following applies to all KeTop Reel models

// Connection length on the control cabinet side 2.5 m
// Locking device for extension and retraction every 50 cm
// Incl. holding and manipulation knob
// Incl. mounting bracket
// Incl. brake module to reduce the cable retraction speed

It's All About Listening.
And Understanding.

KeTop Bundles

You can quickly and easily find the right HMI solution with the KeTop Bundles.
The prefabricated complete sets contain a KeTop Basic model and the matching
junction box with cables and accessories.

Bundle "Economic"

131545 KeTop T70
standard keyboard

66373 junction box
JB001

85065 cable
5m length

60543 bridge connector
KeTop BC001

Bundle "Economic Resistive"

135010 KeTop T200
keyboard KEBA

66373 junction box
JB001

85065 cable
5m length

60543 bridge connector
KeTop BC001

Bundle "Economic Robotics"

133375 KeTop T70
robotics keyboard

66373 junction box
JB001

85065 cable
5m length

60543 bridge connector
KeTop BC001

Bundle "Advanced"

131371 KeTop T150
standard keyboard

96164 junction box
JB002

90293 cable
5m length

95021 brige connector
KeTop BC010

Bundle "Advanced Robotics"

133746 KeTop T150
robotics keyboard

96164 junction box
JB002

90293 cable
5m length

95021 brige connector
KeTop BC010

Bundle "Professional Robotics"

133660 KeTop T150
hot-plug capabable
standard keyboard

101184 junction box
CB310

101259 cable
5m length

Bundle "Safe Wireless"

124397 KeTop T150
hot-plug capable
robotics keyboard

124399 junction box
CB410

111903 charging station T150/T155 SWL

Bundle "Landscape"

107686 KeTop T155
standard keyboard

66373 junction box
JB001

85065 cable
5m length

60543 bridge connector
KeTop BC001

Bundle "Landscape Hot-plug"

109054 KeTop T155
hot-plug capable
standard keyboard

101184 junction box
CB310

101259 cable
5m length

Bundle "Safe Wireless OAM"

124393 KeTop T150 SWL
hot-plug capable
robotics keyboard

124399 KeTop CB410

111903 charging station T150/T155 SWL

Bundle "Web visualization"

130507 KeTop T135
Automation keyboard

96164 junction box
JB002

90293 cable
5m length

Bundle "ECO Web visualization"

132197 KeTop T135 ECO
Automation keyboard

96164 junction box
JB002

90293 cable
5m length

// With the KEBA Quick Start Guides and Step By Step instructions
for the communication interfaces, you can install your KeTop model
and set up the connection to your control in just a few steps.

The Quick Start Guides and documentation for the software library are available from the KEBA
Support at support-a@keba.com, the manuals can be quickly and easily downloaded from the
KEBA Doku portal.

In addition, KEBA recommends **VisiWin for KeTop**, a visualisation solution that already has all
KeTop operator controls integrated. This is a web-based or .NET-based framework.

More information about VisiWin for KeTop can be found on the following pages.

Software

Operator Controls

LEDs speaker

keyboard

control elements

Every KeTop model comes with **Windows 10 IoT Enterprise software** pre-installed as standard software.
This is a fully-fledged Windows version that is in no way inferior to a classic PC in terms of features.

You have the free choice of using your preferred development environment for creating your visualisation.
The operator controls can be easily evaluated via a software library. We will gladly advise you on our KeTop
models with Linux software in a personal conversation.

Flexible connection to different control types

The operator controls of your KeTop handheld terminal can not only be evaluated locally in your
visualisation software, but also easily connect via the existing Ethernet interface to various control
systems. For this purpose, the following pre-installed communication interfaces are available:

// for **Siemens** controls, we offer an interface based on the S7 protocol
// for **Beckhoff** controls we offer an interface based on the ADS protocol
// for all other control systems, the Modbus TCP or OPC UA protocol is available

Windows 10 IoT Enterprise

// Version Windows 10/1607 LTSB 2016
// Licence already included in every KeTop unit on delivery
// Pre-installed browser MS Edge

VisiWin for KeTop

Under the name VisiWin for KeTop, KEBA, in cooperation with INOSOFT, offers a customised visualisation solution for all KEBA handheld devices of the KeTop Basic series. This solution is based on the open and powerful HMI and SCADA software VisiWin 7 and can be connected through own drivers or OPC UA with nearly every PLC.

VisiWin for KeTop offers modern and freely designable user interfaces, which can be run either as a native application directly on the Windows operating system of the KeTop devices or alternatively in the web browser. This gives you maximum flexibility and the right solution for every application.

