

TOX[®] Process Monitor CEP 600

Data sheet 100.25

2025 / 06



TOX® Process monitoring system

Monitoring production processes in real-time

The TOX® clinch monitoring system offer precise process monitoring at which the force values of several clinching tools can be illustrated. These compact devices find application especially on manual work stations.

The CEP 600 is a high-performance process monitoring system particularly for clinching. It makes seamless monitoring and documentation of quality parameters possible.

Here the devices read the force value data pairs from two measuring channels 'Ch1' and 'Ch2' during the measuring operation. The data are written to memory and can be displayed graphically. The resulting force function is compared with the specified data limits. An OK message is issued if the data limits are complied with, otherwise a NOK message is issued.

Configuration

The configuration and parametrization can be made directly on the device and quality data can be evaluated. Thanks to a logically ar-

ranged graphic illustration, the display makes a fast visual inspection possible.

Functions

- Monitoring of clinching processes via force-distance courses
- Window technology for min./max. warning limits monitoring
- Input via touch screen
- Export of quality data via SFTP, fieldbus or USB
- Comfortable diagnostic tools
- Statistics creation in the device
- Built-in and wall mounted version available
- Comprehensive sensor program, all common sensors can be connected

Optional fieldbus interfaces

- EtherNet IP
- EtherCat
- PROFINET

Technical data

Technical data	CEP600 installation version 7"	CEP600 installation version 10.1"	CEP600 wall version 10.1"
Supply voltage	24 V DC	24 V DC	24 V DC
Current consumption	≤ 1.5 A	≤ 1.5 A	≤ 1.5 A
Power supply connection	Phoenix Contact DFMC	Phoenix Contact DFMC	M12 connector
Display	7" TFT LCD WSVGA (1024 x 600) Color depth: 18-bit	10.1" TFT LCD WSVGA (1024 x 600) Color depth: 18-bit	10.1" TFT LCD WSVGA (1024 x 600) Color depth: 18-bit
Processor	ARM Cortex A7 2 x 1 GHz	ARM Cortex A7 2 x 1 GHz	ARM Cortex A7 2 x 1 GHz
Number of measuring programs	64	64	64
Dimensions (W x H x D)	Front frame: 200 mm x 133 mm x 7.5 mm	Front frame: 268 mm x 175 mm x 7.5 mm	Housing: 268 mm x 175 mm x 116.2 mm
Weight	575 g	910 g	2500 g
Ethernet	Ethernet (10 / 100 Mbit/s) EtherCat (1 Gbit/s)	Ethernet (10 / 100 Mbit/s) EtherCat (1 Gbit/s)	Ethernet (10 / 100 Mbit/s) EtherCat (1 Gbit/s)
USB	2 x USB 2.0	2 x USB 2.0	2 x USB 2.0
Digital (optional)	16 input / 8 output	16 input / 8 output	16 input / 8 output
Analog	Input (selectable 0 - 10 V / 4 -20 mA) Output + / - 10 V	Input (selectable 0 - 10 V / 4 -20 mA) Output + / - 10 V	Input (selectable 0 - 10 V / 4 -20 mA) Output + / - 10 V
Strain gauge	Non-isolated Input size voltage range adjustable via software From 4 and more channels with TOX® EdgeUnit	Non-isolated Input size voltage range adjustable via software From 4 and more channels with TOX® EdgeUnit	Non-isolated Input size voltage range adjustable via software From 4 and more channels with TOX® EdgeUnit
Fieldbus interfaces	CC40 Module (EtherCAT, Ethernet IP, PROFINET)	CC40 Module (EtherCAT, Ethernet IP, PROFINET)	CC40 Module (EtherCAT, Ethernet IP, PROFINET)
Housing	Plastic - PA66 CF25, RAL 9000, UL 94-H	Plastic - PA66 CF25, RAL 9000, UL 94-H	Stainless steel
Fastening type	Clamp mounting via fixing elements	Clamp mounting via fixing elements	VESA adapter
Protection class	IP 65 front plate, IP 20 housing, IP 65 TOX® EdgeUnit	IP 65 front plate, IP 20 housing, IP 65 TOX® EdgeUnit	IP 65 front plate, IP 40 housing, IP 65 TOX® EdgeUnit
Measuring channels	Force strain gauge Standard force signal Standard distance signal	Force strain gauge Standard force signal Standard distance signal	Force strain gauge Standard force signal Standard distance signal
Measuring channel resolution	16 bit	16 bit	16 bit
Max. sampling rate	1 kHz	1 kHz	1 kHz
Monitoring window	Min. / max. and Warning limits min. / max.	Min. / max. and Warning limits min. / max.	Min. / max. and Warning limits min. / max.
Password protection	Yes	Yes	Yes
Operating temperature range	+5 °C - +55 °C	+5 °C - +55 °C	+5 °C - +55 °C
Operating languages	German, English	German, English	German, English

