

## TX500 HMI / PLC Series

### 13.3" Display - CODESYS V3 PLC with TARGET and WEB VISU High-Quality Metal Housing with a Resistive Touch Screen TX513-P3CV01



- 13.3" TFT wide screen color display
- LED backlight
- 1280 x 800 pixel resolution
- 64 K colors
- Resistive touch screen
- 2 RJ45 Ethernet ports with integrated switch
- 1 serial interface (RS232, RS485, RS422)
- 2 USB host ports
- 1 SD card slot

<b>Type designation</b>	TX513-P3CV01
Ident-No.	6828107
<b>Display / Touch</b>	
Display	TFT colour
Touchscreen	Resistive, Plastic film front
Active screen area	13.3"
Resolution (pixels)	1280 × 800 WXGA
Format	16:9
Brightness	300 Cd/m <sup>2</sup> typ.
dimnable	yes
<b>Controller</b>	
Processor	ARM Cortex A8, 1 GHz
Memory	256 MB
Add-on memory	1x SD card slot, 2 USB host ports
Real time clock	Yes (battery-buffered)
<b>PLC data</b>	
Programming	CODESYS V3
Released for CODESYS version	V 3.5.8.10
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interface	Ethernet
Program memory	20000 kByte
Non-volatile memory	16 kByte
<b>Interfaces</b>	
Onboard	2 x RJ45 Ethernet, 1 x RS232/485/422, 2 x USB host, 1 x power supply, 2 x expansion slot
Onboard for selection	CANopen Master (via extension module)
Ethernet	2 x 10/100 Mbit
Protocols	PROFINET (Controller/Master) EtherNet/IP (Scanner/Master) Modbus TCP (Master/Slave)
Fieldbus	Modbus RTU (Master/Slave) CANopen (Master)
USB	2 × host ports
Serial	RS232 / RS485 / RS422
Expansion slot	2 x plug-in
<b>Power supply</b>	
Rated value	24 VDC, max. 1.2 A
Admissible voltage range	10...32 VDC

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**General data**

Operating ambient conditions	0...50 °C, 5...85 % rel. humidity, non-condensing
Storage ambient conditions	-20...70 °C, 5...85 % rel. humidity, non-condensing
Approvals	CE RoHS cULus
Ex approval	Haz. Loc. Class I, Division 2, Groups A,B,C and D
Protection class	IP66 front, IP20 rear NEMA type: 12/4X

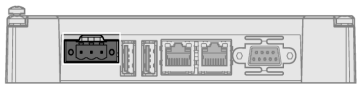
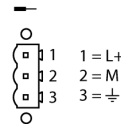
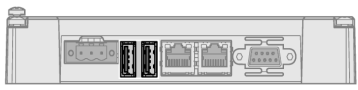



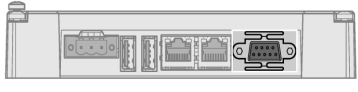
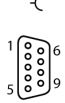
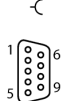
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**Dimensions**

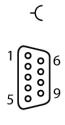
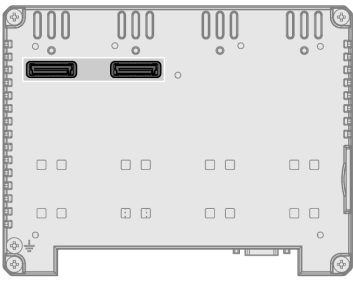

Front (W x H x D)	336 x 267 x 60 mm
Cut-out (W x H)	326 x 256 mm
Mounting depth	56 + 4 mm
Weight	approx. 2.6 kg

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**Connection and pin assignment**

	<p><b>Power Supply</b></p> <p>The power supply connector is delivered with each device. 7/8" male receptacle for enclosure (example): RSF 40-1M W/LN Ident. no. U-36648</p>	<p>Pin Assignment</p>  <p>1 = L+ 2 = M 3 = 0</p>
	<p><b>USB Interfaces</b></p>	<p>Pin Assignment</p>  <p>1 = 5 VDC 2 = D - 3 = D + 4 = GND</p>
	<p><b>Ethernet Ports</b></p> <p>The Ethernet ports are connected to each other via an internal switch.</p> <p>Ethernet cordsets (examples):</p> <p><b>RJ45-RJ45:</b> RJ45S RJ45S 441-2M Ident. no. U-06842</p> <p><b>RJ45-M12 D-code:</b> RSSD RJ45S 441-2M Ident. no. U3-00525</p> <p><b>RJ45-M8:</b> PSGS 4M RJ45S 4413-2M Ident. no. U2-24205</p> <p><b>RJ45-M12 D-code female receptacle:</b> RJ45S FKSDED 441-1M Ident. no. U-03569</p>	<p>Pin Assignment</p>  <p>1 = TX + 2 = TX - 3 = RX + 4 = n.c. 5 = n.c. 6 = RX - 7 = n.c. 8 = n.c.</p>
	<p><b>Serial Interface</b></p> <p>The serial interface can be operated either as RS232, RS485 or RS422. The adjacent wiring diagrams show the respective pin assignments.</p> <p><b>Attention:</b> In the RS485 mode, pins 3 and 4 as well as 7 and 8 must be externally connected!</p>	<p>Pin Assignment in RS232 Operating Mode</p>  <p>1 = GND 2 = n.c. 3 = TX 4 = RX 5 = n.c. 6 = +5V output 7 = CTS 8 = RTS 9 = n.c.</p> <p>Pin Assignment in RS485 Operating Mode</p>  <p>1 = GND 2 = n.c. 3 = A 4 = B 5 = n.c. 6 = +5V output 7 = B 8 = B 9 = n.c.</p> <p>Pin Assignment in RS422 Operating Mode</p>

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		 <ul style="list-style-type: none"> <li>1 = GND</li> <li>2 = n.c.</li> <li>3 = TX -</li> <li>4 = RX -</li> <li>5 = n.c.</li> <li>6 = +5V output</li> <li>7 = RX +</li> <li>8 = TX +</li> <li>9 = n.c.</li> </ul>
	<p><b>Ports for Plug-in Modules</b></p>	
	<p><b>SD Card Slot</b> SD card</p>	

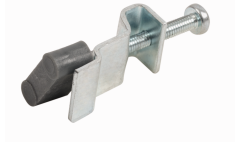
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**Accessories**

Type code	Ident-No.	Description	Dimension drawing
TX-IO-XX03	6828201	Plug-in I/O module — 20 DI, 12 DO, 4 AI (U/I/RTD/TC), 4 AO (U/I)	
TX-IO-DX06	6828203	Plug-in I/O module — 8 DI, 6 DO, 1 relay output (NO)	
TX-CAN	6828210	Plug-in CANopen interface, 9-pin SUB-D male connector	
TX-RS485	100002598	Plug-in interface for RS485/RS422, 9-pin SUB-D female connector	
TX-RS232	100002599	Plug-in interface for RS232, 9-pin SUB-D female connector	

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**Accessories**

Type code	Ident-No.	Description	Dimension drawing
TX500-MOUNT-13	6828222	TX500 mounting bracket and power connectors for 13" devices	

**Function accessories**

Type code	Ident-No.	Description	Dimension drawing
TX-PSC	100002938	Power Supply Male Connector for TX HMI Devices	