

# TURCK

Your Global Automation Partner

## TX HMI, PLC and Edge Controllers Overview

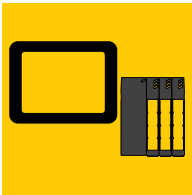


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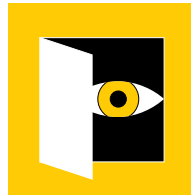
# TX Operator Panels – Efficient Control and Visualization

The five product lines of the Turck TX operator panel series provide tailor-made solutions for the control (Programmable Logic Controller PLC) and operation (Human Machine Interface HMI) of simple and medium sized machines and systems.



## HMI/PLC – Your benefit

- CODESYS-V3-PLC and HMI in one panel
- Compact and powerful all-in-one solution



## More detailed view

- Brilliant TFT displays
- 4" to 21" screen diagonals
- Resistive or capacitive touch
- Gesture control



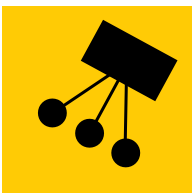
## Panel diversity

- Wide range of options
- Always the right panel for the best price/performance ratio



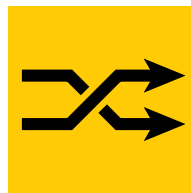
## Highly communicative PLC

- CODESYS PLC as the core piece for your system solutions
- Numerous Ethernet/fieldbus protocols



## More Ethernet ports

- Three independent Ethernet ports
- Physically separated networks
- Internal bridge function for switch functionality



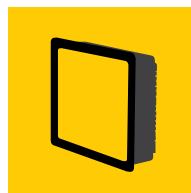
## Plug-in modules

- Digital and analog I/O signals
- CAN interface
- Additional serial interfaces RS485/RS232



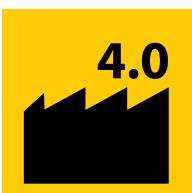
## Visualization with TX VisuPro

- Communication with up to eight controllers at the same time
- Data gateway between PLCs
- PDF, videos, IP cameras, audit trail



## Modern hardware

- Scalable system performance
- Glass or plastic film front
- Capacitive or resistive touch
- Metal or plastic housing



## I4.0 + IIOT Ready

- Turck Cloud connection
- OPC UA server/client
- VNC client/server
- MQTT



## More approvals

- cULus
- DNV GL ship approval
- For the Ex area: UL Class 1 Div. 2, ATEX, IEC Ex

# Portfolio TX Series

## TX100

Solid HMI operator panels for simple visualization tasks at an optimized good price-performance ratio.



## TX207

HMI/PLC for medium applications featuring data exchange with field devices such as I/O modules, valves, and drives; the TX207 is characterized by the large number of onboard interfaces for Ethernet, RS232, RS485, and CAN.



### Application Area

Function	HMI	HMI or HMI/PLC
Control	–	CODESYS V3
Variants	TX104 TX107, TX110	TX207
Visualization	TX VisuPro	CODESYS TargetVisu (Default) TX VisuPro (Optional)

### Display

Diagonal	4...10"	7"
Touch	Plastic film front, resistive touch	Plastic film front, resistive touch

### System

Controller	Single-core up to 1 GHz	Dual-core 800 MHz
Operating system	RT Linux	RT Linux

### General Data

Housing	Robust plastic housing	Robust plastic housing
Temperature range	0...50 °C	0...50 °C
Approvals	CE, cULus	CE, cULus
Approvals for Ex areas	UL Class 1 Div. 2	–





# Portfolio TX Series

## TX700

For larger applications requiring data exchange with more field devices, including with different protocols on different interfaces; the TX700 devices are also ideal for demanding visualization tasks.



## TXF700

The TXF700 product series of HMI operator panels offers complete all-round IP67 protection. This enables flexible mounting concepts without the need for protective housing. In this way, modern operating concepts from the world of smartphones and tablets can be transferred to today's harsh world of industrial automation.



Application Area		
Function	HMI or HMI/PLC	HMI or HMI/PLC
Control	CODESYS V3	CODESYS V3 optional
Variants	TX705 TX707, TX710 TX715, TX721	TXF705 TXF707, TXF710 TXF715, TXF721
Visualization	CODESYS TargetVisu (Default) TX VisuPro (Optional)	TX VisuPro (Default) CODESYS PLC/Visu (Optional)
Display		
Diagonal	5...21"	5...21"
Touch	Glass front, capacitive touch, multi-touch and gesture control	Glass front, capacitive touch, multi-touch and gesture control
System		
Controller	Single to quad-core 800 MHz	Single to quad-core 800 MHz
Operating system	RT Linux	RT Linux
General Data		
Housing	High-quality metallic housing	Metal housing, fully IP67 protected
Temperature range	-20...60 °C	-20...60 °C
Approvals	CE, cULus, DNV GL	CE, cULus
Approvals for Ex areas	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2



# Portfolio TX Series

## TX800

With more powerful built-in quad-core processing, the TX800 family of HMIs and HMI/PLCs come in a range of display sizes for industrial applications. These high-performance devices offer a high-quality metal housing and glass front with capacitive touch.



### Application Area

Function	HMI or HMI/PLC
Control	CODESYS V3 optional
Variants	TX805 TX807, TX810 TX815, TX821
Visualization	CODESYS TargetVisu (Default) TX VisuPro (Optional)

### Display

Diagonal	5...21"
Touch	Glass front, capacitive touch, multi-touch and gesture control

### System

Controller	Quad-core 1.6 GHz
Operating system	RT Linux

### General Data

Housing	High-quality metallic housing
Temperature range	-20...60 °C
Approvals	CE, cULus, DNV GL
Approvals for Ex areas	UL Class 1 Div. 2, ATEX, IEC Ex



# Portfolio TX Series

## TX700 Edge Controller

These IIoT gateways come with Turck's CODESYS V3 or TX VisuPro software and offer single to quad-core processing. They are ideal for mounting in a control cabinet when no additional display is needed.



## TX800 Edge Controller

Quad-core processing makes these edge controllers ready for more complex applications when no display is needed. They are enclosed in a high-quality metal housing and ready to install in a control cabinet. Turck's CODESYS V3 or TX VisuPro software makes programming easy.



### Application Area

Function	PLC	PLC
Control	CODESYS V3	CODESYS V3
Variants	TX700S TX700D TX700Q	TX800M TX800L
Visualization	CODESYS or TX VisuPro WebVisu	CODESYS or TX VisuPro WebVisu

### Display

Diagonal	No Display	No Display
Touch	No Display	No Display

### System

Controller	Single to Quad-Core 800 MHz	Quad-Core 1.6 GHz
Operating system	RT Linux	RT Linux

### General Data

Housing	High-quality metallic housing	High-quality metallic housing
Temperature range	-20...60 °C	-20...60 °C
Approvals	CE, cULus, DNV GL	CE, cULus, DNV GL
Approvals for Ex areas	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex



# Use Cases and Application Areas

Areas of application and application possibilities for the TX operator panels can be found in automation technology where processes need to be monitored and controlled. The following five examples show a cross-section of typical applications.



## Monitor Logistics Operations

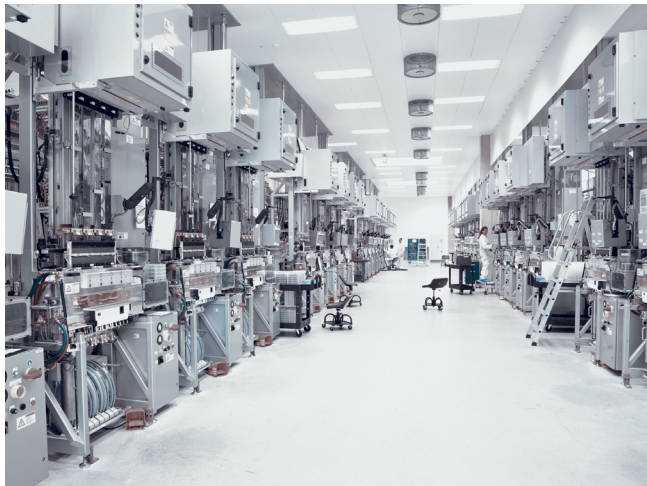
Monitor and control your logistics and warehouse processes with Turck's range of HMI/PLC devices. From packaging and distribution applications to the control of loading ramps and roller doors, users will improve efficiency with Turck. Critical conditions are clearly visible to workers via alarms such as flashing symbols or color changes. Quad-core processing on the TX800 family provides even faster processing power for more complex applications. Step-by-step work processes can be illustrated visually as a sequence of pictures or drawings.



## More Data for Systems and Assemblies

Many machines and assemblies such as pump controls are still operated in the traditional way using switches, buttons and indicator lights. Modern, compact HMI/PLC solutions offer added value. Operating data such as pressure, hour meters, or maintenance intervals can be shown and monitored more easily with an HMI. The ability to create user groups allows different views and information to be made available to various personnel such as operations or service technicians. Parameters can also be freely adjusted within specified ranges at any time.

## Use Cases and Application Areas



### Ideal for Compact Machines in Food and Beverage

From mixers to dosing feeders to stirring units in food and beverage applications, Turck offers a range of HMI/PLC sizes that are ideal for small footprints. Choose from 4- to 21-inch devices to meet the needs of your application. Advantages include accessing recipes from a predefined list that can be stored and easily accessed. Plus, changes and optimizations can be made and saved during operation. Such adjustments can also be logged transparently in combination with user administration. Special variants are available with a stainless steel front, which fulfill the protection rating up to IP69K.



### Supports the Demand for Modular Machines

The trend toward the modularization of machines and plants helps OEMs to standardize plants and optimize processes. Turck offers a range of flexible HMI/PLC options so users can create a "kit" of independent modules and optional accessories that work together. Whether the individual modules or system parts require an HMI or HMI/PLC, or are to be controlled by other modules, users are given the flexibility to decide according to the level of complexity. Turck also offers optional PLCs or Field Logic Controllers without a display. Cost benefits and increased efficiency are just two benefits of the modularization of machines.



### Quality Assurance in Pharma Manufacturing

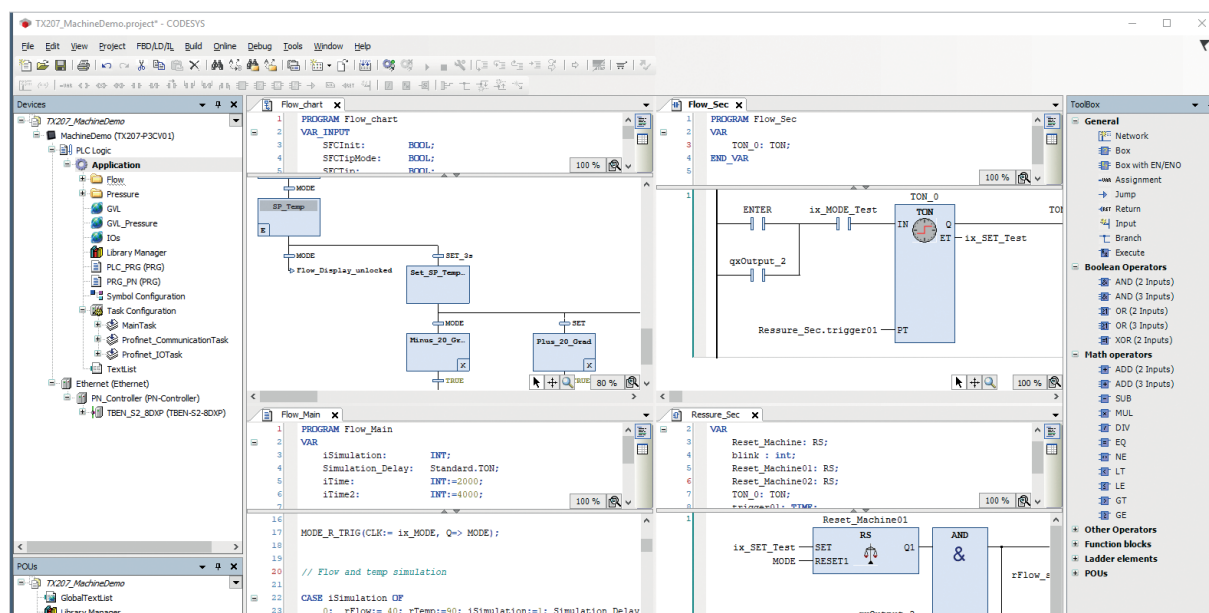
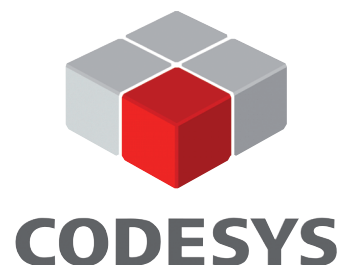
HMIs can play an important role in the pharmaceutical industry by reducing errors and alerting personnel to problems before they happen. The TX700 and TX800 families help users stay connected by serving as a data gateway. They can store videos and PDFs plus connect to IP cameras. The operating software also provides an audit trail, historical data and recipe management, helping to ensure quality control and data integrity. Communication with up to eight controllers at the same time is possible.



