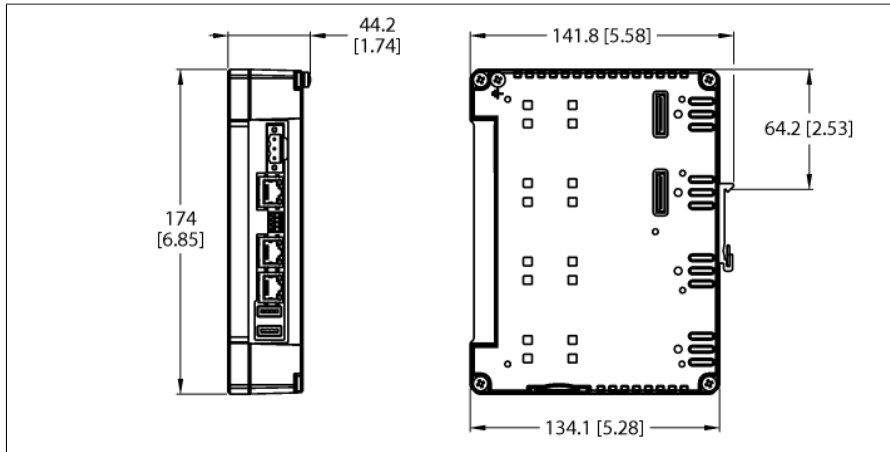


TX700 HMI/PLC Series

Quad-Core IOT Gateway — CODESYS V3 PLC with WEB VISU

Large Housing, 3 × RJ45 Ethernet

TX700Q-P3WV01



Type	TX700Q-P3WV01
ID	100009355

Controller	
Processor	ARM Cortex A9, Quad core 800 MHz
Memory	8 GB Flash
RAM memory	2048 MB
Add-on memory	1x SD card slot, 2 USB host ports
Real time clock	yes (battery-backed)

PLC data	
Programming	CODESYS V3
Released for CODESYS version	V 3.5.12.10
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interface	Ethernet
Program memory	20000 kByte
Non-volatile memory	63 kByte

Interfaces	
Onboard	3 × RJ45 Ethernet, 1 × RS232/485/422, 2 × USB host, 1 × power supply, 2 × expansion slot
Onboard for selection	CANopen Master (via extension module)
Ethernet	ETH0 - 10/100/1000 Mbit ETH1 - 10/100 Mbit ETH2 - 10/100 Mbit
Protocols	PROFINET (Controller/Device) EtherNet/IP (Scanner/Adapter) Modbus TCP (Server/Client) EtherCAT (MainDevice)
Fieldbus	Modbus RTU (Server/Client) CANopen (Server)
USB	2 × host ports
Serial	RS232 / RS485 / RS422
Expansion slot	Two slots for up to four plug-in modules

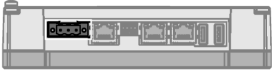


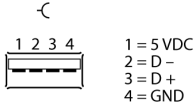
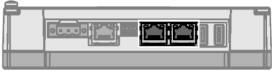

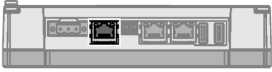

- 3 RJ45 Ethernet ports with 10/100 Mbit
- 1 serial interface (RS232, RS485, RS422)
- 2 USB host ports
- 1 SD card slot

Power supply	
Rated value	24 VDC, max. 0.55 A
Admissible voltage range	10...32 VDC

General data	
Operating ambient conditions	-20...60 °C, 5...85 % relative humidity, non-condensing
Storage ambient conditions	-30...70 °C, 5...85 % relative humidity, non-condensing
Approvals	CE cULus
Ex approval	ATEX IEC Ex Haz. Loc. Class I, Division 2, Groups A, B, C and D
Protection class	IP20

Dimensions	
Front (W x H x D)	44 x 174 x 144 mm
Weight	approx. 0.65 kg

Connection and pin assignment

	<p>Power Supply</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 = 24 VDC 2 = 0V 3 = $\frac{1}{2}$</p>
	<p>USB Interface</p>	<p>Pin Assignment</p>  <p>1 = 5 VDC 2 = D - 3 = D + 4 = GND</p>
	<p>Ethernet</p> <p>Ethernet ports ETH1 and ETH2 (10/100 Mbit)</p> <p>The Ethernet ports are independent but can be bridged with ETH0.</p> <p>Ethernet cordsets (examples):</p> <p>RJ45-RJ45: RJ45S RJ45S 441-2M Ident. no. U-06842</p> <p>RJ45-M12 D-code: RSSD RJ45S 441-2M Ident. no. U3-00525</p> <p>RJ45-M8: PSGS 4M RJ45S 4413-2M Ident. no. U2-24205</p> <p>RJ45-M12 D-code female receptacle: RJ45S FKSDDED 441-1M Ident. no. U-03569</p>	<p>Pin Assignment</p>  <p>12345678</p> <p>1 = TX + 2 = TX - 3 = RX + 4 = n.c. 5 = n.c. 6 = RX - 7 = n.c. 8 = n.c.</p>
	<p>Ethernet</p> <p>Ethernet port ETH0 (10/100 Mbit)</p>	<p>Pin Assignment</p>  <p>12345678</p> <p>1 = TX + 2 = TX - 3 = RX + 4 = n.c. 5 = n.c. 6 = RX - 7 = n.c. 8 = n.c.</p>




Serial Interface


The serial interface can be operated either as RS232, RS485 or RS422. The adjacent wiring diagrams show the respective pin assignments.

PLEASE NOTE: In RS485 mode, pins 1 and 2 as well as 3 and 4 must be externally connected!


Pin assignment in RS232 operating mode

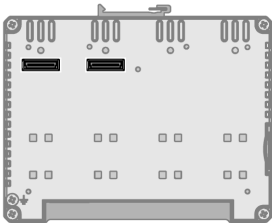
- 
- 1 = RX
 - 2 = TX
 - 3 = CTS
 - 4 = RTS
 - 5 = +5 VDC output
 - 6 = GND
 - 7 = n.c.
 - 8 = shield

Pin assignment in RS485 operating mode

- 
- 1 = B- (RX-)
 - 2 = A- (TX-)
 - 3 = B+ (RX+)
 - 4 = A+ (TX+)
 - 5 = +5 VDC output
 - 6 = GND
 - 7 = n.c.
 - 8 = shield

Pin assignment in RS422 operating mode

- 
- 1 = RX-
 - 2 = TX-
 - 3 = RX+
 - 4 = TX+
 - 5 = +5 VDC output
 - 6 = GND
 - 7 = n.c.
 - 8 = shield



Ports for Plug-in Modules



SD Card Slot

SD card

Accessories

Type code	Ident-No.		Dimension drawing
TX-LTE-WLAN	100025179	Plug-in LTE and Wi-Fi modem with LTE/UMTS/GSM, Wi-Fi and GNSS	

Function accessories

Type code	Ident-No.		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-DP-S	100010167	Plug-in PROFIBUS DP slave interface, 9-pin SUB-D female connector	
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	
TX-PSC	100002938	Power Supply Male Connector for TX HMI Devices	