Instruction Manual

VISAM TouchPanel

VTP-AX 328

A product of the

VBASE - HMI/SCADA – family

Document: **HB_VTPAX_328_v1.0e_FINAL.doc**

Version: 1.0, English

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1 Important Explanation

To ensure the user a fast installation and startup of the described devices it is essential to carefully read and note the following instructions and hints.

1.1 Legal Bases

1.1.1 Copyright

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1.1.2 Personnel Qualification

The construction of the following instruction and the usage of the VBASE-product family require basic knowledge about the used windows operating system and the used remote systems. (e.g. SPS)!

The in this document described product use is directed exclusively to professionals or trained personnel, who are also familiar with the valid standards.
The VISAM GmbH offers at request inexpensive training for the use of the here described products.

1.1.3 Intended Use

The systems are delivered from factory with the specific use case and with a dedicated hardware and software configuration. Alterations are only allowed in the context of the in the documentation featured possibilities. All other changes to the hardware or software and the non-conforming use of the systems nullify the liability of VISAM GmbH.

1.1.4 License Agreement

The usage of all in this documentation described programs and program parts are subject to the VBASE license agreement.

1.2 Range of validity

This document provides a general description, in conjunction with certain hardware and/or software. Note the latest and detailed descriptions accompanying the products!

1.3 Used symbols

	**Note** Information that should be noted to ensure a faultless and effective operation.
	**Hint** Tips and hints for the efficient use of the system respectively system optimization.
	**ESD** Warning of damage to the systems / components by electrostatic discharge. Precautions should be taken when handling electrostatically sensitive components.

2 Introduction

2.1 Regarding this document

This manual is intended to clarify the use of the VISAM TouchPanel devices („VTP"). In this document the device specific setting and possibilities are described.
The handling of the on this device installed VBASE HMI/SCADA software is described in a separate description.

2.2 The Article – and Model number

At this point a brief commentary on the article and model numbers of these VTP series is given.
The model number is rather general and serves as a rough identification of the VTP. The model number provides information about the operation system, the display size and the built-in version of the VTP.
The article number however contains even more information. In the following figure, the part of the article number is further explained.

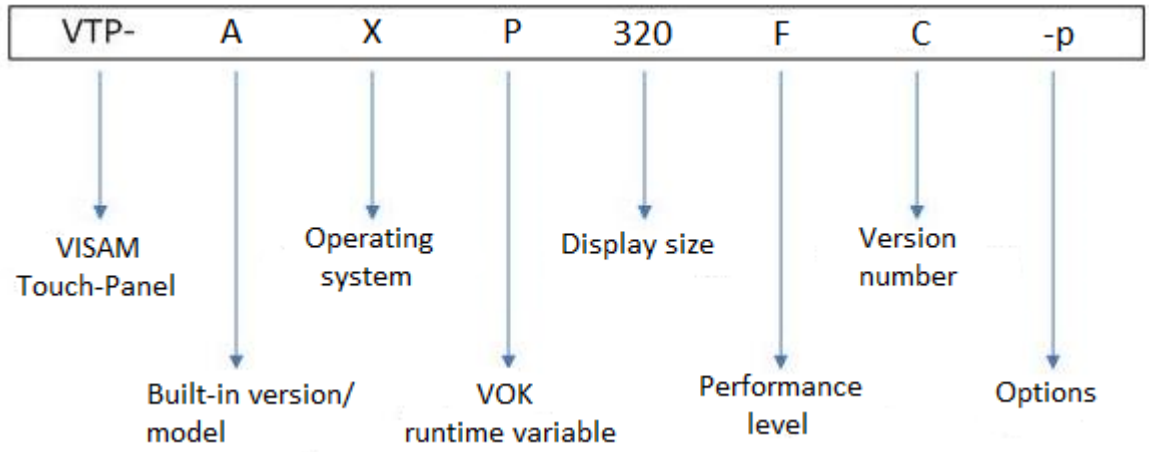


Figure 1 The Information of the article number

3 Specification

3.1 System data

VTP-AX 328
Processor (CPU): Intel Core i7 3517UE 1,7GHz
RAM: 4GB DDR3 1600MHz SDRAM
Data memory: 64GB SSD
LAN: Intel 100/1000 Base-T Ethernet controller, IEEE 802.3

3.2 Interfaces

VTP-AX 328
Serial interface: 10/100/1000 Base-T x 2,
RS-232 x 2, 1 x VGA, 1 x HDMI
Network (LAN): 2 x RJ-45 Ethernet
USB: 2 x USB 2.0, 2 x USB 3.0
Other: 2 x Audio (Line-out, Mic-In)
Extensions: 1 x MiniPCIe /mSATA
Speakers: 2 x 3W