# CODESYS PLC

The built-in control functionality can be programmed with CODESYS V3 according to the IEC 61131-3 standard. The user can select any of the standard programming languages available; LD, FBD, IL, ST, CFC, and SFC. All supported Ethernet and fieldbus protocols can be configured via the software that allows real object-oriented PLC programming. The following figure shows four possible programming languages:

- Top left: Sequential function chart (SFC)
- Top right: Ladder diagram (LD)
- Bottom left: Structured text (ST)
- Bottom right: Function block diagram (FBD or FUP)



In addition to the standard libraries that are already available in the CODESYS setup, Turck supports users with their own libraries and function blocks for IO-Link and the Turck BL ident RFID system. CODESYS also supports three different visualization options.

- TargetVisu: Runs locally on the TX operator panel.
- WebVisu: Runs on the IP address of the device, it can be accessed remotely from a PC or mobile device.

- CODESYS Internal Visualization: Runs within the CODESYS Programming environment.

## Communication possibilities

The CODESYS controller supports the server and client functions shown in the table. The CODESYS-Feature OPC-UA server is also already licensed in the TX HMI/PLC panels. In addition, standard Ethernet TCP/IP or UDP/IP or serial communication via RS232, RS485, or RS422 can be freely programmed.

Protocol	Server	Client
PROFINET	Yes	–
EtherNet/IP™	Yes	–
EtherCat	Yes	–
Modbus TCP	Yes	Yes
CANopen	Yes	–
Modbus RTU	Yes	Yes





# TX VisuPro

TX VisuPro is a modern development environment for the creation of contemporary, innovative, and user-friendly graphical user interfaces. TX VisuPro applications can communicate simultaneously with up to eight of the same or different controllers. Advanced features such as gesture control, scheduler, Java Scripting, IP cameras, emails, or audit trails can be generated quickly and intuitively according to your requirements. The HMI thereby becomes

the showpiece of each machine and plant.

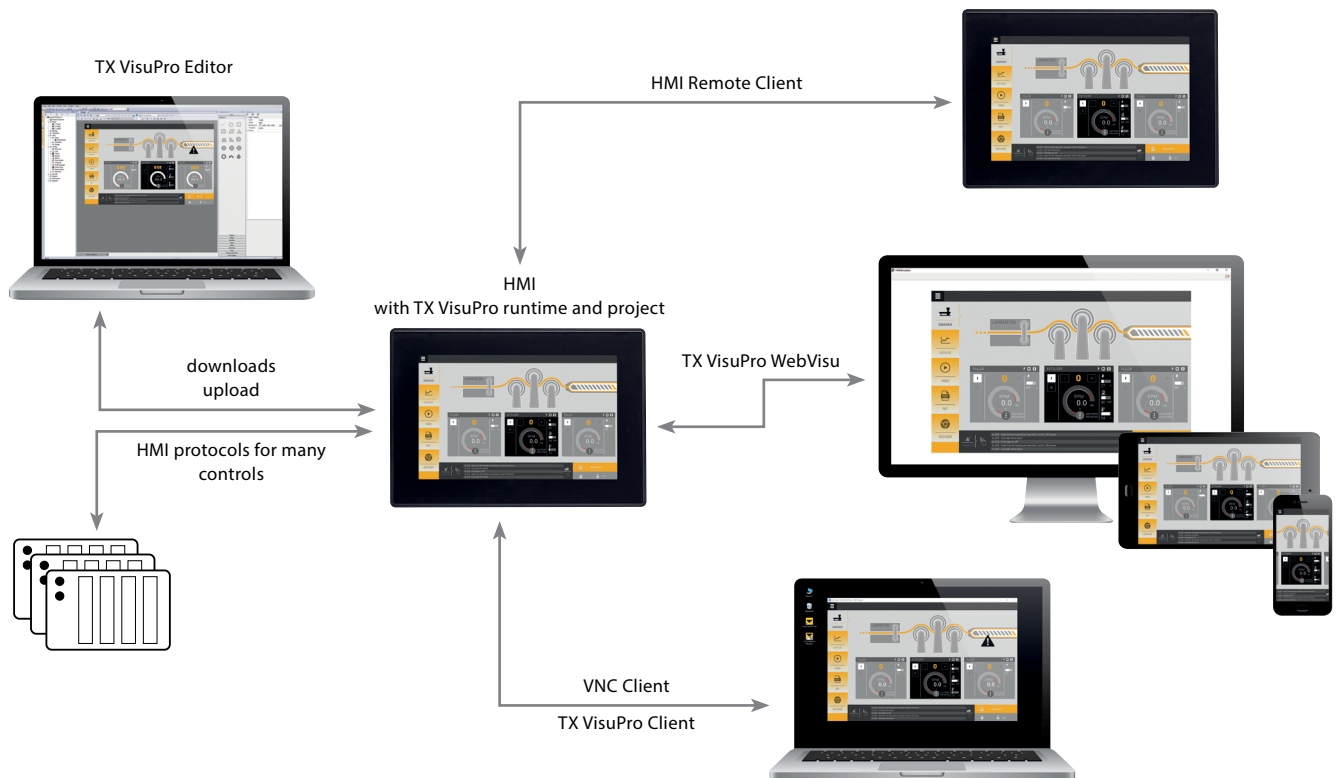
TX VisuPro is not licensed and can be downloaded free of charge at [www.turck.us](http://www.turck.us). Thanks to the integrated simulation mode, the creation and testing of a visualization is already possible without the available hardware.

Excerpt of the supported HMI protocols and controls:

- Siemens Simatic
- Phoenix Contact
- Allen-Bradley
- Beckhoff
- CODESYS (V2, V3)
- Mitsubishi
- Omron
- Modbus (TCP, RTU)
- CANopen
- OPC UA (Server, Client)

## Visual versatility with TX VisuPro

The actual visualization is executed and shown in its native form on the runtime of the centrally displayed HMI. The visualization with TX VisuPro offers yet even more opportunities and features for display and operation. The HMI device can therefore also be accessed remotely in various ways. The figure offers a schematic overview for this.



# Supported Technologies

		Protection		Interfaces									Local I/Os					TCS	
		IP20	IP67	Ethernet	Cellular	Wi-Fi Client	Wi-Fi Access Point	CAN	RS232/RS485	Profibus	USB Host Port	SD card	DI/DO	AI/AO	IO-Link	RFID	Technology	Turck Cloud Gateway	Chromium
ID	Type Code																		
PLC/EDGE Controller																			
100009353	TX700S-P3WV01	✓	✗	2	•	•	•	•	1	•	1	1	•	•	✗	✗	✗	✓	✗
100009354	TX700D-P3WV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	✗
100009355	TX700Q-P3WV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	✗
100046997	TX800M-P3WV01	✓	✗	2	•	•	•	•	1	•	1	1	•	•	✗	✗	✗	✓	✗
100046998	TX800L-P3WV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	✗
HMI																			
100002311	TX104-00VPST	✓	✗	1	✗	✗	✗	✗	1	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
100002312	TX107-00VPST	✓	✗	1	✗	✗	✗	✗	1	✗	✗	✗	✗	✗	✗	✗	✗	✗	•
100002313	TX110-00VPST	✓	✗	1	✗	✗	✗	✗	1	✗	✗	✗	✗	✗	✗	✗	✗	✗	•
HMI/PLC/EDGE Controller																			
100002080	TX207-P3CV01	✓	✗	2	✗	✗	✗	2	4	✗	2	✗	✗	✗	✗	✗	✗	✓	•
100002029	TX705-P3CV01	✓	✗	2	•	•	•	•	1	•	1	1	•	•	✗	✗	✗	✓	•
100002030	TX707-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100002031	TX710-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100002032	TX715-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100002033	TX721-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100007471	TX707FB-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100007472	TX715FB-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100007473	TX707HB-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100007474	TX710HB-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100046992	TX805-P3CV01	✓	✗	2	•	•	•	•	1	•	1	1	•	•	✗	✗	✗	✓	•
100046993	TX807-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100046994	TX810-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100046995	TX815-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100046996	TX821-P3CV01	✓	✗	3	•	•	•	•	1	•	2	1	•	•	✗	✗	✗	✓	•
100017839	TXF705-00VPST	✗	✓	1	✗	✗	✗	✗	✗	✗	•	✗	✗	✗	✗	✗	✗	•	•
100017841	TXF707-00VP20	✗	✓	1	✗	✓	✓	✗	✗	✗	•	✗	✗	✗	✗	✗	✗	•	•
100017845	TXF710-00VP20	✗	✓	1	✗	✓	✓	✗	✗	✗	•	✗	✗	✗	✗	✗	✗	•	•
100017847	TXF715-00VP20	✗	✓	1	✗	✓	✓	✗	✗	✗	•	✗	✗	✗	✗	✗	✗	•	•
100017849	TXF721-00VP20	✗	✓	1	✗	✓	✓	✗	✗	✗	•	✗	✗	✗	✗	✗	✗	•	•
PLC/EDGE Controller																			
6814018	TBEN-L5-PLC-10	✗	✓	2	✗	✗	✗	1	2	✗	✓	✗	✓	✗	✗	✗	✗	✓	✗
100000272	TBEN-L5-PLC-11	✗	✓	2	✗	✗	✗	1	2	✗	✓	✗	✓	✗	✗	✗	✗	✓	✗
6814019	TBEN-L4-PLC-10	✗	✓	2	✗	✗	✗	1	2	✗	✓	✗	✓	✗	✗	✗	✗	✓	✗
100000273	TBEN-L4-PLC-11	✗	✓	2	✗	✗	✗	1	2	✗	✓	✗	✓	✗	✗	✗	✗	✓	✗
I/O System/EDGE Controller																			
6827393	BL20-PG-EN-V3	✓	✗	2	✗	✗	✗	✗	•	✗	✓	✗	•	•	•	•	•	✓	✗
6827398	BL20-PG-EN-V3-WV	✓	✗	2	✗	✗	✗	✗	•	✗	✓	✗	•	•	•	•	•	✓	✗
6827394	BL67-PG-EN-V3	✗	✓	2	✗	✗	✗	•	•	✗	✓	✗	•	•	•	•	•	✓	✗
100000041	BL67-PG-EN-V3-WV	✗	✓	2	✗	✗	✗	•	•	✗	✓	✗	•	•	•	•	•	✓	✗

