

HMI

KeTop AP524

The stationary, real-time-enabled multitouch panel with Force Feedback Technology



The KeTop AP524 panel offers robust gesture operation 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.

The RealTime widgets transmit the information of the real-time touch input to the controller and thus replace the manual control elements with inputs on the touchscreen.

Equipped with Force Feedback Technology, the AP524 provides haptic feedback and performs a force measurement of the touch on the screen. The operator receives feedback on the inputs by means of vibration. This can be triggered either directly when the surface of the screen is touched or when a defined force threshold is exceeded.

The integrated KeWheel is a rotary controller with a push function that can simulate various pre-configured control elements and change them during runtime, e.g. hand wheel, scroll wheel, selector switch, override switch.

Product features

- // PCT projected capacitive multitouch
- // Integrated extension panels
- // RealTime Multitouch with RT Widgets
- // Integrated KeWheel

KeTop AP524

Technical specifications

Display	AP524
Type	TFT display with capacitive multitouch screen and Force Feedback Technology
Size	24"
Resolution	FullHD display 1920 x 1080 pixels
Touch sensor	PCT projected capacitive multitouch
Glass surface	Glossy or anti-reflective
Backlighting	LED (30,000 h)
Brightness	300 cd/m ²

KeTop AP524

Technical specifications

KeWheel	AP524
Power consumption	Max. 24 W
Lifetime push function	> 1,000,000 actuation with 10 ± 2 N
Lifetime rotating function	> 500,000 revolutions for operating element with 100 positions (detents) per revolution 1,000,000 revolutions in freewheel mode

Interfaces	AP524
Communication	2 x 1 Gbit/s Ethernet LAN interface, 1x 100 Mbit/s PROFINET PLC Interface
Transfer	1x USB 3.0 / 3x USB 2.0
Real-time Ethernet slave	EtherCAT / PROFINET

Dimensions & Weight	AP524
Dimensions	388 x 800 x 100 mm
Weight	Approx. 19.8 kg

CPU	AP524
CPU	Intel Atom E3845
Cores	Quad Core
Memory	4 GB RAM
GPU	Intel 7 Gen HD Graphics
Removable media	CFast Card, SD Card

Digitale I/Os	AP524
Digital inputs	12 (not EN 61131-2 compliant)
Digital outputs	4 (not EN 61131-2 compliant)
Rated voltage	24 V DC
Voltage ranges	-3 to +5 volts low, 15 to 30 volts high
Load-independent contact current	5 mA (supply only through Vout)
Galvanic isolation	No
Min. update cycle	60 ms

Ambient conditions	AP524
Operating temperature	0°C to 45 °C
Storage temperature	-20°C to 60°C
Relative humidity	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)
Shock resistance	15 g / 11 ms (EN 60068-2-27)

General data	AP524
Power supply	24 V DC
Max. inrush current	10 A
Max. power consumption	85 W
Protection class	III according to EN 61131-2
IP code	IP65 at front, IP54 at rear
Certification	UL, CE
Installation	Intended for support arm system with 100 x 100 hole pattern
Directives	EMC Directive 2014/30/EU, RoHs-Directive 2011/65/EU