3.3 LCD Display

VTP-AX 328
Size: 32"
Brightness: 300 cd/m²
Maximum amount of colors: 16,7 Mio
Viewing angle (H/V): 178/178°
Display Type: TFT LCD
Resolution: 1920 x 1080 Pixel
Backlight: LED

3.4 Touchscreen

(VTP-AX 328 either has a Projected Capacitive Touch Panel or glass panel)

Type:	PCT Projected Capacitive	Glass Panel
Translucent:	90% (± 2%)	90%
Multi touchable:	yes	no
Surface:	foil	glass

3.5 Power Supply

Supply Voltage: 100~240 V, 3.15 A Max. 50~60Hz
Electricity Demand: 95W (typical), 105 W (max.)

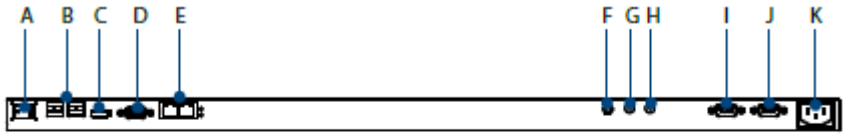
3.6 Integrated Software

Operating system: Microsoft Windows 8.1 Embedded
HMI/SCADA: VBASE Pro-RT

The integrated software is embedded software that may be only operated on the delivered hardware system!

3.7 Interface Arrangement

The arrangements of the interfaces are depicted in the following figures:



A. Power Switch	E. 2 x LAN	I. COM1
B. USB 3.0/2.0	F. Antenna Port	J. COM2
C. HDMI	G. Line-out	K. DC in
D. VGA	H. Mic-in	

Figure 2 Interface arrangement VTP-AX 328

3.8 Connection Assignment

3.8.1 Power Supply

See power supply (chapter 3.5)

3.9 Power Switch

VTP-AX 328 does have a power switch (see figure 2).

3.10 Environmental Conditions

Environmental (while operating): 0 ~ 40°C
Storage Temperature: -20 ~ 60°C
Humidity: 40°C @ 10 ~ 95% relative (non-condensing)
Vibration Resistance: 0,5G
Shock: 10 G peak acceleration (11 ms)

3.11 Safety

Safety front side: IP65 / NEMA 4
UL
CCC
BSMI
CE
FCC Class A

4 Software-Settings

All made changes are identical to every other Windows 8 version and can be executed in the same way as on any "normal" PC.

4.1 Setup / Changing of the network (IP)-address

To change the network-address of the device, follow these instructions:
Open the windows start-menu >> System control >> Network and Internet >> Network- and Sharing Center. There choose the corresponding network and edit the properties of the network.

In the now opened property-window enter the desired "IP-address", subnet mask, and if needed the "default gateway". In the second register "Name Server" the IP-address of the "DNS-Server" can be entered. Confirm the input by clicking "OK".
Exit the window "Network and Internet".

4.2 Remote control of the device via network

To remote control the device for a comfortable setup and maintenance, for example the application „VNC-Server" can be installed. A license free possibility would be "Efron VNC".

On the PC-system from which you want to connect to the panel, a compatible VNC-Viewer (e.g. UltraVNC, VNCviewer) must be installed and a network connection must be established.

The VNC-Server should be secured with a default-password. At the connection establishment the password will be queried.

Figure 3 VNC-Connection Establishment Remote Control

After the successful connection establishment the surface of the device can be used in a window (the VNC-Viewer) on the PC-system.