Another highlight of the software is the implementation of high-quality and ergonomic user interfaces for your machine with the support of modern input options such as swipe and zoom gestures. This gives machine operators the familiar smartphone operating feeling on a KeTop device as well.

Depending on the version, KeTop handheld terminals are equipped with a keyboard and individual operating elements. These can also be integrated into the VisiWin user interfaces by means of special extensions and used conveniently. The added value of these hardware elements, which can be intuitively operated by the employee, thus also appears in the software and enables a consistent and harmonious user experience.

The sale of VisiWin for KeTop as well as technical support are provided by KEBA. We also provide you with information on INOSOFT training courses and workshops on VisiWin for KeTop.

The visualisation software VisiWin for KeTop contains the installation for the development environment (IDE) and the installation for the runtime (RT). The licensing of the IDE is done via USB dongles and for the RT via a software activation.

	1st license	2nd or 3rd license	4th or 5th license	S5th license and upwards	Bundle of 5 licenses
SDK	Mat. no. 107996 KeTop ViWi-WIN-SDK-1SI	Mat. no. 110314 KeTop ViWi-WIN-SDK-3SI	Mat. no. 110314 KeTop ViWi-WIN-SDK-5SI	Mat. no. 110312 KeTop ViWi-WIN-SDK-6SI	Mat. no. 110310 KeTop ViWi-WIN-SDK-BSI

	T70 with 2000 powertags	T150 / T155 T150 / T155 SWL AP500 10-15" with 2000 powertags	T150 / T155 T150 / T155 SWL AP500 10-15" with 4000 powertags	AP500 21-24" with 4000 powertags
RT	Mat. no. 107999 KeTop ViWi-WIN-RT-T1	Mat. no. 108001 KeTop ViWi-WIN-RT-T3	Mat. no. 121244 KeTop ViWi-WIN-RT-T4	Mat. no. 121243 KeTop ViWi-WIN-RT-T5

KEBA glossary

Model names / codes

KeTop T70

Keyboard front
- M / KEBA standard 21 keys, 3 status LEDs, 1 Power LED
- R / KEBA robotics x86, 21 keys, 4 status LEDs, 1 power LED

Keyboard back
- 0 / no keyboard on back
- q / 3 big keys

operator controls
- A / key switch I-0-II externally wired 3 rel. pos.
- a / key switch I-0-II internally wired 3 rel. pos.
- 0 / no operator control

KeTop T70 M0A-AN0-W10E

CPU / memory
- P / Atom X-Serie, Dual-Core, 64GB SSD Flash, 4GB RAM

Software
- W10E / Windows 10 IoT Enterprise License

Safety
- A / emergency stop + enabling switch
- N / illuminated emergency stop + enabling switch
- B / stop button grey + enabling switch

Options
- 0 / no options

KeTop T200

Keyboard back
- 0 / without backside keyboard
- 1 / 3 big keys on back
- 2 / 12 axis travel keys for efficient robot operation on the back side

Keyboard front
- M / Keyboard KEBA with 22 keys and 4 Status LEDs

Operator controls
- M / keyboard KEBA with 22 keys
- 0 / no operator control
- 1 / key switch I-0-II internally wired 3 rel. pos.
- 6 / 16 step selector switch gray coded internally wired
- A / key switch I-0-II externally wired 3 rel. pos.
- Z / push button white illuminated momentary externally wired
- w / handwheel internally wired

CPU / memory
- P / Atom X-Serie, Dual-Core, 64GB SSD Flash, 4GB RAM

KeTop T200-M01-PN0-W10E

Safety
- A / emergency stop twin circuit, enabling switch 3 pos.
- C / emergency stop twin circuit, 2 enabling switches 3 pos.
- P / illuminated emergency stop twin circuit, 2 enabling switches 3 pos.
- Z / 2 enabling switches 3 pos.

Software
- W10E / Windows 10 IoT Enterprise License

Connection cable
- 0 / no connection cable

KeTop AP512 / AP515 / AP521

Interface
- SE / standard Ethernet
- EC / EtherCat
- PN / ProfiNet

Option CPU
- 2 / Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM, incl. Cfast MLC memory card 32GB
- 3 / Intel Atom E3845 QuadCore 1,91 GHz / 4 GB RAM, incl. Cfast MLC memory card 128GB

Screen size
- 12 / 12,1"
- 15 / 15,6"
- 21 / 21,5"