- ✓ = supported
- = supported with extension
- ✗ = not supported

# Supported Technologies

		CODESYS																	
		PLC Runtime	Target Visu	WebVisu	Profinet Device	Profinet Controller	EtherNet/IP Device	EtherNet/IP Scanner	Modbus TCP Client	Modbus TCP Server	EtherCAT Server	Modbus RTU Client	Modbus RTU Server	CANopen Device	CANopen Manager	SAE-J1939	MQTT client	OPC-UA Server	OPC-UA Client
ID	Type Code																		
PLC/EDGE Controller																			
100009353	TX700S-P3WV01	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100009354	TX700D-P3WV01	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100009355	TX700Q-P3WV01	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046997	TX800M-P3WV01	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046998	TX800L-P3WV01	✓	✗	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
HMI																			
100002311	TX104-00VPST	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
100002312	TX107-00VPST	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
100002313	TX110-00VPST	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
HMI/PLC/EDGE Controller																			
100002080	TX207-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100002029	TX705-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100002030	TX707-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100002031	TX710-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100002032	TX715-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100002033	TX721-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100007471	TX707FB-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100007472	TX715FB-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100007473	TX707HB-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100007474	TX710HB-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046992	TX805-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046993	TX807-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046994	TX810-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046995	TX815-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100046996	TX821-P3CV01	✓	✓	✓	✗	✓	✗	✓	✓	✓	✓	✓	✓	✗	✓	✓	•	✓	✗
100017839	TXF705-00VPST	•	•	•	✗	•	✗	•	•	•	✗	✗	✗	✗	✗	✗	•	•	✗
100017841	TXF707-00VP20	•	•	•	✗	•	✗	•	•	•	✗	✗	✗	✗	✗	✗	•	•	✗
100017845	TXF710-00VP20	•	•	•	✗	•	✗	•	•	•	✗	✗	✗	✗	✗	✗	•	•	✗
100017847	TXF715-00VP20	•	•	•	✗	•	✗	•	•	•	✗	✗	✗	✗	✗	✗	•	•	✗
100017849	TXF721-00VP20	•	•	•	✗	•	✗	•	•	•	✗	✗	✗	✗	✗	✗	•	•	✗
PLC/EDGE Controller																			
6814018	TBEN-L5-PLC-10	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓
100000272	TBEN-L5-PLC-11	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓
6814019	TBEN-L4-PLC-10	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓
100000273	TBEN-L4-PLC-11	✓	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓
I/O System/EDGE Controller																			
6827393	BL20-PG-EN-V3	✓	✗	✗	✓	✗	✓	✗	✓	✓	✗	•	•	✗	✗	✗	•	✓	✓
6827398	BL20-PG-EN-V3-WV	✓	✗	✓	✓	✗	✓	✗	✓	✓	✗	•	•	✗	✗	✗	•	✓	✓
6827394	BL67-PG-EN-V3	✓	✗	✗	✓	✗	✓	✗	✓	✓	✗	•	•	✗	✗	✗	•	✓	✓
100000041	BL67-PG-EN-V3-WV	✓	✗	✓	✓	✗	✓	✗	✓	✓	✗	•	•	✗	✗	✗	•	✓	✓

✓ = supported  
 • = supported with extension  
 ✗ = not supported

# Supported Technologies

		TX VisuPro																
		Target Visu	WebVisu	Modbus TCP Client	Modbus TCP Server	Modbus RTU Client	Modbus RTU Server	HMI Protocols	MQTT client	OPC-UA Server	OPC-UA Client	BACnet	CANopen HMI	CODESYS V3 ETH	Ethernet/IP CIP	Profibus DP	Simatic S7 ETH	Simatic S7 MPI
ID	Type Code																	
PLC/EDGE Controller																		
100009353	TX700S-P3WV01	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100009354	TX700D-P3WV01	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100009355	TX700Q-P3WV01	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046997	TX800M-P3WV01	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046998	TX800L-P3WV01	✗	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
HMI																		
100002311	TX104-00VPST	✓	✓	✓	✓	✓	✓	✓	✗	✗	✗	✓	✗	✓	✓	✗	✓	✓
100002312	TX107-00VPST	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓
100002313	TX110-00VPST	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✓
HMI/PLC/EDGE Controller																		
100002080	TX207-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗	✓	✓
100002029	TX705-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100002030	TX707-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100002031	TX710-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100002032	TX715-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100002033	TX721-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100007471	TX707FB-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100007472	TX715FB-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100007473	TX707HB-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100007474	TX710HB-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046992	TX805-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046993	TX807-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046994	TX810-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046995	TX815-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100046996	TX821-P3CV01	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	•	✓	✓	•	✓	✓
100017839	TXF705-00VPST	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗
100017841	TXF707-00VP20	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗
100017845	TXF710-00VP20	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗
100017847	TXF715-00VP20	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗
100017849	TXF721-00VP20	✓	✓	✓	✓	✗	✗	✓	✓	✓	✓	✓	✗	✓	✓	✗	✓	✗
PLC/EDGE Controller																		
6814018	TBEN-L5-PLC-10	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
100000272	TBEN-L5-PLC-11	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
6814019	TBEN-L4-PLC-10	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
100000273	TBEN-L4-PLC-11	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
I/O System/EDGE Controller																		
6827393	BL20-PG-EN-V3	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
6827398	BL20-PG-EN-V3-WV	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
6827394	BL67-PG-EN-V3	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
100000041	BL67-PG-EN-V3-WV	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗

- ✓ = supported
- = supported with extension
- ✗ = not supported

# Overview of Approvals

		Approvals					
		UL Approval	Class I Div. 2	ATEX	IEC Ex	DNV GL	Mobile Radio
ID	Type Code						
PLC/EDGE Controller							
100009353	TX700S-P3WV01	✓	✓	✓	✓	✗	
100009354	TX700D-P3WV01	✓	✓	✓	✓	✗	
100009355	TX700Q-P3WV01	✓	✓	✓	✓	✗	
100046997	TX800M-P3WV01	✓	✓	✓	✓	✗	
100046998	TX800L-P3WV01	✓	✓	✓	✓	✗	
HMI							
100002311	TX104-00VPST	✓	✓	✗	✗	✗	
100002312	TX107-00VPST	✓	✓	✗	✗	✗	
100002313	TX110-00VPST	✓	✓	✗	✗	✗	
HMI/PLC/EDGE Controller							
100002080	TX207-P3CV01	✓	✓	✗	✗	✗	
100002029	TX705-P3CV01	✓	✓	✓	✓	✓	
100002030	TX707-P3CV01	✓	✓	✓	✓	✓	
100002031	TX710-P3CV01	✓	✓	✓	✓	✓	
100002032	TX715-P3CV01	✓	✓	✓	✓	✓	
100002033	TX721-P3CV01	✓	✓	✓	✓	✓	
100007471	TX707FB-P3CV01	✓	✓	✗	✗	✗	
100007472	TX715FB-P3CV01	✓	✓	✗	✗	✗	
100007473	TX707HB-P3CV01	✓	✓	✓	✓	✗	
100007474	TX710HB-P3CV01	✓	✓	✓	✓	✗	
100046992	TX805-P3CV01	✓	✓	✓	✓	✓	
100046993	TX807-P3CV01	✓	✓	✓	✓	✓	
100046994	TX810-P3CV01	✓	✓	✓	✓	✓	
100046995	TX815-P3CV01	✓	✓	✓	✓	✓	
100046996	TX821-P3CV01	✓	✓	✓	✓	✓	
100017839	TXF705-00VPST	✓	✓	✗	✗	✗	
100017841	TXF707-00VP20	✓	✓	✗	✗	✗	
100017845	TXF710-00VP20	✓	✓	✗	✗	✗	
100017847	TXF715-00VP20	✓	✓	✗	✗	✗	
100017849	TXF721-00VP20	✓	✓	✗	✗	✗	
Accessories							
6828201	TX-IO-XX03	✓	✓	✗	✓	✗	
6828203	TX-IO-DX06	✓	✗	✗	✓	✗	
6828210	TX-CAN	✓	✓	✗	✓	✗	
100002599	TX-RS232	✓	✗	✗	✗	✗	
100004786	TX-EXTEND	✓	✓	✗	✗	✗	
100002598	TX-RS485	✗	✗	✗	✗	✗	
100010167	TX-DP-S	✗	✗	✗	✗	✗	
100009535	TX-UMTS	✓	✓	✗	✗	✗	
100025179	TX-LTE-WLAN	✓	✗	✗	✗	✗	✓

✓ = supported  
 • = supported with extension  
 ✗ = not supported

# TX100 Series



The TX100 HMI product series includes three devices with resistive touch display in 4", 7" or 10" sizes. The high-quality plastic housing and the reduced number of interfaces offer an optimal price/performance ratio in cost-sensitive applications.

## Features:

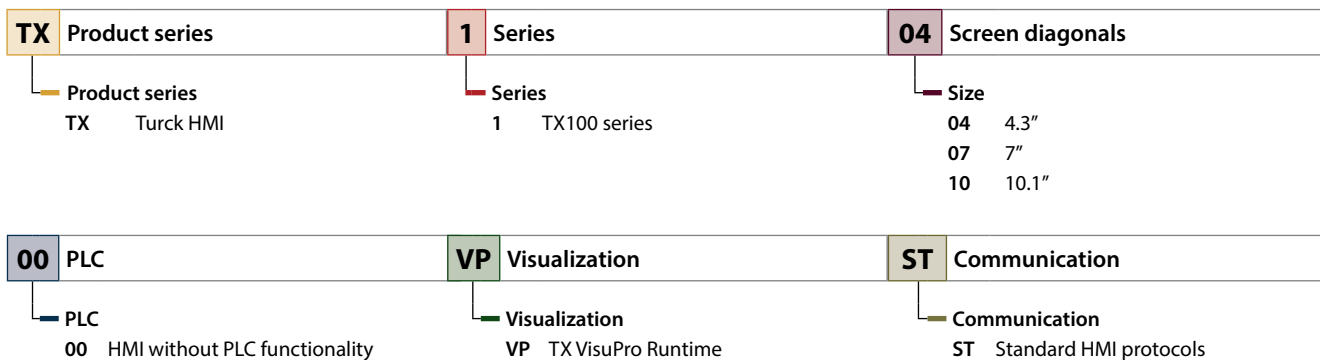
- One Ethernet interface, a serial interface (RS232, RS422 or RS485) and a USB port
- Pure operator interface, no PLC control function
- Can be used as either an HMI or a web panel

## Benefits:

- Cost-effective solution for simple applications
- User-friendly resistive touch display
- Easily connected to almost all controllers for flexibility

## Part Number Key

**TX 1 07 - 00 VP ST**





# TX100 Technical Features



Type Code	TX104-00VPST	TX107-00VPST	TX110-00VPST
ID	100002311	100002312	100002313
<b>Display/Touch</b>			
Display	TFT color	TFT color	TFT color
Touch	Resistive	Resistive	Resistive
Active screen area	4.3"	7"	10.1"
Resolution (pixels)	480 × 272	800 × 480	1024 × 600
Format	16:9	16:9	16:9
Brightness	200 Cd/m <sup>2</sup> typ.	200 Cd/m <sup>2</sup> typ.	200 Cd/m <sup>2</sup> typ.
Dimmable	Yes	Yes	Yes
<b>System</b>			
Processor	ARM Cortex A8, 300 MHz	ARM Cortex A8, 1 GHz	ARM Cortex A8, 1 GHz
Flash memory	2048 MB	4096 MB	4096 MB
RAM memory	256 MB	512 MB	512 MB
Memory expansion	USB	USB	USB
Real-time clock	–	–	–
Buzzer	–	–	–
<b>PLC Data</b>			
Programming	–	–	–
Programming languages	–	–	–
Programming interfaces	–	–	–
Program memory	–	–	–
Retain memory	–	–	–
<b>Interfaces</b>			
Ethernet ports	1 × 10/100 Mbit	1 × 10/100 Mbit	1 × 10/100 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	1 × host v.2.0, max. 500 mA	1 × host v.2.0, max. 500 mA	1 × host v.2.0, max. 500 mA
SD card	–	–	–
Expansion slot	–	–	–
<b>Power Supply</b>			
Rated value	24 VDC, max. 0.25 A	24 VDC, max. 0.3 A	24 VDC, max. 0.38 A
Permissible voltage range	18...32 VDC	10...32 VDC	10...32 VDC
<b>General Data</b>			
Operation temperature	0...50 °C	0...50 °C	0...50 °C
Approvals	CE, cULus	CE, cULus	CE, cULus
Ex approval	UL Class 1 Div. 2	UL Class 1 Div. 2	UL Class 1 Div. 2
Protection type	IP66 front, IP20 rear	IP66 front, IP20 rear	IP66 front, IP20 rear
<b>Dimensions</b>			
Housing front (W x H)	147 × 107 mm	187 × 147 mm	282 × 197 mm
Installation cutout (W x H)	136 × 96 mm	176 × 136 mm	271 × 186 mm
Mounting depth	29 mm	29 mm	29 mm
Weight	320 g	540 g	900 g

# TX207 Series



The TX207 combines the high-quality plastic housing of the TX100 series with a much more powerful hardware platform. The resistive touchscreen has a screen diagonal of 7 inches. The TX207 has sufficient memory and computing power, and is equipped with a real-time Linux operating system.