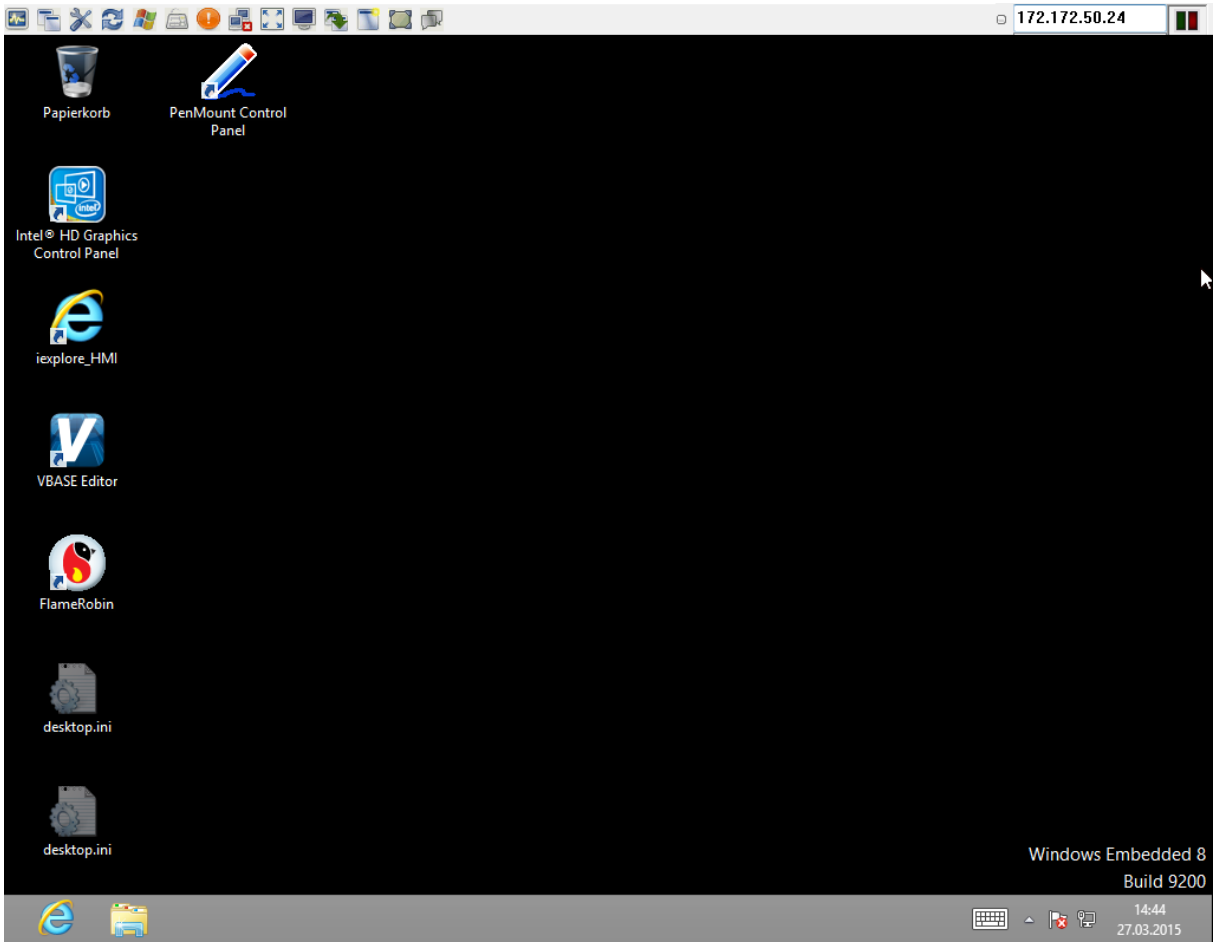


Figure 4 Remote Desktop (Win 8)

Within this window the VTP (depending on the settings of the VNC-connection) can be remotely controlled with the mouse and the keyboard.

4.3 Touchscreen calibration

It is possible to recalibrate the Touchscreen controller of the VTP from time to time. A recalibration is needed if the mouse cursor is not displayed at the touch point, but at a different position.

To calibrate select the icon „PenMount Control Panel".

A window opens where the according device can be selected:

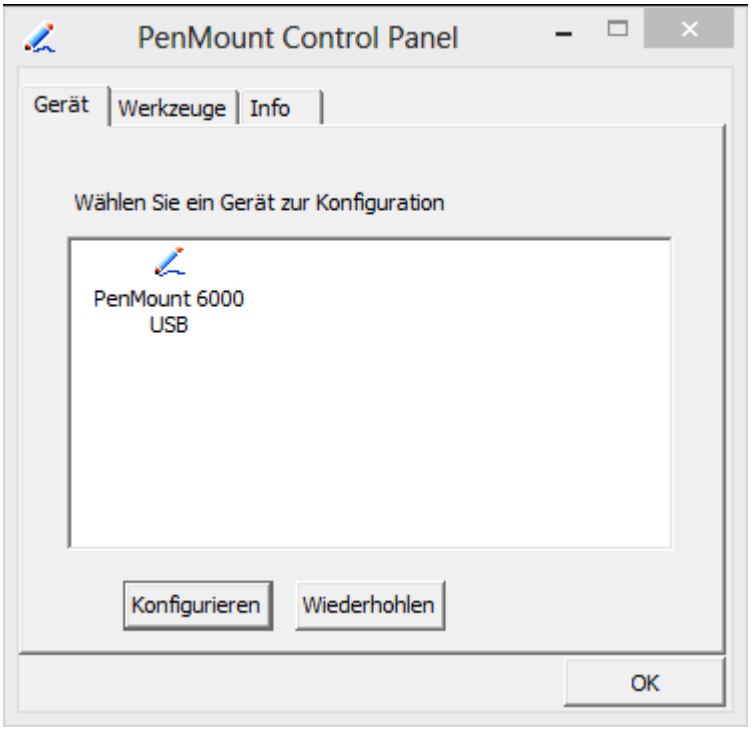


Figure 5 Penmount Control Panel

Here select the device that should be calibrated and confirm the choice by clicking the „configure" button. A new calibration window will open up:

