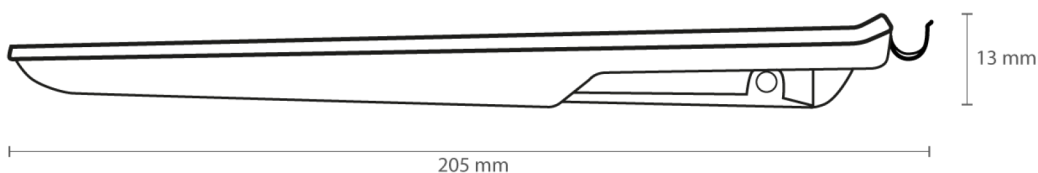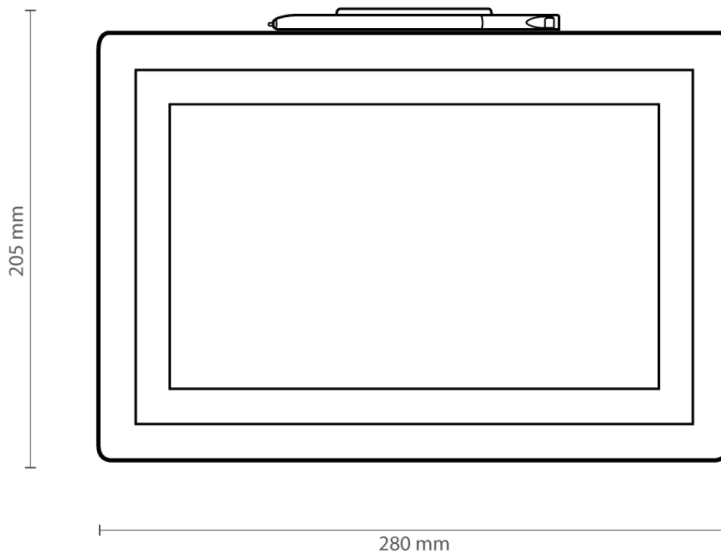# signotec Delta

Highlights & Data Sheet

HIGHLIGHTS

- 10,1" (25,6 cm) full-colour display.
- Extremely robust, hardened Sensor glass-surface (8H) with ER-technology.
- Signature capturing with 500 Hz 4D samples and 2.048 pressure stages (x, y, z, t).
- Unique RSA-signature creation and RSA-encryption methods inside the pad.
- Slideshow with up to 32 individually configurable images.
- Battery-free pen with changeable pen tip.
- „Content Signing" allows signing the LCD-content with the captured signature.
- Secure Mode to display the signature on the screen in real-time.
- Delivery comes with completely assembled USB cable, pen and cord.
- Including free of charge software packages.

TECHNICAL DATA

General data

Dimensions	280 x 205 x 13 - 23 mm (W x D x H), with fold-out stand: 85 mm height
Casing colours	Upper shell: RAL 7021, black-grey Lower shell: RAL 9010, pure white
Cable port	Micro-USB (with strain relief) to 2x USB-B (Y-cable)
Cable length	Approx. 2,7 meters
Power consumption	USB: 950 mA at 4,75 – 5,25 V DC PoE: max. 160 mA (6,84 W)
Power supply	USB, optionally available USB power adapter (2.1 A, 5 V) Power over Ethernet (PoE)
Status-LED	2 coloured and freely programmable LEDs
Stand	VESA-Stand size: 75x75mm, thermoplastic screws Diameter: 3mm, max. penetration depth: 6,5mm
Weight	Approx. 830 grams (incl. cable)
Warranty	2 years, optional extension up to 5 years.
Country of origin	Germany

Display

Type	Full-Colour-TFT
Size	10.1" (25,6 cm)
Colour space	16,7 million
Backlight	LED-Backlight, brightness: 250 cd/m²
Configuration of backlight	The backlight can be configured with an API or configuration file.
Resolution	1.280 x 800 pixels ≙ 150 x 150 ppi
Pixel size	0,1695 x 0,1695 mm
Visible area	216,96 x 135,6 mm
Line of sight	6 o'clock
Scroll-function	Maximum size of the displayed image: 1.280 x 37.600 pixels.