## Features:

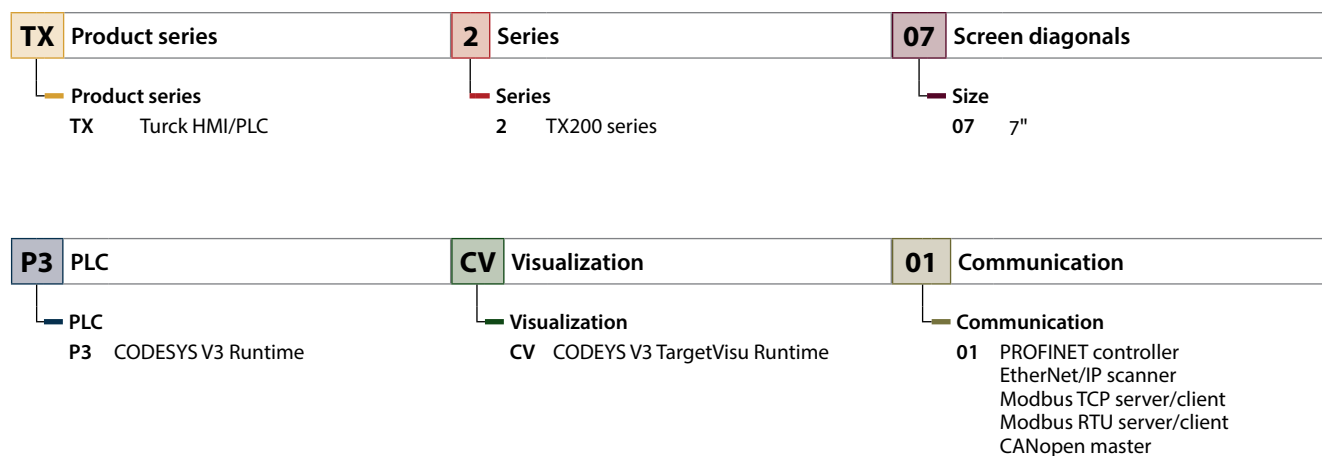
- Can be used for control panel, HMI panel or web panel
- Easy programming via CODESYS V3 software
- Numerous interfaces are already on board

## Benefits:

- Cost-effective solution for simple applications
- User-friendly resistive touch display
- Easily connected to almost all controllers for flexibility

## Part Number Key

**TX 2 07 - P3 CV 01**



# TX207 Technical Features



<b>Type Code</b>	<b>TX207-P3CV01</b>
ID	100002080
<b>Display/Touch</b>	
Display	TFT color
Touch	Resistive
Active screen area	7"
Resolution (pixels)	800 × 480
Format	16:9
Brightness	200 Cd/m <sup>2</sup> typ.
Dimmable	Yes
<b>System</b>	
Processor	ARM Cortex A9, Dual Core 800 MHz
Flash memory	4096 MB
RAM memory	1024 MB
Memory expansion	USB
Real-time clock	Yes (battery-backed)
Buzzer	–
<b>PLC Data</b>	
Programming	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet
Program memory	20 MB
Retain memory	63 kB
<b>Interfaces</b>	
Ethernet ports	2 × 10/100 Mbit
Serial ports	2 × (RS232), 2 × (RS422/RS485), 2 × (CAN)
USB ports	2 × host v.2.0, max. 100 mA
SD card	–
Expansion slot	–
<b>Power Supply</b>	
Rated value	24 VDC, max. 0.3 A
Permissible voltage range	10...32 VDC
<b>General Data</b>	
Operation temperature	0...50 °C
Approvals	CE, cULus
Ex approval	–
Protection type	IP66 front, IP20 rear
<b>Dimensions</b>	
Housing front (W x H)	187 × 147 mm
Installation cutout (W x H)	176 × 136 mm
Mounting depth	29 mm
Weight	560 g

# TX700 Series



The innovative design of the TX700 series HMI/PLC panels make them truly impressive. The improved display panels offer high quality metal housing with a redesigned front and capacitive glass display. Panels are available with screen diagonals from 5" to 21". Applications include control, as an HMI panel and as an IoT gateway.

## Features:

- Features up to three Ethernet ports, which can be used independently for different applications.
- Remote maintenance and remote access via integrated VNC server
- PLC programming is freely available via CODESYS V3 software
- Variants for food and beverage industry (FB) as well as versions with high brightness (HB)

## Benefits:

- Save time with easy-to-use graphical interface
- Multi-touch and gesture control easily adapts to the need of the operator
- Extended temperature range provides application flexibility
- FB variant resistant to high-pressure water (IP69K front)
- HB variant ensures reliability in bright light

## Variants for the food industry and extreme environments

The TX700 series now also offers two variants for food and beverage applications (TX700FB, Food&Beverage) and two variants with high brightness displays for improved sunlight readability (TX700HB, High Brightness).

The blue front of the F&B variants (7" and 15") has a stainless steel frame and is fully covered with a polyester coating.

This protects the glass front also in the event of possible glass breakage and complies with the requirements of all hygiene regulations.

- Regulations for front and sealing: - DIN EN1672-2 - EHEDG/FDA 21 CFR 177.2006
- Front protection type: IP69
- Resistant to high pressure water, 80 °C

The TX700HB (High Brightness) versions use a special technology called liquid bonding (LOCA) to ensure good sunlight readability. LOCA also helps in humid environments. This screen enhancement process improves contrast and brightness (up to 800 candela) by reducing reflection and refraction.

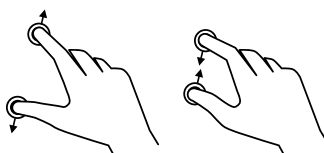
## Gesture control via TX VisuPro

The glass front of the TX700 operator panels with capacitive touch supports multi-touch and gesture control functionality. The gestures can be flexibly configured in the TX VisuPro visualization editor. A predefined object, also known as a widget, defines the area of the display the gesture is to be recognized and which action is to be subsequently performed. Modern operating concepts can thereby quickly and flexibly be adapted to the requirements of the individual machine or system. Below is an overview of the typical gestures.

Rotate



Zoom



Swipe



# TX700 Series

## Part Number Key

**TX** **7** **05** **FB** **-** **P3** **CV** **01**

<b>TX</b>	<b>Product series</b>	<b>7</b>	<b>Series</b>	<b>05</b>	<b>Screen diagonal</b>
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**Product series**  
TX    Turck HMI/PLC

**Series**  
7    TX700 series

**Size**  
00    Without display  
05    5"  
07    7"  
10    10.1"  
15    15.6"  
21    21.5"

<b>FB</b>	<b>Variant</b>	<b>-</b>	<b>P3</b>	<b>PLC</b>	<b>CV</b>	<b>Visualization</b>
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**Variant**  
Blank    Standard  
FB    Food & Beverage  
HB    High Brightness  
S    Single Core  
D    Dual Core  
Q    Quad Core

**PLC**  
P3    CODESYS V3 PLC Runtime

**Visualization**  
CV    CODESYS V3 TargetVisu Runtime  
WV    WebVisu (CODESYS, TX VisuPro)

<b>01</b>	<b>Communication</b>
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**Communication**  
01    PROFINET controller  
      EtherNet/IP scanner  
      Modbus TCP server/client  
      Modbus RTU server/client  
      CANopen server

# TX700 Technical Features



<b>Type Code</b>	<b>TX705-P3CV01</b>	<b>TX707-P3CV01</b>
ID	100002029	100002030
<b>Display/Touch</b>		
Display	TFT color	TFT color
Touch	Capacitive	Capacitive
Active screen area	5"	7"
Resolution (pixels)	800 × 480	800 × 480
Format	16 : 9	16 : 9
Brightness	300 Cd/m <sup>2</sup> typ.	500 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0%)	Yes (up to 0%)
<b>System</b>		
Processor	ARM Cortex A8, 1 GHz	ARM Cortex A9, Dual Core 800 MHz
Flash memory	4096 MB	4096 MB
RAM memory	512 MB	1024 MB
Memory expansion	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)
Buzzer	–	–
<b>PLC Data</b>		
Programming	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet
Program memory	20 MB	20 MB
Retain memory	63 kB	63 kB
<b>Interfaces</b>		
Ethernet ports	2 × 10/100 Mbit	3 × 10/100 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	1 × host v.2.0, max. 500 mA	2 × host v.2.0, max. 500 mA
SD card	Yes	Yes
Expansion slot	1 × plug-in slot	2 × plug-in slots
<b>Power Supply</b>		
Rated value	24 VDC, max. 0.6 A	24 VDC, max. 0.7 A
Permissible voltage range	10...32 VDC	10...32 VDC
<b>General Data</b>		
Operation temperature	-20...60 °C	-20...60 °C
Approvals	CE, cULus, DNV-GL, LR	CE, cULus, DNV-GL, LR
Ex approval	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex
Protection type	IP66 front, IP20 rear	IP66 front, IP20 rear
<b>Dimensions</b>		
Housing front (W x H)	147 × 107 mm	187 × 147 mm
Installation cutout (W x H)	136 × 96 mm	176 × 136 mm
Mounting depth	52 mm	47 mm
Weight	800 g	1100 g



# TX700 Technical Features



Type Code	TX710-P3CV01	TX715-P3CV01	TX721-P3CV01
ID	100002031	100002032	100002033
<b>Display/Touch</b>			
Display	TFT color	TFT color	TFT color
Touch	Capacitive	Capacitive	Capacitive
Active screen area	10.1"	15.6"	21.5"
Resolution (pixels)	1280 × 800	1366 × 768	1920 × 1080
Format	16 : 9	16 : 9	16 : 9
Brightness	500 Cd/m <sup>2</sup> typ.	400 Cd/m <sup>2</sup> typ.	300 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0%)	Yes (up to 0%)	Yes (up to 0 %)
<b>System</b>			
Processor	ARM Cortex A9, Dual Core 800 MHz	ARM Cortex A9, Quad Core 800 MHz	ARM Cortex A9, Quad Core 800 MHz
Flash memory	4096 MB	8192 MB	8192 MB
RAM memory	1024 MB	2048 MB	2048 MB
Memory expansion	USB, SD card	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)	Yes (battery-backed)
Buzzer	–	–	–
<b>PLC Data</b>			
Programming	CODESYS V3	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet	Ethernet
Program memory	20 MB	20 MB	20 MB
Retain memory	63 kB	63 kB	63 kB
<b>Interfaces</b>			
Ethernet ports	3 × 10/100 Mbit	3 × 10/100 Mbit	3 × 10/100 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	2 × host v.2.0, max. 500 mA	2 × host v.2.0, max. 500 mA	2 × host v.2.0, max. 500 mA
SD card	Yes	Yes	Yes
Expansion slot	2 × plug-in slots	2 × plug-in slots	2 × plug-in slots
<b>Power Supply</b>			
Rated value	24 VDC, max. 1.0 A	24 VDC, max. 1.2 A	24 VDC, max. 1.7 A
Permissible voltage range	10...32 VDC	10...32 VDC	10...32 VDC
<b>General Data</b>			
Operation temperature	-20...60 °C	-20...60 °C	-20...60 °C
Approvals	CE, cULus, DNV-GL, LR	CE, cULus, DNV-GL, LR	CE, cULus, DNV-GL, LR
Ex approval	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex
Protection type	IP66 front, IP20 rear	IP66 front, IP20 rear	IP66 front, IP20 rear
<b>Dimensions</b>			
Housing front (W x H)	282 × 197 mm	422 × 267 mm	552 × 347 mm
Installation cutout (W x H)	271 × 186 mm	411 × 256 mm	541 × 336 mm
Mounting depth	56 mm	56 mm	56 mm
Weight	1800 g	3500 g	6100 g

