Berthel

PanelCon 20

As a front panel installation control system, compatible with the Siemens S7 300 CPUs, this extremely compact panel PLC impresses with its multitude of visualisation and communication possibilities, periphery extensions and a large virtual memory, e.g. for data logging and trend archiving. This S7 PLC is the unrivalled market leader in terms of power density.

General

• Power supply:	24 V DC (18 - 36 V DC)
• Dimensions:	122 x 125 x 50 mm (W x H x D)
• Cut-out dimensions:	106,5 x 104,4 mm
• Weight:	500 g
• Operating temperature range:	0 … +50° C
• Storage/transportation temperature range:	-30 … +80° C
• Humidity:	25 - 85 % relative humidity
• CE certification:	according to EN 61000-6-2 and EN 61000-6-4
• Place of manufacture:	Made in Germany
• Protection class:	IP65 frontally

Panel

- Configurable with QUICKMENU 5 (see reverse)
- Display: 3" monochrome graphics LCD, 160 x 80 pixels
- Background lighting: white LED
- Typical backlight service life at 25° C: 50.000 hours (shelf life)
- Contrast setting: Potentiometer
- Membrane keyboard with 10 keys (pressed), of which 5 are function keys (doubly allocatable)
- Input format: numerical via keyboard

Onboard periphery (optional)

- 16 digital inputs 24 V DC / 16 digital outputs 24 V DC / 0.5A

Decentralised periphery

- Berthel CAN periphery (auto mode – without CAN experience)
- Foreign CAN slaves (e.g. WAGO, Lenze, LUST, SEW...)

PLC

- Programmable with STEP 7® from Siemens
- 1 PG interface RS 232
- 1 free serial interface RS 232
- Battery-backed virtual memory: 64KB code, 640KB data
- 4096 flags, 512 timers, 512 counters, 1024 FBs, FCs, DBs each
- Internal flash memory for backup of the S7 application program/visualisation project data
- SD/MMC slot (for external memory up to 4GB for trend and alert archiving and S7 program)
- Real-time clock
- Ethernet 10 / 100 Mbit
- Adjustable load distribution between PLC and visualisation
- CANopen master / onboard

Communication / protocols

Fieldbuses:

- CAN (CANopen and CAN Layer2) Special feature: Berthel CANopen periphery can be applied in auto mode without CAN knowledge

Ethernet:

- RFC 1006 (S7 protocol)
- SEND/RECEIVE via TCP/UDP
- UNSPECIFIED UDP
- MODBUS-TCP
- HTTP (web server), SMTP client (email), FTP (server and client)

Serial:

- Free ASCII protocol DK3964 and RK512
- MODBUS-RTU (master and slave)

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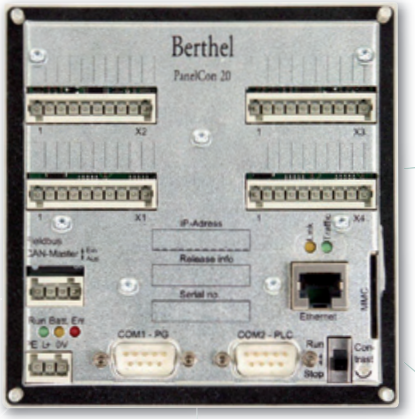
S7-PLC

Programming / configuring
- Programmable with STEP 7® from Siemens or MHJ, IBH
- PC/panel visualisation with ZENON, ESA ...
- Remote maintenance via modem or router

External storage medium
SD/MMC card slot
- Data logger function
- Archiving function
- Program update

RS 232
- ModbusRTU
- DK3964 and RK512
- ASCII



Local periphery
- Digital inputs
- Digital outputs

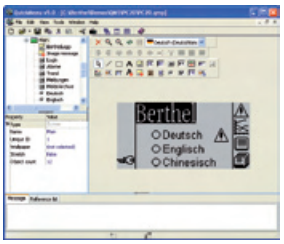
CANopen
Decentralised periphery
- Berthel
- WAGO, Beckhoff
- BTR ...

Servos, frequency converter
- Lust, SEW, Lenze
- Metronix, Spat ...

Ethernet
- TCP/IP
- Modbus TCP
- CP343 – functionality
- RFC 1006
- send, receive
- fetch, write
- SMTP, FTP

QUICKMENU 5 “the S7 visualisation“

You can expect a modern, ergonomic visualisation tool, optimally attuned to the selected target device. The configuring philosophy uses the most successful commercial graphic development environments as reference. Without causing an overload, maximum functionality and operating comfort is provided. You will quickly recognise the coherencies in the typical examples. Designing the visualisation function becomes a pleasure, intuitively operable and self-explanatory. Try it out yourself, also without target device with integrated simulator. A full version is available on the internet free of charge.



Technical data

• Executable under:	WINDOWS®2000 / XP / VISTA
• Character set:	UNICODE-16
• Languages:	multilingual, no limitations
• Variable format:	S7 300 compatible
• Number of variables:	no limitation
• Dynamic texts:	no limitation
• Malfunction alert system:	integrated
• Alarm alerts:	100 (battery-backed)
• Incident alerts:	100
• Alarm and alerts archive/ alerts archive viewer:	up to 4GB (recording possible over years)
• Trending system:	4 trends each with 8 channels in different formats
• Trend archiving:	up to 4GB (recording possible over years)
• Formula management:	256 formulas, 1024 records, 256 variables/formula
• Password management:	10 password levels
• Bar graph / progress indicator:	integrated
• Radio buttons, check boxes:	integrated
• Buttons, images and image lists:	integrated
• Image formats:	vector graphics and bitmaps (wmf, jpeg, bmp...)
• Project data produced:	DBs in S7 300 compatible WDL format
• Project simulation:	integrated

Technical data

• Languages, text import/export:	integrated
• Import of S7 symbol files:	integrated
• Online functions:	upload/general reset (serial or via Ethernet)
• Online help:	German / English
• User interface, language:	German / English

Special features

- STEP 7® compatible
- No licensing costs connected to Berthel control systems and panels
- Very short training period
- Produces extremely compact project data
- Can be combined with STEP 7® projects and transferred with the STEP 7® project (from QIII / 2008)
- Can be applied in connection with every S7 control system as a visualisation tool
- Remote visualisation with Visual Agent from Berthel possible via router/Internet
- Extremely low use of system resources
- Very short development cycles, minimal installation outlay
- Integrated simulator
- Industrial vector graphics library included as DEMO

Special requests?

Berthel already makes economic solutions specified by client for their special requirements in case of small ranges possible. Send your request for a concept free of charge!