Code Matrix

CEP 600.002.00.00

Version

Number of channels

Hardware version

Customer interface

Firmware version

Interface

Designation	Description
Version	0 = Built-in device 7" 0 = Built-in device 10.1" 5 = Wall housing version 10.1"
Number of channels	02 = 2 x Y-channel 04 = 4 x Y-channel 08 = 8 x Y-channel 12 = 12 x Y-channel
Hardware version	0 = Y1 / Y2-channel in strain gauge / 0 - 10 V 1 = TOX® EdgeUnit in strain gauge / 0 - 10 V
Customer interface	0 = Digital 16 input / 8 output 3 = Profinet CU 5 = Ethernet IP 8 = EtherCAT 9 = EthernetIP CU-Slave ETH / EthIP / Power M12D / M12D / 7 / 8" plugs (only in wall housing version)
Firmware version	0 = Standard, no process sequence control 1 = Process sequence control, on request
Interface	0 = TOX standard 1 = Customer-specific with separate material number

Connections

Installation version rear side

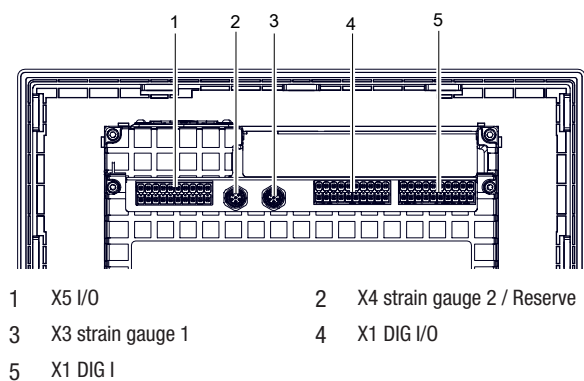


Fig. 1 Installation version connections rear side

Installation version underside

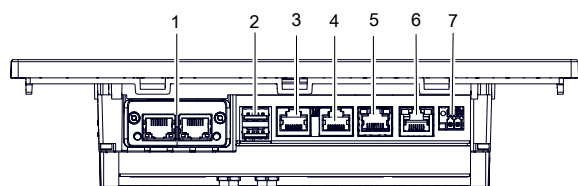


Fig. 2 Installation version connections underside

Installation version wall version

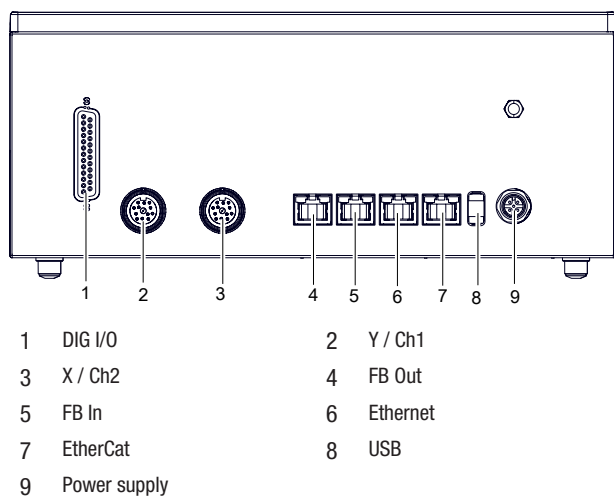


Fig. 3 Wall version connections

Dimensions

7" Installation version

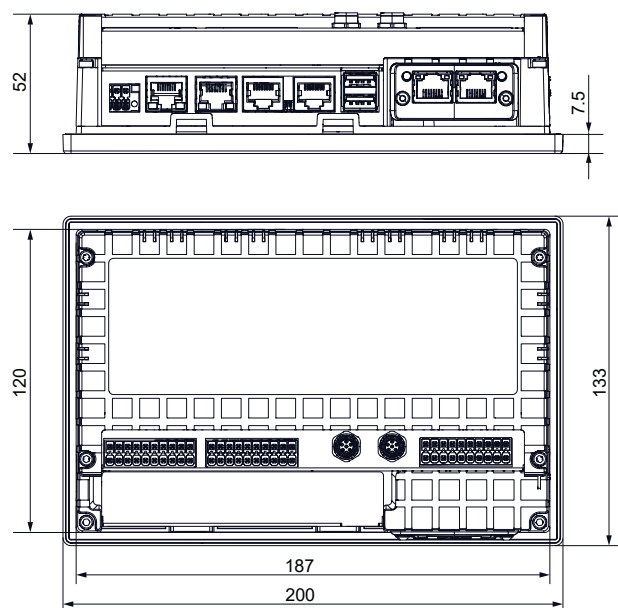


Fig. 4 7" Installation version dimensions

10.1" Installation version

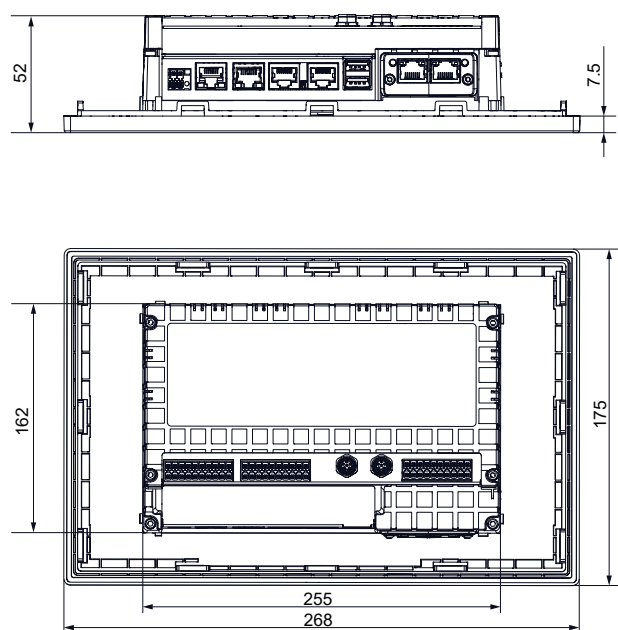


Fig. 5 10.1" Installation version dimensions

Dimensions

10.1"wall version

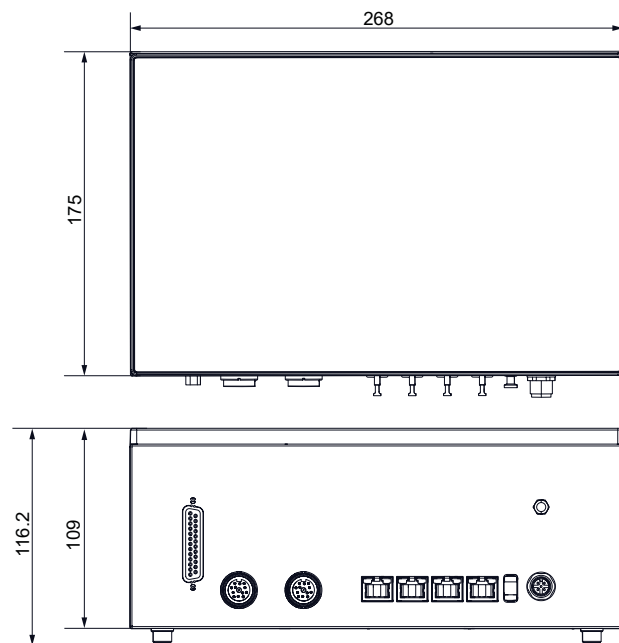


Fig. 6 10.1"wall version dimensions

Interface

Curve data, final values and setting parameters can be transmitted securely encrypted via SFTP client.