# TX700FB and TX700HB Technical Features



Type Code	TX707FB-P3CV01	TX715FB-P3CV01
ID	100007471	100007472
<b>Display/Touch</b>		
Display	TFT color	TFT color
Touch	Capacitive	Capacitive
Active screen area	7"	15.6"
Resolution (pixels)	800 × 480	1366 × 768
Format	16 : 9	16 : 9
Brightness	500 Cd/m <sup>2</sup> typ.	400 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0 %)	Yes (up to 0 %)
<b>System</b>		
Processor	ARM Cortex-A9 dual core 800 MHz	ARM Cortex-A9 quad core 800 MHz
Flash memory	4 GB	8 GB
RAM memory	1 GB	2 GB
Memory expansion	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)
Buzzer	Yes	Yes
<b>PLC Data</b>		
Programming	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet
Program memory	20 MB	20 MB
Non-volatile memory	63 Kbyte	63 Kbyte
<b>Interfaces</b>		
Ethernet ports	3 × 10/100 Mbit	3 × 10/100 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	2 × Host v2.0, max. 500 mA	2 × Host v2.0, max. 500 mA
SD card	Yes	Yes
Expansion slot	2 × plug-in slots	2 × plug-in slots
<b>Power Supply</b>		
Rated value	24 VDC, 0.7 A maximum	24 VDC, 1.2 A maximum
Permissible voltage range	10...32 VDC	10...32 VDC
<b>General Data</b>		
Operating temperature	-20...+60 °C	-20...+60 °C
Approvals	CE, cULus	CE, cULus
EX approval	–	–
Protection type	IP69K (front), IP20 (rear)	IP69K (front), IP20 (rear)
<b>Dimensions</b>		
Housing front (W x H)	217 × 177 mm	450 × 295 mm
Installation cutout (W x H in mm)	176 × 136 mm	411 × 256 mm
Mounting depth (D in mm)	45 + 10 mm	56 + 8 mm
Weight	2.5 kg	5.2 kg

# TX700FB and TX700HB Technical Features



Type Code	TX707HB-P3CV01	TX710HB-P3CV01
ID	100007473	100007474
<b>Display/Touch</b>		
Display	TFT color	TFT color
Touch	Capacitive	Capacitive
Active screen area	7"	10.1"
Resolution (pixels)	800 × 480	1280 × 800
Format	16:9	16:9
Brightness	600 Cd/m <sup>2</sup>	800 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0 %)	Yes (up to 0 %)
<b>System</b>		
Processor	ARM Cortex-A9 dual core 800 MHz	ARM Cortex-A9 dual core 800 MHz
Flash memory	4 GB	4 GB
RAM memory	1 GB	1 GB
Memory expansion	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)
Buzzer	Yes	Yes
<b>PLC Data</b>		
Programming	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet
Program memory	20 MB	20 MB
Non-volatile memory	63 Kbyte	63 Kbyte
<b>Interfaces</b>		
Ethernet ports	3 × 10/100 Mbit	3 × 10/100 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	2 × Host v2.0, max. 500 mA	2 × Host v2.0, max. 500 mA
SD card	Yes	Yes
Expansion slot	2 × plug-in slots	2 × plug-in slots
<b>Power Supply</b>		
Rated value	24 VDC, 0.7 A maximum	24 VDC, 1.0 A maximum
Permissible voltage range	10...32 VDC	10...32 VDC
<b>General Data</b>		
Operating temperature	-20...+60 °C	-20...+60 °C
Approvals	CE, cULus	CE, cULus
EX approval	UL Class I Div. 2	UL Class I Div. 2
Protection type	IP66 (front), IP20 (rear)	IP66 (front), IP20 (rear)
<b>Dimensions</b>		
Housing front (W x H)	187 × 147 mm	282 × 197 mm
Installation cutout (W x H in mm)	176 × 136 mm	271 × 168 mm
Mounting depth (D in mm)	47 + 8 mm	56 + 8 mm
Weight	1.5 kg	2.5 kg

# TX800 Series



Ideal for more demanding applications, the TX800 family of HMI/PLCs and edge controllers offers a more powerful quad-core processor in all variants. This series delivers maximum performance for IIoT applications. The edge controller versions provide a cost-effective solution while still offering fast processing capability when no local display is needed.

## Features:

- Powerful hardware platform with 64-bit quad core processor
- Up to 3 Ethernet networks with independent PHYs
- Capacitive touch with multi-touch and gesturing enabled (HMI/PLC versions)
- PLC programming via CODESYS V3
- IP20, din rail mounted in two sizes (Edge Controller versions)
- Extended temperature range of -20 to +60 °C

## Benefits:

- Easy-to-use HMI/PLC with more processing power for demanding applications
- User-friendly display ideal for durable use in rugged environments
- Optimal performance in a wide range of sizes, from 5 – 21 inches
- Extensive array of mounting systems and accessories for any application type

## Part Number Key

**TX 8 05 - P3 CV 01**

TX	Product series	8	Series	05	Screen diagonal
Product series	TX	Series	8	Size	
	Turck HMI/PLC		TX700 series	05	5"
				07	7"
				10	10.1"
				15	15.6"
				21	21.5"

- P3	PLC	CV	Visualization
PLC		Visualization	
P3	CODESYS V3 PLC	CV	CODESYS V3 TargetVisu Runtime
		WV	WebVisu (CODESYS, TX VisuPro)

01	Communication
Communication	
01	PROFINET controller EtherNet/IP scanner Modbus TCP server/client Modbus RTU server/client CANopen server

# TX800 Technical Features



Type Code	TX805-P3CV01	TX807-P3CV01
ID	100046992	100046993
<b>Display/Touch</b>		
Display	TFT color	TFT color
Touch	Capacitive	Capacitive
Active screen area	5"	7"
Resolution (pixels)	800 x 480	800 x 480
Format	16:9	16:9
Brightness	300 Cd/m <sup>2</sup> typ.	300 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0%)	Yes (up to 0%)
<b>System</b>		
Processor	RISC, Quad Core 1.6 GHz	RISC, Quad Core 1.6 GHz
Flash memory	8 GB	8 GB
RAM memory	2048 MB	2048 MB
Memory expansion	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)
Buzzer	-	-
<b>PLC Data</b>		
Programming	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet
Program memory	20 MB	20 MB
Non-volatile memory	63 Kbyte	63 Kbyte
<b>Interfaces</b>		
Ethernet ports	2 x 10/100 Mbit	3 x 10/100/1000 Mbit
Serial ports	1 x (RS232/RS485/RS422, configurable)	1 x (RS232/RS485/RS422, configurable)
USB ports	1 x Host v2.0, max. 500 mA	2 x Host v2.0, max. 500 mA
SD card	Yes	Yes
Expansion slot	1 x plug-in slot	2 x plug-in slots
<b>Power Supply</b>		
Rated value	24 VDC, max. 0.6 A	24 VDC, max. 0.7 A
Permissible voltage range	10...32 VDC	10...32 VDC
<b>General Data</b>		
Operating temperature	-20...60 °C	-20...60 °C
Approvals	CE, cULus, DNV-GL, LR	CE, cULus, DNV-GL, LR
EX approval	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex
Protection type	IP66 front, IP20 rear	IP66 front, IP20 rear
<b>Dimensions</b>		
Housing (W x H)	147 x 107 mm	187 x 147 mm
Installation cutout (W x H)	136 x 96 mm	176 x 136 mm
Mounting depth	52 mm	47 mm
Weight	800 g	1100 g

# TX800 Technical Features



Type Code	TX810-P3CV01	TX815-P3CV01	TX821-P3CV01
ID	100046994	100046995	100046996
<b>Display/Touch</b>			
Display	TFT color	TFT color	TFT color
Touch	Capacitive	Capacitive	Capacitive
Active screen area	10.1"	15.6"	21.5"
Resolution (pixels)	1280 x 800	1366 x 768	1920 x 1080
Format	16:9	16:9	16:9
Brightness	500 Cd/m <sup>2</sup> typ.	400 Cd/m <sup>2</sup> typ.	300 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0%)	Yes (up to 0%)	Yes (up to 0%)
<b>System</b>			
Processor	RISC, Quad Core 1.6 GHz	RISC, Quad Core 1.6 GHz	RISC, Quad Core 1.6 GHz
Flash memory	8 GB	8 GB	8 GB
RAM memory	2048 MB	2048 MB	2048 MB
Memory expansion	USB, SD card	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)	Yes (battery-backed)
Buzzer	-	-	-
<b>PLC Data</b>			
Programming	CODESYS V3	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet	Ethernet
Program memory	20 MB	20 MB	20 MB
Non-volatile memory	63 Kbyte	63 Kbyte	63 Kbyte
<b>Interfaces</b>			
Ethernet ports	3 x 10/100/1000 Mbit	3 x 10/100/1000 Mbit	3 x 10/100/1000 Mbit
Serial ports	1 x (RS232/RS485/RS422, configurable)	1 x (RS232/RS485/RS422, configurable)	1 x (RS232/RS485/RS422, configurable)
USB ports	2 x Host v2.0, max. 500 mA	2 x Host v2.0, max. 500 mA	2 x Host v2.0, max. 500 mA
SD card	Yes	Yes	Yes
Expansion slot	2 x plug-in slot	2 x plug-in slots	2 x plug-in slots
<b>Power Supply</b>			
Rated value	24 VDC, max. 1.0 A	24 VDC, max. 1.2 A	24 VDC, max. 1.7 A
Permissible voltage range	10...32 VDC	10...32 VDC	10...32 VDC
<b>General Data</b>			
Operating temperature	-20...60 °C	-20...60 °C	-20...60 °C
Approvals	CE, cULus, DNV-GL, LR	CE, cULus, DNV-GL, LR	CE, cULus, DNV-GL, LR
EX approval	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex	UL Class 1 Div. 2, ATEX, IEC Ex
Protection type	IP66 front, IP20 rear	IP66 front, IP20 rear	IP66 front, IP20 rear
<b>Dimensions</b>			
Housing (W x H)	282 x 197 mm	422 x 267 mm	552 x 347 mm
Installation cutout (W x H)	271 x 186 mm	411 x 256 mm	541 x 336 mm
Mounting depth	56 mm	56 mm	56 mm
Weight	1800 g	3500 g	6100 g



# TX700/TX800 Controller and PLC



The TX700 and TX800 edge controller families serve as a secure link between conventional automation devices such as PLCs and IIoT applications like cloud services. They are a central element of the IIoT infrastructure. The gateways can be used as a PLC, with CODESYS V3 software or as a secure router.

## Features:

- Three TX700 variants: single, dual and quad-core available
- Two TX800 variants: quad-core processing, two sizes
- All gateway variants can be used as conventional IP20
- PLCs with CODESYS V3 control and WebVisu

## Benefits:

- The OT and IT networks are physically separated with individual Ethernet ports, ensuring maximum security
- Secure HTTPS/TLS-encrypted data transfers with signatures and packet transmission provide protection from data theft
- The VNC server allows swift and easy implementation of remote maintenance and remote access tasks

## CODESYS V3 PLC

Both TX700 and TX800 IIoT gateways can also be used as conventional IP20 PLCs with CODESYS V3 control and WebVisu. The devices come factory shipped with all the necessary licenses and the several server and client functions available.

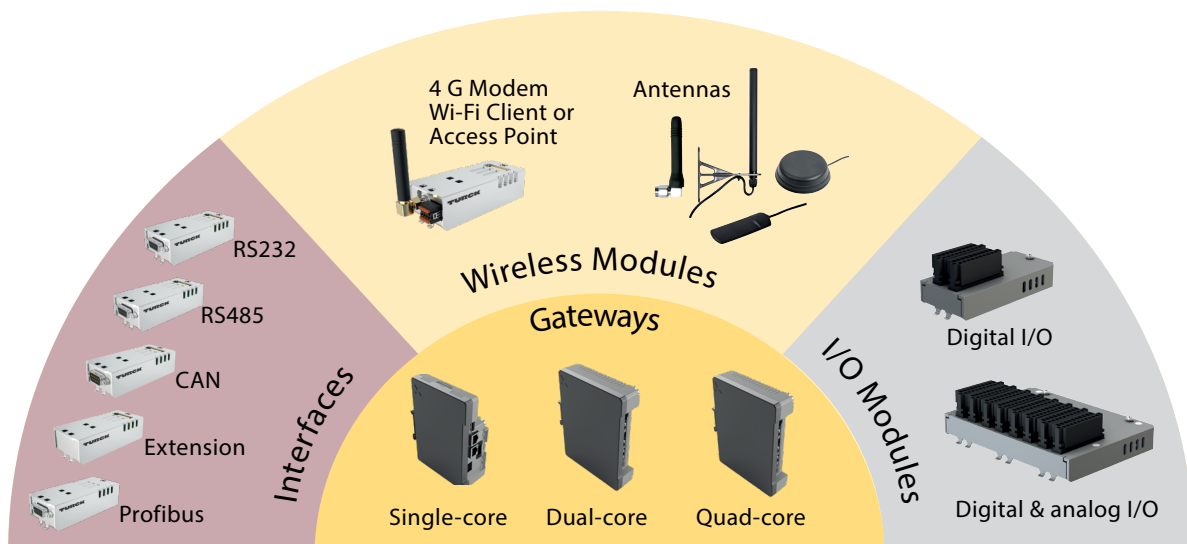
## TX VisuPro

Alternatively, the CODESYS visualization can also be replaced with a TX VisuPro runtime at no additional cost. This makes it possible to access the extensive protocol library including the OPC UA server, client and MQTT.