Sensor

Type	ERT (Electronic Resonance Technology)
Active signing area	216,96 x 135,6 mm
Resolution	10.800 x 6.900 pixels ≙ 1.264 x 1.292 dpi
Linearity	+/- 0,4 mm (centre), +/- 1.00 mm (edge)
Method of input	Special sensor for pen input (no influence by hand touch).
Surface	Extremely durable, hardened, highly polished special glass.
Surface hardness	8H
Life expectancy	Approx. 30 million signatures
Pressure stages	2.048 pressure stages
Output rate of coordinates	500 Hz 4D-samples (consisting of x, y coordinates, time and pressure)
Internal sampling rate	6.000 samples per second
Stability of output rate	Constant through integrated quartz
Pen	Active and battery-free pen with changeable pen tips.
Minimal pressure force	0.098 N (10 gf)
Maximal pressure force	7.845 N (800 gf)
Life expectancy of the pen	Approx. 1,2 million signatures at 250 grams pressure and 2,5 cm length.
Pen tilt angle	+/- 45°

Possible height of the pen	5 - 15 mm
Pen attachment	Highly flexible textile-cord and horizontal pen holder.

Connection types

USB	HID-USB and WinUSB
Serial	Optional with internal USB-Serial-Converter (VCOM-Port) or chargeable VCOM-Port-Driver.
USB-Standby-Support	Yes, if the corresponding signal is given, the device switches off.
Ethernet	Optional; RJ45 Ethernet-Port (10/100 Mbit/s), DHCP available.

Driver and Software

Driver	No special driver is required for a USB connection.
Plug and Play	Yes, available for all connection types.
SDK (API)	Several SDKs including updates and support available.
Tools	Tools free of charge including updates and support.
Software	Further chargeable software available.

System environment

Operating System	Windows 7 and newer, Windows Server 2012 and newer, 32- and 64-Bit, Linux
Terminal Server and Citrix	Compatible with Windows Remote Desktop and Citrix ICA
Citrix Virtual Channel	Optionally available

Security mechanisms

Data transfer	AES-256 encrypted data transfer between host and pad via RSA key exchange.
Encryption	RSA-Encryption unit inside the pad.
Firmware	Flash memory is protected against data theft.
Secure Mode	Real-time display of the signature without usable biometrics.
Signature unit	RSA signature creation unit in the pad.
Key storage	Creation and storage of certificates in the pad.
Key size	4096 Bit
Certificate Signing Request (CSR)	CSR can be generated in the pad and extracted.
Trusted certificates	The CSR can be signed by a root authority. Additional information: eIDAS Pad Signature Seal
Supported Hash-algorithms	SHA-1, SHA-256 and SHA-512
Signature-Performance	Transmission and Signing of a SHA-256 Hash via WinUSB: 2048 Bit: 150 ms; 3072 Bit: 500 ms; 4096 Bit: 1.000 ms
signotec „Content-Signing"	Yes
Protection against forceful break in	The casing can be glued optionally.

Miscellaneous

Transport protection	No
Individualization	Change of casing colour and logo print (on request).
Slideshow	A standby slideshow with up to 32 images is freely configurable.
Certifications and standards	CE, FCC, DIN EN 60950-1, DIN EN 61000-6-1, EN 61000-6-3, EN 55022, EN 55024

RoHS	RoHS-compliant according to EU-regulations.
WEEE-Reg.-No. (German register for used devices)	DE 41995888
Packaging law Reg.-No.:	DE 3470684644700
Serial number	Unique and retrievable, internal serial number.
Device label	There is a label on the packaging and the device with information regarding the article number, hardware revision and serial number, including a barcode.

Operating- and storage conditions

Operating temperature	-10°C to +45°C
Storage temperature	-25°C to +70°C
Air humidity for operation and storage	<= 90%, non-condensing
Air pressure for operation and storage	> 700 hPa
Degree of protection	IP 52

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

ST-DERT-3-U100	signotec Delta USB, 2,7 m USB-cable
ST-DERT-3-UE100	signotec Delta USB and Ethernet, 2,7m USB-cable
ST-DERT-3-UPOE100	signotec Delta USB and Ethernet incl. Power over Ethernet, 2,7m USB-cable