signotec Kappa

LCD Signature Pad
with Fingerprint Sensor

Description and data sheet

MADE IN GERMANY

Qualität · Sicherheit · Ökologie

Version: 1.2
Date: 2018-01-16

HIGHLIGHTS

- **The Signature Pad has an additional Fingerprint Sensor**
- **Including free of charge software packages incl. SDK for several programming languages**
- **Unique RSA-signature creation device and RSA-encryption methods inside the pad**
- **„Content Signing" allows to directly sign the content displayed on the LCD, to assure to sign the correct document**
- **Secure mode for real time display**
- **Several options for secure certificate and key management inside the pad**

- Affordable, monochrome LCD signature tablet with LED backlight
- Slim design – only 3 cm thick
- Futronic Fingerprint Sensor
- Compact size for stationary and mobile use
- High-resolution display for luminous text and graphics
- No special pen or batteries required
- USB cable is firmly linked with the pad (Anti-theft protection)
- Long service life and robust
- Outstanding technical data for digitising signatures
- High security due to encrypted data transfer
- Customer-defined case colour and logo
- Unique RSA-signature creation device and RSA-encryption methods inside the pad
- HID-USB – no driver installation necessary
- Automatic pad recognition

- Signature input area can be defined and deleted
- Buttons can be defined, queried and cancelled on the display
- The application interface version is retrievable
- The model number and firmware version of the pad is retrievable as well
- Retrievable explicit serial number
- Output of up to 500 samples per second of X, Y, time and pressure coordinates
- Auto-Power-Off with relevant signal on USB bus
- Signature display in real time
- Secure mode is only transmitting unusable data of the signature for real time display

TECHNICAL DATA

Dimensions	
Thickness	30 mm
Width	175 mm
Height	194 mm

Fingerprint Sensor	
Manufacturer	Futronic
Type	FS80 / FS81
Scanning Window Size	16 x 24 mm
Image Resolution	480x320 px, 500 dpi
Raw Fingerprint Image File Size	160 kB
Light Source	Infrared LED
Power Consumption	Active: <600mW (during finger scanning)
	Standby: <200mW
	Sleep: <11mW
ESD Contact	8KV
ESD Air Discahrge	16KV
Integration	Futronic SDK
	http://www.futronic-tech.com/product_sdk_win.html

Signature Pad Display	
Type	10,5 cm (4"), monochrome with backlight
Resolution	320 x 160 pixel absolute ≙ 86 x 86 ppi
Pixel size	0,275 mm
Visible area	92 x 47 mm

Signature Pad Sensor	
Active signing area	92 x 47 mm
Resolution	4096 x 4096 pixel absolute ≙ 2214 x 1130 ppi
Linearity	$\pm$ 1,5 % in x-, y- und z- direction
Input method	Special sensor for pen input
Surface	Special surface with wear protection
Pressure sensor unit	1024 pressure stages
Pen	No special pen – cheap replacement

Signature Pad Electronics/Digitisation	
Output rate of coordinates	Up to 500 Hz 4D samples (consisting of x, y, time, pressure)
Internal sampling rate	6.000 samples per second
USB port	USB-HID Full-Speed (full-speed interrupt transfers)
USB standby support	Yes, when relevant signal is present the device will switch off
Power consumption	Standby-Mode: $< 500\,\mu A$, operating: 165 mA.
Driver	Not necessary for HID-USB.
Software/SDK/Tools	SDK and tools free of charge incl. updates and new versions
Data transfer	AES 256 encrypted data transfer between PC and pad via RSA key exchange
Serial number	Unique and retrievable internal serial number
Status display	2 coloured and freely programmable LEDs
Plug'n'Play	Yes, for both connection types (HID and virtual serial)
Readout protection of the firmware	Yes, flash memory is protected against readout

Miscellaneous	
Cable port	USB
Cable length	Approx. 2 Meters
Weight	Approx. 400 grams
Pen attachment	Highly flexible textile tether
ROHS	ROHS compliant
Barcode	A barcode with a serial number is located on the device and the cardboard box
WEEE-Reg.-Nr. (German register for used devices)	DE 41995888
Operating systems	Windows 7 and later, Windows Server 2008 and later, Windows Terminal Server support, Citrix support, Linux; 32 and 64 Bit
Protection class	IP 52

Operating and storage conditions	
Operating temperature	- 10° C to + 60° C
Storage temperature	- 25° C to + 70° C
Max. humidity for operating and storage	<= 90 % non-condensing
Air pressure for operating and storage	> 700 hPa

Reliability/Quality assurance	
Quality test	Individual testing of devices with test log
High temperature test of the components	240 hours at 80° C
Low temperature test of the components	240 hours at - 40° C
Humidity test of the components	240 hours at 60° C and 90 % humidity
Thermal shock test of the components	30 minutes at – 40° C and directly 30 minutes at + 80° C (10x in succession)

Article numbers signotec Kappa	
Signature Pad signotec Kappa	ST-FPB105-2-U100

Article number description:

ST   Manufacturer (signotec)

FP   Fingerprint Sensor

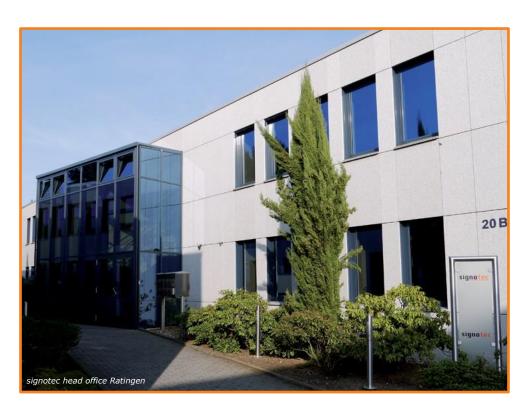B   Monochrome LCD with backlight

105   Sensor size (10 cm x 5 cm)

2   USB cable length (2 meters)

U   HID-USB

100   Standard colour regarding the overlay and case

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