# Modular and future-proof IIoT concept

## Plug-in modules

Plug-in modules also make it possible to provide TX700 devices with additional functions, interfaces and local I/O signals. The same concept is available with the TX800 device series. The same plug-in modules can therefore also be used here.



# TX700 Controller and PLC

TX700D and TX700Q

TX700S



## Part Number Key

**TX 7 00 S - P3 WV 01**

<b>TX</b>	Product series	<b>7</b>	Series	<b>00</b>	Screen diagonal
Product series		Series		Size	
TX	Turck HMI/PLC	8	TX700 series	00	Without display

<b>S</b>	Variant	<b>-</b>	<b>P3</b>	PLC	<b>WV</b>	Visualization
Variant			PLC		Visualization	
S	Single core		P3	CODESYS V3 PLC runtime	WV	WebVisu (CODESYS, TX VisuPro)
D	Dual core					
Q	Quad core					

<b>01</b>	Communication
Communication	
01	PROFINET controller EtherNet/IP scanner Modbus TCP server/client Modbus RTU server/client CANopen server

# TX800 Controller and PLC

TX800L and TX800M



## Part Number Key

**TX 8 00 M - P3 WV 01**

<b>TX</b>	<b>Product series</b>	<b>8</b>	<b>Series</b>	<b>00</b>	<b>Screen diagonal</b>
	Product series		Series		Size
TX	Turck HMI/PLC	8	TX700 series	00	Without display

<b>M</b>	<b>Variant</b>	<b>-</b>	<b>P3</b>	<b>PLC</b>	<b>CV</b>	<b>Visualization</b>
	Variant			PLC		Visualization
M	Medium size		P3	CODESYS V3 PLC runtime	WV	WebVisu (CODESYS, TX VisuPro)
L	Large size					

<b>01</b>	<b>Communication</b>
	Communication
01	PROFINET controller EtherNet/IP scanner Modbus TCP server/client Modbus RTU server/client CANopen server

# TX700 Controller and PLC Technical Features



Type Code	TX700S-P3WV01	TX700D-P3WV01	TX700Q-P3WV01
ID	100009353	100009354	100009355
<b>Display/Touch</b>			
Display	No display	No display	No display
Visualization	CODESYS or TX VisuPro WebVisu	CODESYS or TX VisuPro WebVisu	CODESYS or TX VisuPro WebVisu
<b>System</b>			
Processor	ARM Cortex A8, 1 GHz	ARM Cortex A9, Dual Core 800 MHz	ARM Cortex A9, Quad Core 800 MHz
Flash memory	4 GB	4 GB	8 GB
RAM memory	512 MB	1 GB	2 GB
Memory expansion	USB, SD card	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)	Yes (battery-backed)
Buzzer	Yes	Yes	Yes
<b>PLC Data</b>			
Programming	CODESYS V3	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet	Ethernet
Program memory	20 MB	20 MB	20 MB
Non-volatile memory	63 Kbyte	63 Kbyte	63 Kbyte
<b>Interfaces</b>			
Ethernet ports	2 × 10/100 Mbit	3 × 10/100 Mbit	3 × 10/100 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	1 × Host v2.0, max. 500 mA	2 × Host v2.0, max. 500 mA	2 × Host v2.0, max. 500 mA
SD card	Yes	Yes	Yes
Expansion slot	1 × plug-in slot	2 × plug-in slots	2 × plug-in slots
<b>Power Supply</b>			
Rated value	24 VDC, 0.35 A maximum	24 VDC, 0.5 A maximum	24 VDC, 0.55 A maximum
Permissible voltage range	10...32 VDC	10...32 VDC	10...32 VDC
<b>General Data</b>			
Operating temperature	-20...60 °C	-20...60 °C	-20...60 °C
Approvals	CE, cULus	CE, cULus	CE, cULus
EX approval	UL Class I Div. 2, (ATEX and IECEx in preparation)	UL Class I Div. 2, (ATEX and IECEx in preparation)	UL Class I Div. 2, (ATEX and IECEx in preparation)
Protection type	IP20	IP20	IP20
<b>Dimensions</b>			
Housing (H x D)	134 × 102 mm	174 × 144 mm	174 × 144 mm
Width on DIN rail (W)	45 mm	44 mm	44 mm
Weight	0.56 kg	0.65 kg	0.65 kg

# TX800 Controller and PLC Technical Features



Type Code	TX800M-P3WV01	TX800L-P3WV01
ID	100046997	100046998
<b>Display/Touch</b>		
Display	No display	No display
Visualization	CODESYS or TX VisuPro WebVisu	CODESYS or TX VisuPro WebVisu
<b>System</b>		
Processor	RISC, Quad Core 1.6 GHz	RISC, Quad Core 1.6 GHz
Flash memory	8 GB	8 GB
RAM memory	2048 MB	2048 MB
Memory expansion	USB, SD card	USB, SD card
Real-time clock	Yes (battery-backed)	Yes (battery-backed)
Buzzer	-	-
<b>PLC Data</b>		
Programming	CODESYS V3	CODESYS V3
Programming languages	IEC 61131-3 (IL, LD, FBD, SFC, ST)	IEC 61131-3 (IL, LD, FBD, SFC, ST)
Programming interfaces	Ethernet	Ethernet
Program memory	20 MB	20 MB
Non-volatile memory	63 Kbyte	63 Kbyte
<b>Interfaces</b>		
Ethernet ports	2 × 10/100 Mbit	3 × 10/100/1000 Mbit
Serial ports	1 × (RS232/RS485/RS422, configurable)	1 × (RS232/RS485/RS422, configurable)
USB ports	1 × Host v2.0, max. 500 mA	2 × Host v2.0, max. 500 mA
SD card	Yes	Yes
Expansion slot	1 × plug-in slot	2 × plug-in slots
<b>Power Supply</b>		
Rated value	24 VDC, 0.35 A maximum	24 VDC, 0.5 A maximum
Permissible voltage range	10...32 VDC	10...32 VDC
<b>General Data</b>		
Operating temperature	-20...60 °C	-20...60 °C
Approvals	CE, cULus	CE, cULus
EX approval	UL Class I Div. 2, (ATEX and IECEx in preparation)	UL Class I Div. 2, (ATEX and IECEx in preparation)
Protection type	IP20	IP20
<b>Dimensions</b>		
Housing (H x D)	134 × 102 mm	174 × 144 mm
Width on DIN rail (W)	45 mm	44 mm
Weight	0.56 kg	0.65 kg


# TX700/TX800 Accessories

## Plug-in modules

Figure	ID	Type Code	Family	Description	
	100002598	TX-RS485	TX7000 series TX800 series	RS485 interface	Galvanically isolated
					9-pin SUB-D plug connection With plug-in expansion slot
	100002599	TX-RS232	TX7000 series TX800 series	RS232 interface	9-pin SUB-D plug connection With plug-in expansion slot
	6828210	TX-CAN	TX7000 series TX800 series	CANopen Manager	CANopen manager/server in CODESYS Max. 1 Mbit
					Galvanically isolated 9-pin SUB-D plug connection With plug-in expansion slot
	6828203	TX-IO-DX06	TX7000 series TX800 series	8 DI, 6 DO, 1 relay output	I/O module 8 digital inputs, 24 VDC, PNP 6 digital outputs, 24 VDC, 0.5A, PNP 1 relay, NO contact
	6828201	TX-IO-XX03	TX7000 series TX800 series	20 DI, 12 DO 0.5A, 8 AI, 4 AO	I/O module 20 digital inputs, 24 VDC, PNP 12 digital outputs, 24 VDC, 0.5 A, PNP 8 analog inputs, U, I, RTD, TC 4 analog outputs, U, I
	100004786	TX-EXTEND	TX7000 series TX800 series	Plug-in extension	Required to use TX-IO-XX03 I/O module with TX705 With plug-in expansion slot
	100010167	TX-DP-S	TX7000 series TX800 series	PROFIBUS-DP client	PROFIBUS-DP client in TX VisuPro Max. 12 Mbps transfer rate 9-pin sub-D female connector No expansion slot
	100025179	TX-LTE-WLAN	TX7000 series TX800 series	4G modem/Wi-Fi	4G mobile communications module Wi-Fi client/access point Micro-SIM slot Can be used with TX700 product series With plug-in expansion slot

The required antennas are available in various designs as accessories (see data sheet)


## Protective film

Figure	ID	Type Code	Family	Number Per Unit
	100003928	TX-PROTFOIL-04	TX104	10 pcs.
	100003930	TX-PROTFOIL-07	TX107 or TX207	10 pcs.

# TX700/TX800 Accessories

ID	Type Code	Family	Mounting Clamp, Old	Mounting Camp, New	Power Supply	Serial	CAN
100003186	TX100-MOUNT-07	TX104-00VPST TX107-00VPST	–	4 × 	1 × 	–	–
100003187	TX100-MOUNT-10	TX110-00VPST	–	11 × 	1 × 	–	–
100003206	TX200-MOUNT-07	TX207-P3CV01	–	4 × 	1 × 	–	1 × 
100003188	TX700-MOUNT-07	TX705-P3CV01 TX707-P3CV01	–	4 × 	1 × 	1 × 	–
100003189	TX700-MOUNT-10	TX710-P3CV01	–	9 × 	1 × 	1 × 	–
100003190	TX700-MOUNT-15	TX715-P3CV01	–	12 × 	1 × 	1 × 	–
100003191	TX700-MOUNT-21	TX721-P3CV01	–	14 × 	1 × 	1 × 	–

The sets with mounting brackets and connectors are always included in the delivery. However, they can also be ordered separately as spare parts.

ID	Type Code	Description	Power Supply
100002938	TX-PSC	Power supply connector, all TX HMI and PLC variants	

# TXF700 Series



The TXF700 series of operator panels offer complete all-around IP67 protection, enabling new, highly flexible and slim mounting concepts with a modern HMI platform. The brilliant displays are protected by a robust glass front and equipped with a capacitive touchscreen.

## Features:

- Touchscreen offers multi-touch capability and gesture control
- Functions as operating device, web panel or controller (optional)
- High IP67 protection rating
- Five display sizes available

## Benefits:

- Flexible installation options thanks to a wide range of mounting accessories
- Built for long-lasting industrial use
- Tilt and vibration can be recorded directly on the device
- Both standard and integrated Wi-Fi interface available (except TXF705)

## TX VisuPro

In terms of the application area of TXF700 HMI devices, the focus is on pure HMI applications without CODESYS control. The visualization software TX VisuPro is therefore the primary software tool. This allows access to the extensive protocol library including OPC UA, client and MQTT servers. With the integrated Java Script Editor, you can also create programs directly in TX VisuPro, allowing you to map logic.

## CODESYS V3 PLC (Optional)

Alternatively, a CODESYS runtime can be installed on the TXF700 HMIs. However, an additional paid license is required for this, which is not included with the device. In this case, it is up to the user to decide whether they use the CODESYS' own TargetVisu and WebVisu or whether TX VisuPro should also be used here.

