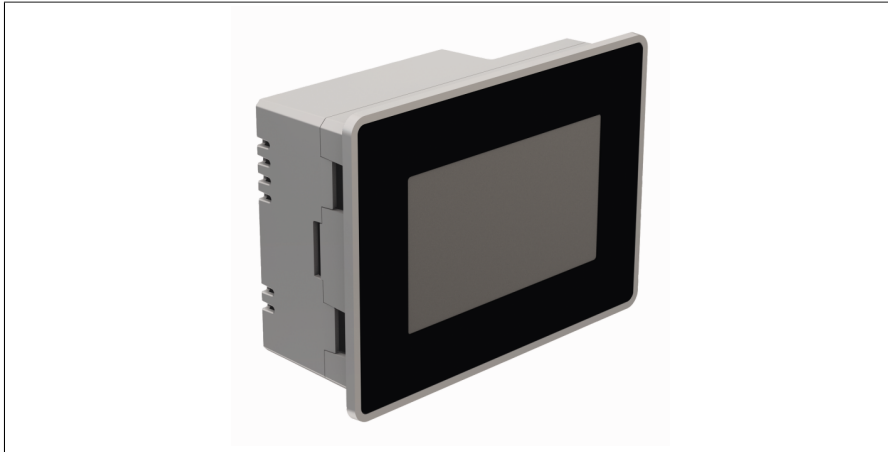


# TX500 HMI / PLC Series

## 4.3" Display - CODESYS V3 PLC with TARGET and WEB VISU

### High-Quality Metal Housing with a Resistive Touch Screen

#### TX504E-P3CV01



- 4.3" TFT wide screen color display
- LED backlight
- 480 x 272 pixel resolution
- 64 K colors
- Resistive touch screen
- 2 RJ45 Ethernet ports with integrated switch
- 1 serial interface (RS232, RS485, RS422)
- 1 USB host port
- 1 SD card slot

|      |               |
|------|---------------|
| Type | TX504E-P3CV01 |
| ID   | 6828101       |

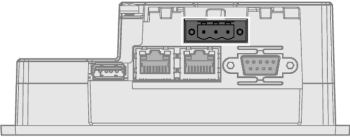
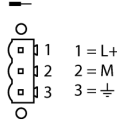
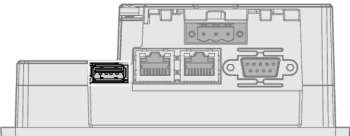

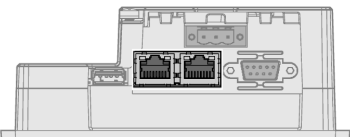

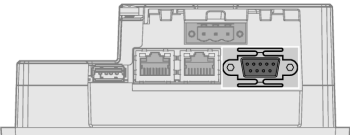
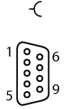
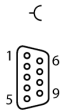
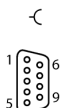
|                      |                               |
|----------------------|-------------------------------|
| <b>Display/touch</b> |                               |
| Display              | TFT colour                    |
| Touchscreen          | Resistive, Plastic film front |
| Active screen area   | 4.3"                          |
| Resolution (pixels)  | 480 × 272 WQVGA               |
| Format               | 16:9                          |
| Brightness           | 150 Cd/m <sup>2</sup> typ.    |
| dimnable             | Yes                           |

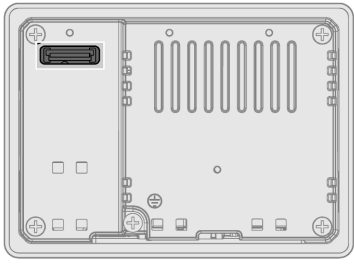
|                   |                                     |
|-------------------|-------------------------------------|
| <b>Controller</b> |                                     |
| Processor         | ARM Cortex A8, 600 MHz              |
| Memory            | 128 MB                              |
| Add-on memory     | 1 x SD card slot, 1 x USB host port |
| 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                           |
| Non-volatile memory          | 16 kByte                           |

