INSEVIS

Product Information

S7-Panel-PLC

PC700P

(valid from PLC version PC700P-xxx-**03**)

Changes to older versions of this document

Rev. 02 → 03: description of Profibus-signals made compatible to Siemens-manuals
Rev. 03 → 04: new front foil, new images, new design line, connectors added

Description

Panel-PLC with **TFT-color touch display**

PC700P 7" TFT
(800x480 Pixel/ WVGA)

Standard configuration:
• **RS232 with**
  - free ASCII-protocol

• **RS485 with**
  - free ASCII-protocol
  - Modbus RTU
  - with switchable terminate resistors for RS485

• **Ethernet with**
  - RFC1006,
  - Send/ Receive via TCP and UDP,
  - Modbus TCP

• **CAN with**
  - protocol compatible to CANopen®
  - layer2-communication
  - with switchable terminate resistors for CAN

• **Micro-SD-slot**
  - for SD-cards up to 8 GByte

• **Run/Stop-switch**

• **Status LEDs** for Power, Battery, Error, Run

• **Inserting stripes** for Logo and identification (thereby customized adaption possible easy)

optional configuration:
  (optional)
  - **Profibus DP-Master**
  - **Profibus DP-Slave**
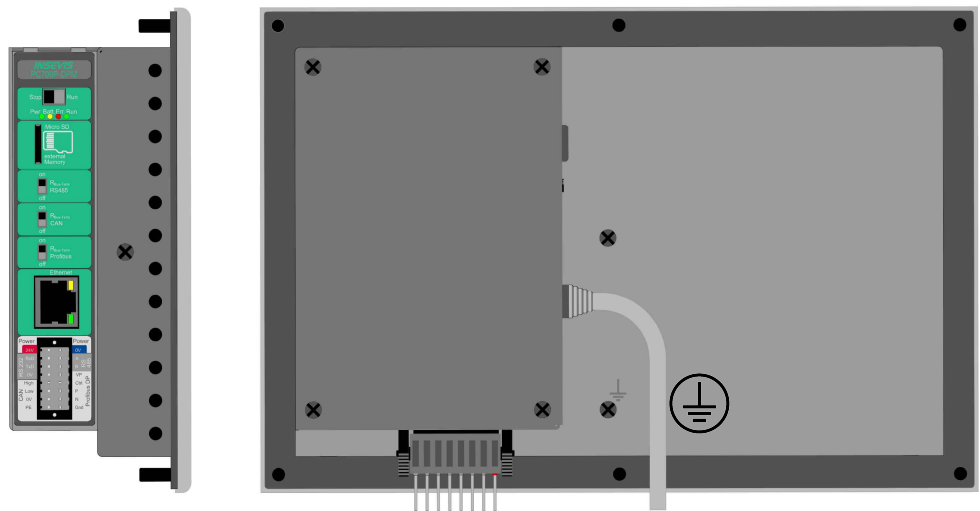 - with switchable terminate resistors for Profibus

