

HMI

KeTop AP500

The stationary, real-time-enabled multitouch panel



The KeTop AP500 panel line offers robust gesture control through industrial-grade multitouch with built-in touch booster for operation with gloved hands. The RealTime Multitouch is able to transmit operator interventions in real time directly to the control system via EtherCAT or PROFINET. This makes many mechanical built-in parts and membrane keys a thing of the past.

For the installation of command and signaling devices, AP500 multitouch panels can be fitted with extension panels (EP500).

Product features

- // PCT projected capacitive multitouch
- // Extension panels optionally available
- // RealTime Multitouch with RT Widgets optional
- // Customizable hardware and software

KeTop AP500

Technical specifications

Display	AP512	AP515	AP521
Type	TFT display	TFT display	TFT display
Size	12.1"	15.6"	21.5"
Resolution	WXGA 1280 x 800 pixels	WXGA 1366 x 768 pixels	Full HD display 1920 x 1080 pixels
Touch sensor	PCT projected capacitive multitouch	PCT projected capacitive multitouch	PCT projected capacitive multitouch
Glass surface	Glossy	Glossy	Glossy
Backlighting	LED (50,000 h)	LED (50,000 h)	LED (50,000 h)
Brightness	300 cd/m2	400 cd/m2	300 cd/m2

Interfaces	AP512	AP515	AP521
Communication	1 x Gbit/s Ethernet LAN interface, 1 x 100 Mbit/s Ethernet PLC interface	1 x Gbit/s Ethernet LAN interface, 1 x 100 Mbit/s Ethernet PLC interface	1 x Gbit/s Ethernet LAN interface, 1 x 100 Mbit/s Ethernet PLC interface
Transfer	1x USB 3.0 / 3x USB 2.0	1x USB 3.0 / 3x USB 2.0	1x USB 3.0 / 3x USB 2.0
RealTime Ethernet slave (optional)	EtherCAT / PROFINET	EtherCAT / PROFINET	EtherCAT / PROFINET

KeTop AP500

Technical specifications

Dimensions & weight	AP512	AP515	AP521
Dimensions	341 x 231 x 76 mm	425 x 274 x 76 mm	552 x 343 x 76 mm
Weight	Approx. 3.4 kg	Approx. 4.6 kg	Approx. 6.3 kg

CPU	AP512	AP515	AP521
CPU	Intel Atom E3845 (4GB)	Intel Atom E3845 (4GB)	Intel Atom E3845 (4GB)
Cores	QuadCore 4 x 1,91 GHz	QuadCore 4 x 1,91 GHz	QuadCore 4 x 1,91 GHz
Memory	4 GB RAM	4 GB RAM	4 GB RAM
GPU	Intel 7 Gen HD graphics	Intel 7 Gen HD graphics	Intel 7 Gen HD graphics
Removable media	CFast card, SD card	CFast card, SD card	CFast card, SD card

Digital I/Os	AP512	AP515	AP521
Digital inputs	12 (not EN 61131-2 compliant)	12 (not EN 61131-2 compliant)	12 (not EN 61131-2 compliant)
Digital outputs	4 (not EN 61131-2 compliant)	4 (not EN 61131-2 compliant)	4 (not EN 61131-2 compliant)
Rated voltage	24 V	24 V	24 V
Voltage ranges	-3 to 5 volts low, 15 to 30 volts high	-3 to 5 volts low, 15 to 30 volts high	-3 to 5 volts low, 15 to 30 volts high
Load-independent contact current	5 mA (supply only through Vout)	5 mA (supply only through Vout)	5 mA (supply only through Vout)
Galvanic isolation	No	No	No
Min. update cycle	60 ms	60 ms	60 ms

Ambient conditions	AP512	AP515	AP521
Operating temperature	0°C to 45 °C (optionally to 55 °C)	0°C to 45 °C (optionally to 55 °C)	0°C to 45 °C (optionally to 55 °C)
Storage temperature	-20 °C to 60 °C	-20 °C to 60 °C	-20 °C to 60 °C
Relative humidity	5 % to 95 % (non-condensing)	5 % to 95 % (non-condensing)	5 % to 95 % (non-condensing)
Vibration resistance	5 Hz < f < 8.4 Hz with 3.5 mm, 8.4 Hz < f < 150 Hz with 1 g (EN 61131-2 and EN 60068-2-6)	5 Hz < f < 8.4 Hz with 3.5 mm, 8.4 Hz < f < 150 Hz with 1 g (EN 61131-2 and EN 60068-2-6)	5 Hz < f < 8.4 Hz with 3.5 mm, 8.4 Hz < f < 150 Hz with 1 g (EN 61131-2 and EN 60068-2-6)
Shock resistance	15 g / 11 ms (EN 61131-2 and EN 60068-2-27)	15 g / 11 ms (EN 61131-2 and EN 60068-2-27)	15 g / 11 ms (EN 61131-2 and EN 60068-2-27)

General data	AP512	AP515	AP521
Power supply	24 V DC	24 V DC	24 V DC
Max. inrush current	10 A	10 A	10 A
Max. power consumption	40 W	43 W	53 W
Protection class	III according to EN 61131-2	III according to EN 61131-2	III according to EN 61131-2
IP code	IP65 at front when properly installed, IP20 at rear	IP65 at front when properly installed, IP20 at rear	IP65 at front when properly installed, IP20 at rear
Certification	UL, CE	UL, CE	UL, CE
Installation	Wall-mounted	Wall-mounted with quick fastener	Wall-mounted with quick fastener
Directives	EMC Directive 2004/108/EC, RoHs Directive 2011/65/EU	EMC Directive 2004/108/EC, RoHs Directive 2011/65/EU	EMC Directive 2004/108/EC, RoHs Directive 2011/65/EU