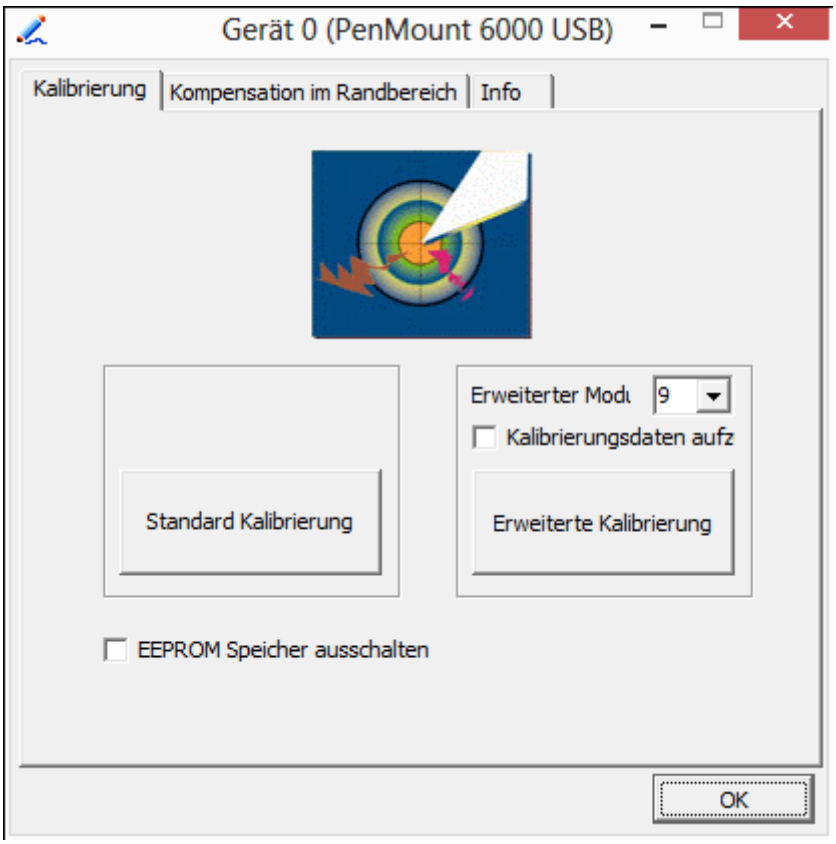


Figure 6 Calibration window

The two calibration options „Standard Calibration" and „Advanced Calibration" are offered here. If the "Advanced Calibration" is chosen, the amount of queried calibration points can manually be set with the drop-down menu and also by clicking the checkbox, the calibration data can be logged. At both calibration methods points will be queried successively and must be touched on the touchscreen to recalibrate the device.

5 Appendix

5.1 Fuse

These VTP are protected against electrical damage by a fuse.

The fuse cannot be changed readily, as trained personnel and soldering skills are required.

The fuse is triggered if a voltage > 32VDC is applied.

5.2 PIN-Assignment of the serial interface

5.2.1 Serial interface RS-232 (COM1/COM2)

Pin	RS232
1	DCD
2	RX
3	TX
4	DTR
5	GND
6	DSR
7	RTS
8	CTS
9	RI

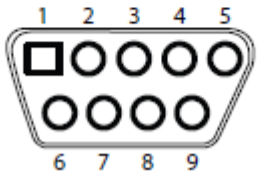


Figure 7 RS-232 (COM1/COM2)

5.2.2 USB Connection

Pin	Signal	Description
1, 10	USB VBUS	USB Power output ,USB2.0 5V/0.5A and USB3.0 5V/0.9A
2, 11	USB_P-	USB2.0 date -
3, 12	USB_P+	USB2.0 date +
4,13	GND	Ground for Power return
5	SSRX-	USB3.0 RX -
6	SSRX+	USB3.0 RX +
7	GND_DRAIN	Ground for signal return
8	SSTX-	USB3.0 TX -
9	SSTX+	USB3.0 TX +