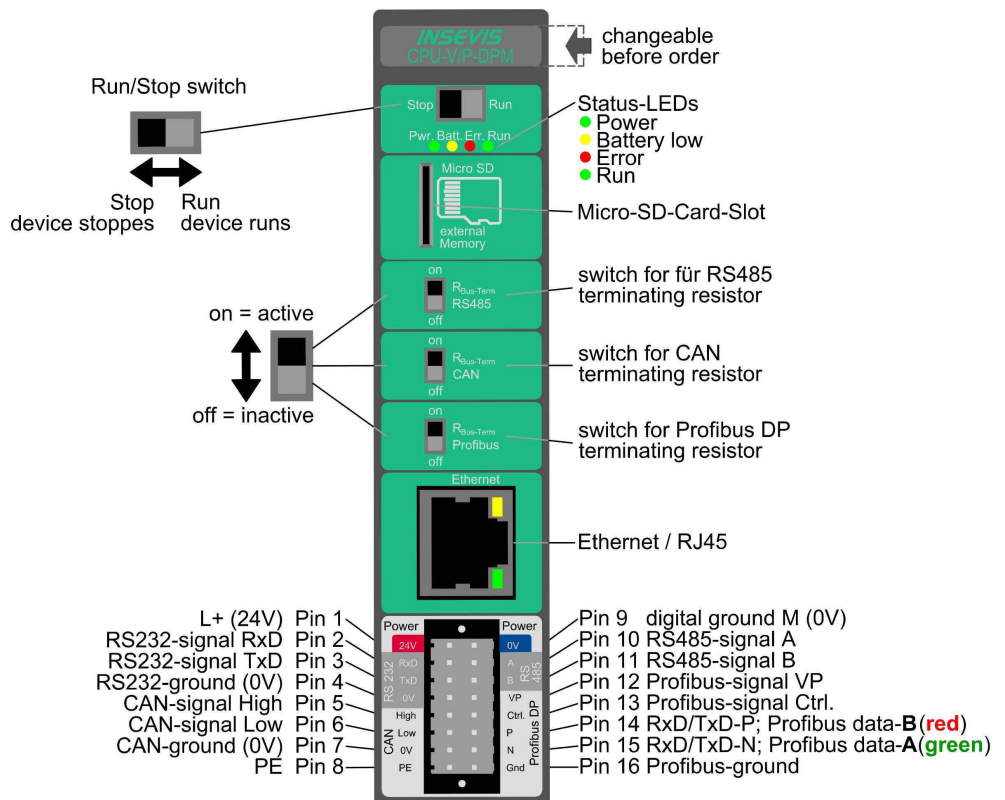*Figure above: Panel-PLCs PC700P, rear view and view from the side*

Run/Stop switch

Stop — device stoppes
Run — device runs

on = active

off = inactive

changeable before order

Status-LEDs
● Power
● Battery low
● Error
● Run

Micro-SD-Card-Slot

switch for für RS485 terminating resistor

switch for CAN terminating resistor

switch for Profibus DP terminating resistor

Ethernet / RJ45

L+ (24V) Pin 1
RS232-signal RxD Pin 2
RS232-signal TxD Pin 3
RS232-ground (0V) Pin 4
CAN-signal High Pin 5
CAN-signal Low Pin 6
CAN-ground (0V) Pin 7
PE Pin 8

Pin 9 digital ground M (0V)
Pin 10 RS485-signal A
Pin 11 RS485-signal B
Pin 12 Profibus-signal VP
Pin 13 Profibus-signal Ctrl.
Pin 14 RxD/TxD-P; Profibus data-**B**(red)
Pin 15 RxD/TxD-N; Profibus data-**A**(green)
Pin 16 Profibus-ground

Figure above: Identification of all CPUs of all Panel-PLCs basic devices with CPU type V or P and with Profibus DP Master

Technical data	Device
Dimensions W x H x D (mm) Cut out W x H (mm) Weight	222 x 147 x 49 203 x 126 ca. 800 g
Operating temperature range Storage temperature range	-20°C ... +60°C (without condensation) -30°C ... +80°C

IP-protection class
  front panel
  rear side
	
	IP65
	IP41

Connection technology	connector with pin-marked pushers and 2 lift-arms or 2x bolt flanges on side (cage clamp technology) for cross sections up to max. 1,5mm²
Load voltage L+	24V DC (11 V ... 30V DC)
Current consumption Power dissipation	100mA ... 750mA 3W(typ.) 10W(max.)
Start-up current	< 3A
Diagonal of display (inch) Display resolution (pixel)	7" (178mm) 800x480 Pixel (WVGA)
Display unit Operating unit	TFT display with 16Bit colours analog resisitive touch screen
Visualization software Reference unit	VisuStage PC700

| Technical data	CPU
CPU-type	**Type P** (PC700**P**)
Working memory = battery backed load memory Diagnostic buffer	640kB, thereof 384 kByte remanent data 100 messages (all remanent)