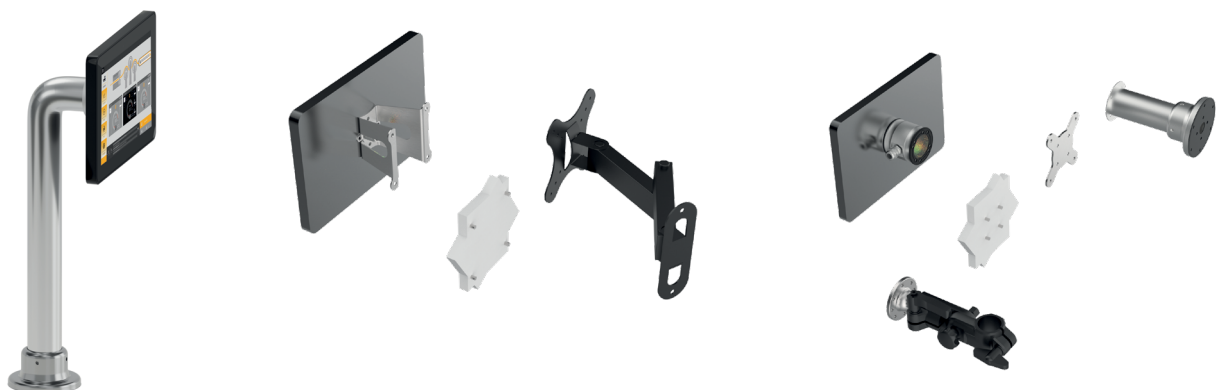
## Installation

No switch cabinets or switch boxes are required to mount the IP67-protected TXF700 operator panels. With the extensive mounting accessories, the TXF700 can be installed directly on the machine or in the system where entries are made or information needs to be available.

## Methods:

- Installation on support arm systems with a pipe diameter of 48 mm
- Classic swivel arm solutions

## Application examples for mounting concepts





# TXF700 Series

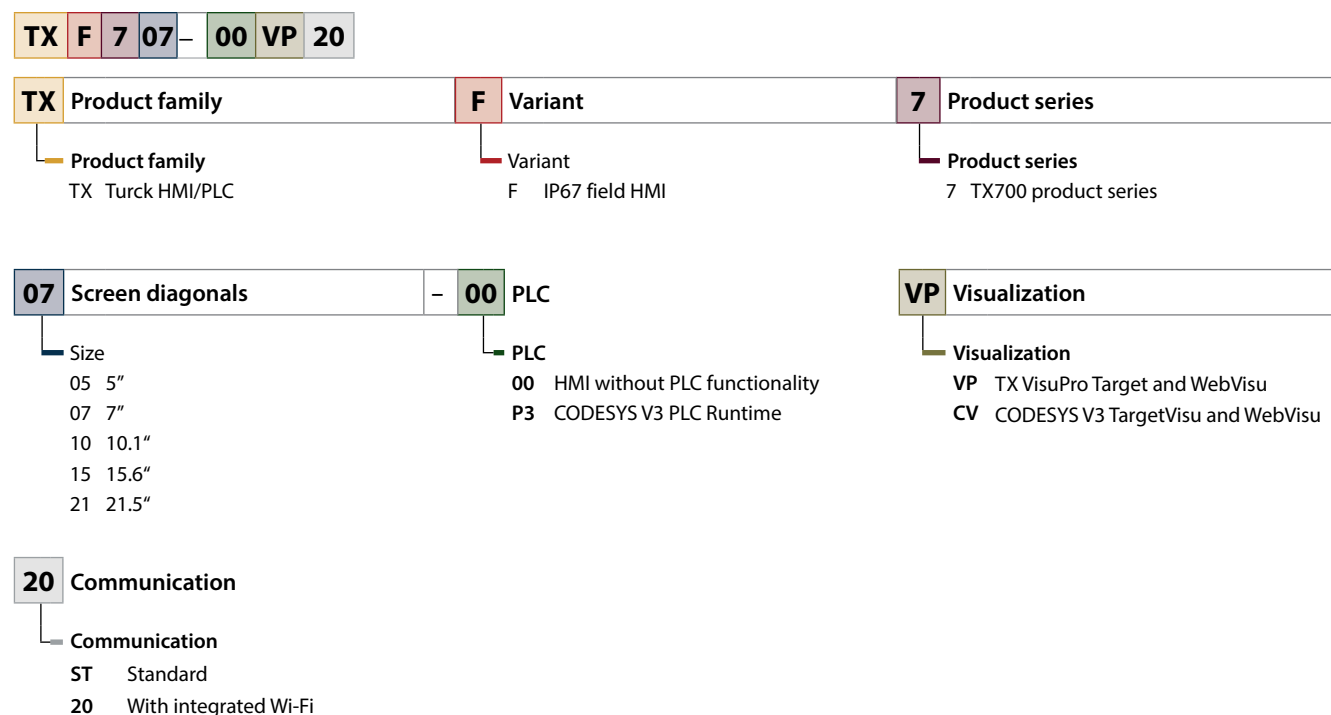
## Wi-Fi interface

The TXF700 devices (except TXF705) have an integrated Wi-Fi interface. This allows the devices to integrate into a Wi-Fi network as a client or to set up their own Wi-Fi as an access point.

## Integrated sensors

TXF700 operator panels include both environmental and motion sensors. This means, for example, that tilt and vibration can be recorded and evaluated directly from the TXF700.

## Part Number Key



# TXF700 Technical Data



Type Code	TXF705-00VPST	TXF707-00VP20
ID	100007839	100007841
<b>Display/Touch</b>		
Display	TFT color	TFT color
Touch	Capacitive	Capacitive
Active screen area	5"	7"
Resolution (pixels)	800 × 480	1024 × 600
Format	16 : 9	16 : 9
Brightness	300 Cd/m <sup>2</sup> typ.	400 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0 %)	Yes (up to 0 %)
<b>System</b>		
Processor	ARM Cortex-A9 dual core 800 MHz	ARM Cortex-A9 dual core 800 MHz
Flash memory	4 GB	4 GB
RAM	1 GB	1 GB
Memory expansion	USB	USB
Real-time clock	Yes (battery-backed)	Yes (battery-backed)
Buzzer	Yes	Yes
Front LED	RGB	RGB
Integrated sensors	Vibration/tilt angle	Vibration/tilt angle
<b>Interfaces</b>		
Ethernet ports	1 × 10/100 Mbit (PoE)	1 × 10/100 Mbit (PoE)
Serial ports	–	–
USB ports	1 × host v2.0 (special cable required)	1 × host v2.0 (special cable required)
SD Card	–	–
Expansion slot	–	–
<b>Wi-Fi</b>		
Wi-Fi standards	–	IEEE 802.11a/b/g
Frequency	–	2.4 GHz
Modes	–	Wi-Fi Access Point & Client
<b>Power Supply</b>		
PoE standard	IEEE 802.3af (PoE)	IEEE 802.3af (PoE)
Power consumption	≤ 6 W	≤ 9 W
<b>General Data</b>		
Operating temperature	-20...+55 °C	-20...+55 °C
Approvals	CE, cULus	CE, cULus
Ex approval	UL Class 1 Div. 2	UL Class 1 Div. 2
Type of protection	IP67	IP67
<b>Dimensions</b>		
Housing front (W × H × D)	148.3 × 105.1 × 16.5 mm	195.2 × 131.6 × 16.5 mm
Weight	500 g	700 g

# TXF700 Technical Data



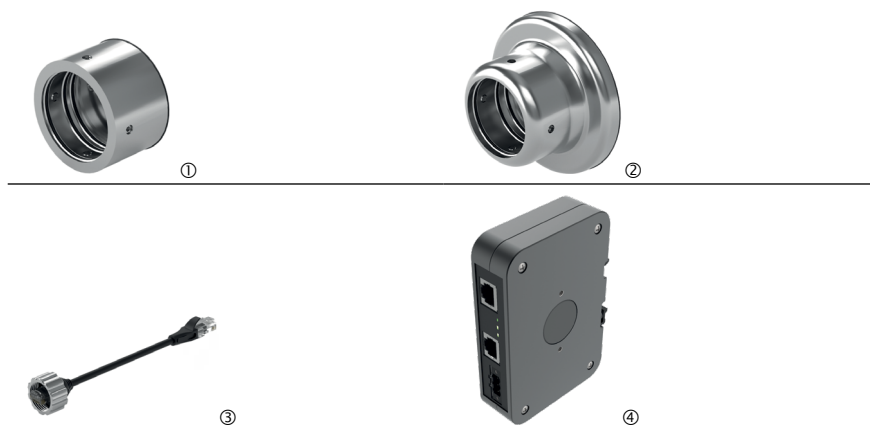
Type Code	TXF710-00VP20	TXF715-00VP20	TXF721-00VP20
ID	100007845	100017847	100017849
<b>Display/Touch</b>			
Display	TFT color	TFT color	TFT color
Touch	Capacitive	Capacitive	Capacitive
Active screen area	10.1"	15.6"	21.5"
Resolution (pixels)	1280 × 800	1366 × 768	1920 × 1080
Format	16 : 9	16 : 9	16 : 9
Brightness	400 Cd/m <sup>2</sup>	400 Cd/m <sup>2</sup> typ.	400 Cd/m <sup>2</sup> typ.
Dimmable	Yes (up to 0 %)	Yes (up to 0 %)	Yes (up to 0 %)
<b>System</b>			
Processor	ARM Cortex-A9 dual core 800 MHz	ARM Cortex A9 quad core 800 MHz	ARM Cortex-A9 quad core 800 MHz
Flash memory	4 GB	8 GB	8 GB
RAM	1 GB	2 GB	2 GB
Memory expansion	USB	USB	USB
Real-time clock	Yes (battery-backed)	Yes (battery-backed)	Yes (battery-backed)
Buzzer	Yes	Yes	Yes
Front LED	RGB	RGB	RGB
Integrated sensors	Vibration/tilt angle	Vibration/tilt angle	Vibration/tilt angle
<b>Interfaces</b>			
Ethernet ports	1 × 10/100 Mbit (PoE)	1 × 10/100 Mbit (PoE)	1 × 10/100 Mbit (PoE)
Serial ports	–	–	–
USB ports	1 × host v2.0 (special cable required)	1 × host v2.0 (special cable required)	1 × host v2.0 (special cable required)
SD Card	–	–	–
Expansion slot	–	–	–
<b>Wi-Fi</b>			
Wi-Fi standards	IEEE 802.11a/b/g	IEEE 802.11a/b/g	IEEE 802.11a/b/g
Frequency	2.4 GHz	2.4 GHz	2.4 GHz
Modes	Wi-Fi Access Point & Client	Wi-Fi Access Point & Client	Wi-Fi Access Point & Client
<b>Power Supply</b>			
PoE standard	IEEE 802.3af (PoE)	IEEE 802.3at (PoE+)	IEEE 802.3bt (4PPoE)
Power consumption	≤ 12 W	≤ 19 W	≤ 32 W
<b>General Data</b>			
Operating temperature	-20...+55 °C	-20...+55 °C	-20...+55 °C
Approvals	CE, cULus	CE, cULus	CE, cULus
Ex approval	UL Class 1 Div. 2	UL Class 1 Div. 2	UL Class 1 Div. 2
Type of protection	IP67	IP67	IP67
<b>Dimensions</b>			
Housing front (W × H × D)	264.5 × 183.1 × 16.5 mm	398.6 × 248 × 26.5 mm	534.1 × 325.6 × 26.5 mm
Weight	1200 g	4000 g	6000 g

# TXF700 Mounting Examples

## Pipe installation 1



This assembly can be used for display sizes 5" ... 10"

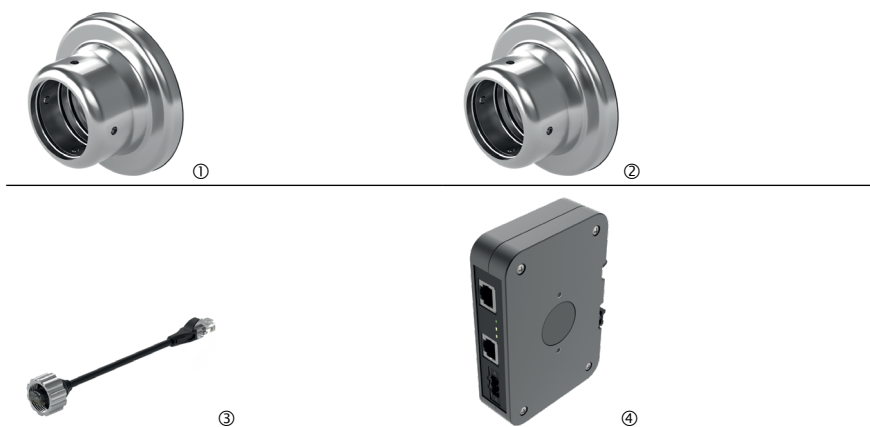


ID	Type Code	Description	Position
100020090	TXF-MT-01	Pipe support on the HMI	①
100020091	TXF-MT-02	Pipe support for wall/floor	②
100020100	TXF-M22G-RJ45-5M	M22 PoE Ethernet cable, 5 m	③
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	④