KeTop AP515-PN/A-0200-W10E

Software
- W10 / Windows 10 IoT Enterprise License

Version
- A / KEBA standard

Optional cooling
- 0 / without

Model
- 0 / standard

Glass surface
- 0 / high gloss

KeTop T150 / T155

Keyboard front
- M / KEBA standard 21 keys, 5 status LEDs
- R / robotics keyboard 20 keys, 3 status LEDs
- C / CNC Tastatur 18+1 Tasten und 5 Status LEDs
- r / KEBA robotics for Windows10 24 keys, 4 status LEDs

Operator controls front
- 0 / no operator controls in front
- 6 / 16-step selector switch grey-coded internally wired
- G / 16-step selector switch grey-coded externally wired
- w / handwheel

Operator controls back
- 0 / no operator controls in back
- 1 / key switch i-0-II internally wired 3 rel. pos.
- 9 / push button green illuminated internally wired
- A / Key switch i-0-II externally wired 3 rel. pos.
- E / Key switch I-II externally wired 2 rel. pos., 4 wires (I/II in separate circuits)

KeTop T150-M10-AN0-W10E

Software
W10E / Windows 10 IoT Enterprise License

Options
- 0 / no options
- C / with energy storage

Safety
- A / emergency stop + enabling switch
- B / stop button grey + enabling switch
- N / illuminated emergency stop + enabling switch

CPU / memory
- P / Atom X-Serie, Dual-Core, 64GB SSD Flash, 4GB RAM

KeTop T150 / T155 Safe Wireless

Keyboard
- D / keyboard KEBA Automation with 20+2 keys, 5+1 status LEDs
- R / KEBA robotics keyboards, 22+2 keys, 5+1 status LEDs
- C / KEBA CNC keyboard with18+2 keys and 5+1 status LEDs

Operator controls back
- 0 / no operator control
- 1 / key switch I-0-II internally wired 3 rel. pos
- 7 / push button white illuminated; keys internally wired

Operator controls front / camera
- A / key switch I-0-II externally wired 3 rel. pos
- a / key switch I-0-II internally wired 3 rel. pos
- 0 / no operator control
- 6 / 16 pos. selector switch, no bedstop
- S / handwheel

KeTop T150WLR10-NN0-W10E

Software
- W10E / Windows 10 IoT Enterprise License

Options
- 0 / no options
- 1 / operation area monitoring

Safety
- N / illuminated emergency stop + enabling switch

CPU / memory
- N / Intel Celeron N2807 2*1.58GHz, 64GB SSD Flash, 8GB eMMC Flash, 4GB DDR3 RAM

Hot-plug / hot-plug capability

Hot-plug refers to the addition or removal of a hand-held control unit from a control without triggering an emergency stop on the machine. This is possible by the use of an illuminated emergency stop on the KeTop and an automatic emergency stop jumper in the hot-plug capable junction box CB310.

Illuminated emergency stop

An illuminated emergency stop switch is only available on hot-plug capable KeTop models. It has the same functionality as a red and yellow emergency stop switch. It is wired in 2 circuits and the contacts are designed as break contacts. The difference is that it can only be used when connected (i.e. ready for operation) due to the lighting. The illuminated emergency stop only functions if the hand-held control unit is connected to a base station and – if an optional operating range is configured – the unit is within the operating range.

Internally / externally wired key switch

Internally wired means that the key position is read out by the device and can be evaluated via a software interface. Externally wired means that the contacts of the key switch are connected directly to the connection cable and thus can be evaluated directly wired at the PLC or in the safety logic. You will find more information on this in the corresponding KeTop manual in the chapter "key switch".

The type of key switch, internally or externally wired, influences the choice of the junction box suitable for KeTop. Basically, all hot-plug capable KeTop models have an internally wired key switch and are combined with the hot-plug capable junction box CB310.

The connection box JB001 can only be selected in combination with internally wired key switches, the junction box JB002 supports all KeTop models. A wired key switch can optionally be realised on the box.

Operation area monitoring for KeTop Safe Wireless

To ensure that no dangerous actions of the machine or machine parts can be triggered outside the field of view, an operation area monitoring (OAM) is available. The OAM offers the additional advantage of reducing the probability of disconnections.

The radio range guarantees optimum coverage of the working area. A reliable line of sight defines the operation area. Through various tactile and visual measures (e.g. vibration of the hand-held pendant, pulsing of the illuminated emergency stop), the user is notified when the limit of the operation area (max. 20m) has been reached. When leaving the operation area, the operator is warned by vibration of the control unit and pulsing of the emergency stop. The unintentional triggering of the emergency stop is prevented. If the tolerance range is exceeded, the emergency stop is triggered immediately.

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