Flash
  internal for visualization
  external memory card
	
	24 MByte
	Micro SD, up to max. 8 GByte (not necessary for operation)

OB, FC, FB, DB Lokal data Number of in- and outputs Process image Number of Merkerbytes Number of Taktmerker Number of timer, counter Depth of nesting	each 1.024 32kByte (2kByte per block) in each case 2.048 Byte (16.384 Bit) addressable in each case 2.048 Byte (default set is 128 Byte) 2.048 (remanence adjustable, default set is 0..15) 8 (1 Merkerbyte) in each case 256 (each remanence adjustable, default set is 0) up to 16 code blocks
Real-time clock elapsed hour counter	yes (accumulator-backed hardware clock) 1 (32Bit, resolution 1h)
Program language Program system	STEP 7® - AWL, KOP, FUP, S7-SCL, S7-Graph from SIEMENS SIMATIC® Manager from SIEMENS or compatible products
Operating system Program unit to reference	compatible to S7-300® from SIEMENS CPU 315-2PNDP
Serial interfaces (protocols)	COM1: RS 232 (free ASCII) COM2: RS 485 (free ASCII, Modbus-RTU)
Ethernet (protocols)	Ethernet: 10/100 Mbit with CP343 functionality (RFC1006, TCP, UDP, Modbus-TCP)
CAN (protocols)	CAN-Telegrams (Layer 2), compatible to CANopen® MasterSlave 10 kBaud ... 1 MBaud
Profibus (protocols)	Profibus DP V0 master/ slave 9,6kBaud ... 12 MBaud
Onboard periphery	none
Decentral periphery	- INSEVIS- Periphery (with automatic configuration via „ConfigStage") - all CANopen® slaves according to DS401 - all Profibus DP-V0-slaves - diverse external periphery families

Control panel cut out

Dimensions

Cut out
W x H (mm) 203 x 126
6 holes with D 4,5mm

Mounting depth
  ca. 49mm max.

Wiring outlet
- RJ45: in the center to the right
- connector 2x16 to the bottom
  (rear view and
  horizontal mounting)

- RJ45: in the center down
- connector 2x16 to the left
  (rear view and
  vertical mounting)
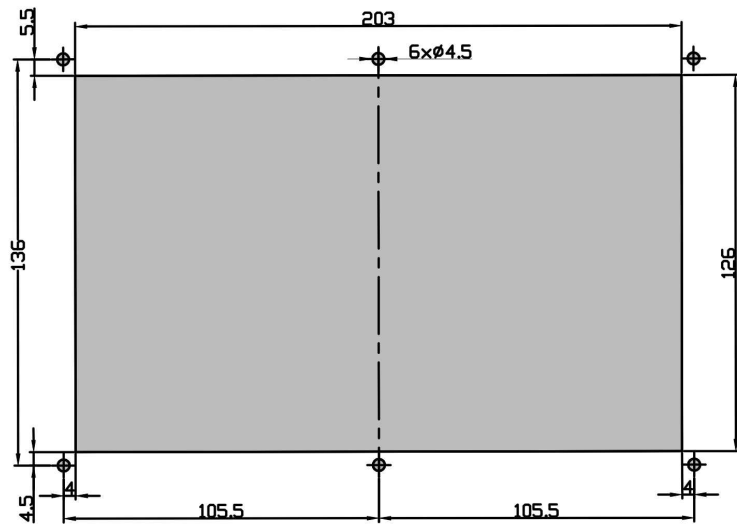
<u>Drill jig</u>

**An 1:1 pattern as drill jig is available as PDF at INSEVIS web site for this product
Print it 1:1 and use it for marking the cut out.**

Ordering data devices

Identification	Standard	with Profibus DP Master	with Profibus DP Slave
S7-Panel-PLC **PC700P**	PC700P-0-03	PC700P-DPM-03	PC700P-DPS-03

Ordering data accessoires

Identification / Order-No.	Identification / Order-No.
Connector 2x8pin (for PLC) / E-CON16-00	Mounting /grounding set for 5,7" / 7" -devices* / E-MNT57-00 (PU10 pcs.)
Micro SD-card 1/2/4/8GB (ext. memory) / E-MSD11/2/4/8-00	Profibus-adapter for 12MBaud-nets / E-AD-DP12
OEM-Firmware with customized logo included / SW-BS-OEM	OEM-Inserting stripe H for logo / identification for rear side (PU100 pcs.)

* (1x already part of first deliveries scope)

Qualified personnel
All devices described in this manual may only be used, built up and operated together with this documentation. Installation, initiation and operation of these devices might only be done by instructed personnel with certified skills, who can prove their ability to install and initiate electrical and mechanical devices, systems and current circuits in a generally accepted and admitted standard.

Manuals, sample programs
Additional documentation by manuals is available as well sample applications at the download area of www.insevis.com in English language for free download.

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