## Pipe installation 2



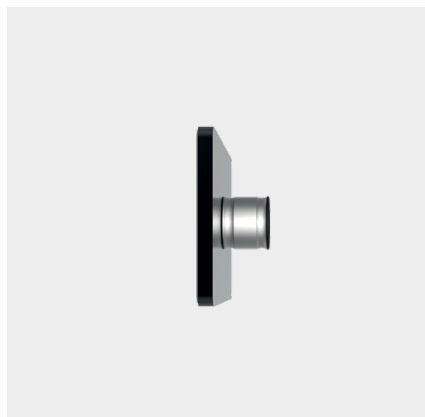
This assembly can be used for display sizes 15" ... 21"



ID	Type Code	Description	Position
100020091	TXF-MT-02	Pipe support for wall/floor	①
100020091	TXF-MT-02	Pipe support for wall/floor	②
100020100	TXF-M22G-RJ45-5M	M22 PoE Ethernet cable, 5 m	③
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	④

# TXF700 Mounting Examples

## Wall mounting 1



This assembly can be used for display sizes 5" ... 10"



ID	Type Code	Description	Position
100020092	TXF-MT-03	Wall bracket for TXF705, 707 and 710	①
100020100	TXF-M22G-RJ45-5M	M22 PoE Ethernet cable, 5 m	②
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	③

## Wall mounting 2



This assembly can be used for display sizes 15" ... 21"



ID	Type Code	Description	Position
100020093	TXF-MT-04	Wall bracket for TXF715 and TXF721	①
100020100	TXF-M22G-RJ45-5M	M22 PoE Ethernet cable, 5 m	②
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	③

# TXF700 Mounting Examples

## VESA mounting 1



This assembly can be used for display sizes 5" ...21"

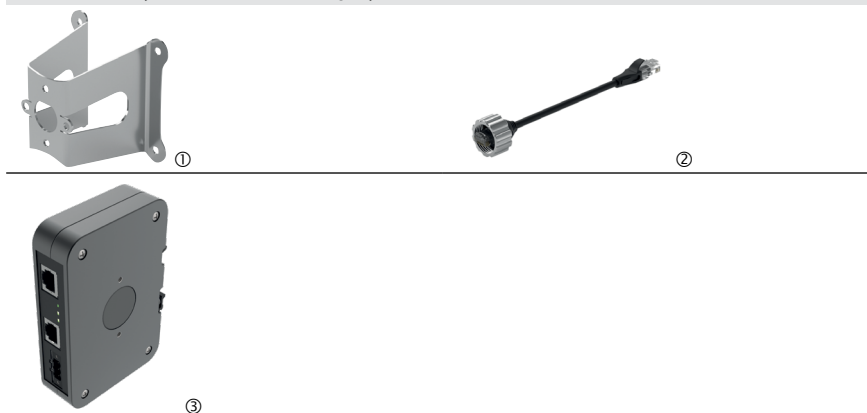


ID	Type Code	Description	Position
100020096	TXF-MV-01	VESA mounting for all TXF700	①
100020102	TXF-M22G-M22G-5M	M22 PoE Ethernet cable, 5 m	②
100017852	PSU20-PoE-36W02	PoE injector, RJ45 input, RJ45 M22 PoE output	③

## VESA mounting 2



This assembly can be used for display sizes 5" ...21"



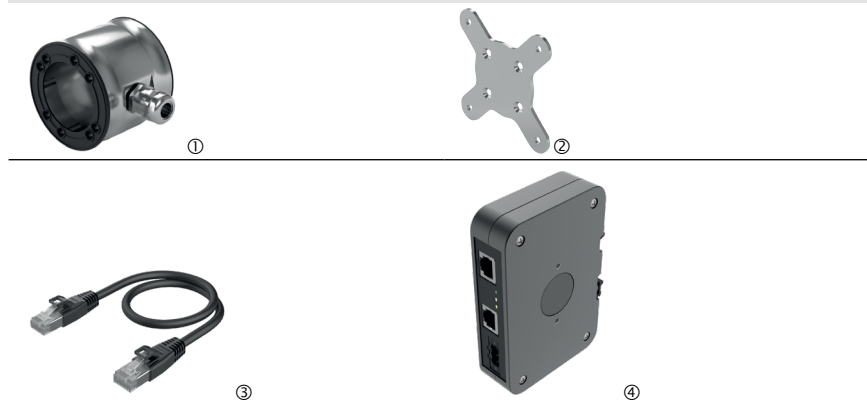
ID	Type Code	Description	Position
100020096	TXF-MV-01	VESA mounting for all TXF700	①
100020100	TXF-M22G-M22G-5M	M22 PoE Ethernet cable, 5 m	②
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	③

# TXF700 Mounting Examples

## Versatile accessories 1



This assembly can be used for display sizes 5" ... 10"

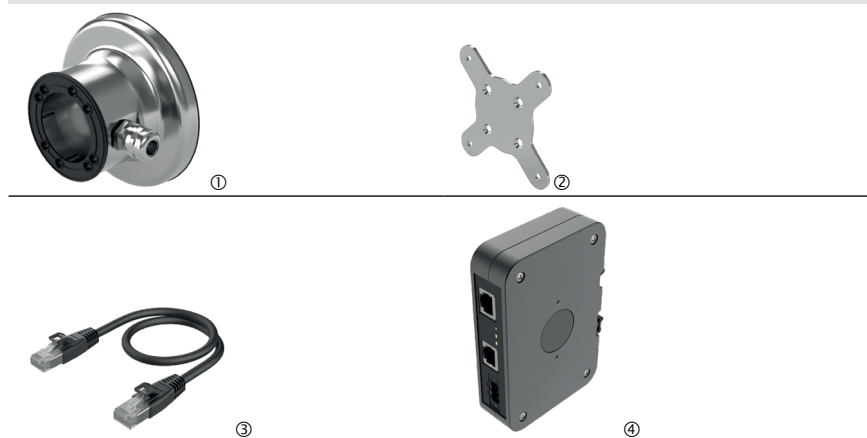


ID	Type Code	Description	Position
100022475	TXF-MT-05	Multi-purpose bracket with PG9 cable gland for TXF705, 707 and 710	①
100020097	TXF-MV-02	VESA mounting for all TXF700	②
	RJ45 Ethernet cable	Cable with a field-compatible RJ45 connector	③
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	④

## Versatile accessories 2



This assembly can be used for display sizes 15" ... 21"



ID	Type Code	Description	Position
100022477	TXF-MT-06	Multi-purpose bracket with PG9 cable gland for TXF715 and TXF721	①
100020097	TXF-MV-02	VESA mounting for all TXF700	②
	RJ45 Ethernet cable	Cable with a field-compatible RJ45 connector	③
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	④

# TXF700 Mounting Examples

## Gooseneck mounting



This assembly can be used for display sizes 5" ...10"



① Includes 5-m cable

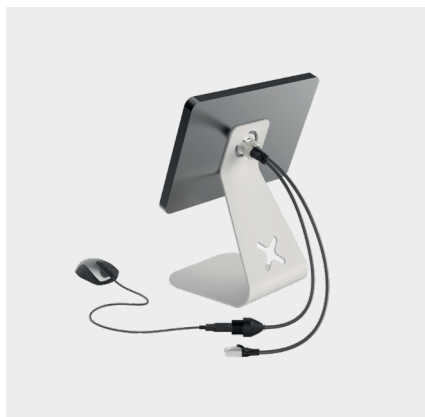


③

ID	Type Code	Description	Position
100020094	TXF-MG-01	Gooseneck mounting for TXF705, 707 and 710	①
	RJ45 Ethernet cable	Cable is included	②
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	④

The gooseneck attachment allows the TXF700 to be used in a wide range of scenarios away outside of industry (e.g. in restaurants, amusement parks, housing, etc.).

## Table stand 1, with USB port connection



This assembly can be used for display sizes 5" ...21"



①



②



③



④

ID	Type Code	Description	Position
100017845	TXF710-00VP20	10.1" TFT screen, Wi-Fi	①
100020098	TXF-TABLE-01	Table stand for all TXF700	②
100020101	TXF-M22G-RJ45-5M-USB-1M	M22 PoE Ethernet cable, RJ45, 5 m, USB connection 1 m	③
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, RJ45 PoE output	④

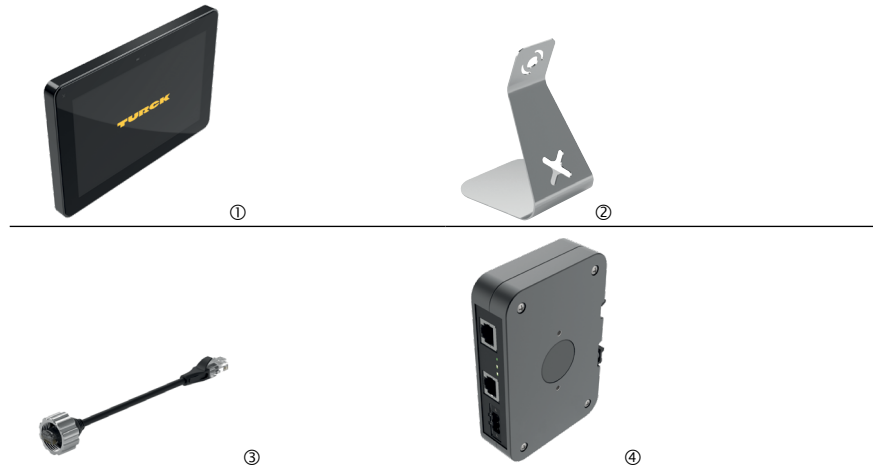


# TXF700 Mounting Examples

Table stand 2, without USB connection



This assembly can be used for display sizes 5" ...21"

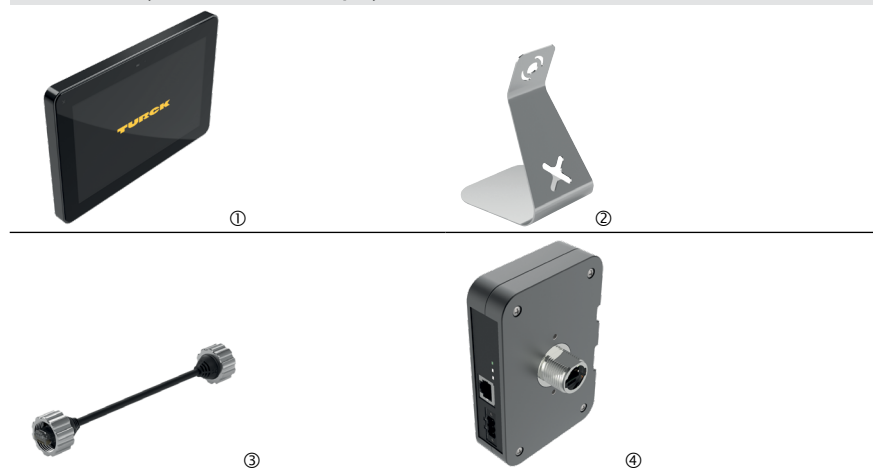


ID	Type Code	Description	Position
100017845	TXF710-00VP20	10.1" TFT screen, Wi-Fi	①
100020098	TXF-TABLE-01	Table stand for all TXF700	②
100020100	TXF-M22G-RJ45-5M	M22 PoE Ethernet cable, 5 m	③
100017850	PSU20-PoE-36W01	PoE injector, RJ45 input, M22 PoE output	④

Table stand 3, full IP67 connection, no USB connection



This assembly can be used for display sizes 5" ...21"



ID	Type Code	Description	Position
100017845	TXF710-00VP20	10.1" TFT screen, Wi-Fi	①
100020098	TXF-TABLE-01	Table stand for all TXF700	②
100020102	TXF-M22G-M22G-5M	M22 PoE Ethernet cable, 5 m	③
100017852	PSU20-PoE-36W02	PoE injector, RJ45 input, M22 PoE output	④

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100021 A 05/24

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