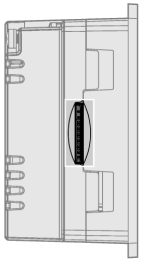
| Interfaces                   |   |
|------------------------------|---|
| Onboard                      | 2 × RJ45 Ethernet, 1 × RS232/485/422, 1 × USB host, 1 × power supply, 2 × expansion slot  |
| Onboard for selection        | CANopen Master (via extension module)   |
| Ethernet                     | 2 x 10/100 Mbit   |
| Protocols                    | PROFINET (Controller/Master)<br>EtherNet/IP (Scanner/Master)<br>Modbus TCP (Master/Slave) |
| Fieldbus                     | Modbus RTU (Master/Slave)<br>CANopen (Master)   |
| USB                          | 1 × host port   |
| Serial                       | RS232 / RS485 / RS422   |
| Expansion slot               | 1 x plug-in   |
| Power supply                 |   |
| Rated value                  | 24 VDC, max. 0.55 A   |
| Admissible voltage range     | 10...32 VDC   |
| 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<br>RoHS<br>cULus   |
| Ex approval                  | Haz. Loc. Class I, Division 2, Groups A,B,C and D   |
| Protection class             | IP66 front, IP20 rear<br>NEMA type: 12/4X   |
| Dimensions                   |   |
| Front (W x H x D)            | 147 x 107 x 60 mm   |
| Cut-out (W x H)              | 136 x 96 mm   |
| Mounting depth               | 56 + 4 mm   |
| Weight                       | approx. 1 kg  |

## Connection and pin assignment

|   |  |  |
|---|--|--|
|    | <p><b>Power Supply</b></p> <p>The power supply connector is delivered with each device.</p> <p>7/8" male receptacle for enclosure (example):<br/>RSF 40-1M W/LN<br/>Ident. no. U-36648</p>   | <p>Pin Assignment</p>  <p>1 = L+<br/>2 = M<br/>3 = <math>\frac{0}{-}</math></p>   |
|    | <p><b>USB Interface</b></p>  | <p>Pin Assignment</p>  <p>1 = 5 VDC<br/>2 = D -<br/>3 = D +<br/>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><br/>RJ45S RJ45S 441-2M<br/>Ident. no. U-06842</p> <p><b>RJ45-M12 D-code:</b><br/>RSSD RJ45S 441-2M<br/>Ident. no. U3-00525</p> <p><b>RJ45-M8:</b><br/>PSGS 4M RJ45S 4413-2M<br/>Ident. no. U2-24205</p> <p><b>RJ45-M12 D-code female receptacle:</b><br/>RJ45S FKSDED 441-1M<br/>Ident. no. U-03569</p> | <p>Pin Assignment</p>  <p>1 = TX +<br/>2 = TX -<br/>3 = RX +<br/>4 = n.c.<br/>5 = n.c.<br/>6 = RX -<br/>7 = n.c.<br/>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>PLEASE NOTE:</b> In 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<br/>2 = n.c.<br/>3 = TX<br/>4 = RX<br/>5 = n.c.<br/>6 = +5V output<br/>7 = CTS<br/>8 = RTS<br/>9 = n.c.</p> <p>Pin assignment in RS485 operating mode</p>  <p>1 = GND<br/>2 = n.c.<br/>3 = A<br/>4 = A<br/>5 = n.c.<br/>6 = +5V output<br/>7 = B<br/>8 = B<br/>9 = n.c.</p> <p>Pin assignment in RS422 operating mode</p>  <p>1 = GND<br/>2 = n.c.<br/>3 = TX -<br/>4 = RX -<br/>5 = n.c.<br/>6 = +5V output<br/>7 = RX +<br/>8 = TX +<br/>9 = n.c.</p> |

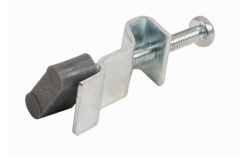


**Port for Plug-in Module**




**SD Card Slot**  
SD card

**Accessories**

| Type code      | Ident-No. |  | Dimension drawing   |
|----------------|-----------|--|---|
| TX500-MOUNT-07 | 6828220   | TX500 mounting bracket and power connectors for 4–7" devices |  |

**Function accessories**

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