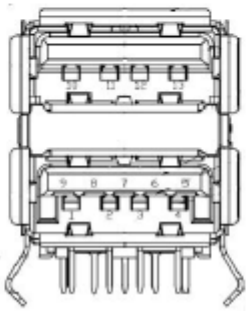


Figure 8 PIN-assignment USB connection

5.3 Dimension and Cutout

5.3.1 Weight

Weight: 18kg

5.3.2 Cutout

VTP-AX 328
Cutout: 786 x 481 x 62,5 mm (width x height x depth)
Maximum mounting panel thickness: < 6mm

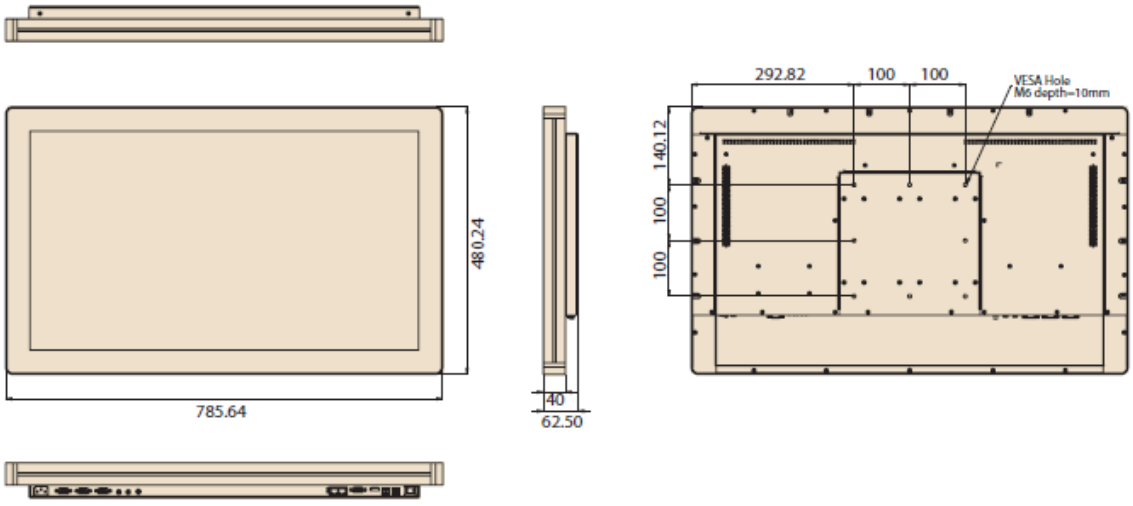


Figure 9 Cutout VTP-AX 328

5.4 Accessories

For VTP-AX 157/158 there are 4 possible additional extension-/accessory-modules:

- **2MP Camera module**

  Interfaces: USB (cable length: 50cm)
  Frame rate: 500 Lux Frame Rate:
  640 x 480 @ 30 fps max
  1280 x 1024 @ 15 fps max
  1600 x 1200 @ 15 fps max
  45 Lux Frame Rate:
  640 x 480 @ 4 fps max
  1280 x 1024 @ 4 fps max
  1600 x 1200 @ 4 fps max
  Video format: YUY2, MJPG

Figure 10 2-MP digital camera

- **RFID Scanner**

  Interface: USB (cable length: 50cm)
  Frequency: 13,56MHz
  Read mode: ISO 15693, ISO 14443A, ISO 14443B, ISO 18000-3 Mode 1, Felica
  Card mode: Simulates ISO 14443A mode
  P to P mode: NFCIP-1, NFCIP-2, ISO 18092, 848 kbps to 106 kps
  Read range: 3cm ± 1cm

Figure 11 RFID Scanner

- **Smart Card Reader**

Interface:	USB (cable length: 50cm)
Card Acceptor:	User card Friction Type (ID-1)
Card Reader:	CPU card – Complies with ISO7816-1,2,3,T=1 and T=0 protocol
LED:	Dual color LED indicator. Complies with PC/SC version 1.0 standards

Figure 12 Smart card reader

- **Magnet card reader**

Interface:	USB (cable length: 50cm)
Track Configuration:	TRACK 1/I ATA /210 bpi / 79 Alphanumeric Characters TRACK 2/ ABA /75 bpi / 40 Numeric Characters TRACK 3/ Thrift / 210 bpi/ 107 Numeric Characters
Card Standard:	ANSI, ISO, and ABA
Read Speed:	7cm/s ~ 152cm/s
Magnetic Head Life:	1,000,000 mal (ISO test standard)

Figure 13 Magnet card reader

5.4 Illustration Directory