

# Berthel

## PanelCon 70

This panel PLC, compatible with Siemens S7 300 CPUs, with colour-touch LCD and Ethernet connection is absolutely unique in this price range. An entry-level model in the touch-controlled application category with a multitude of innovative functions for communication, visualisation and archiving.



### General

- Power supply: 24 V DC (18 - 36 V DC)
- Dimensions: 182 x 140 x 50 mm (W x H x D)
- Cut-out dimensions: 163 x 117,8 mm
- Weight: 800 g
- Operating temperature range: 0 ... +50° C
- Storage/transportation temperature range: -20 ... +70° 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: 5.7" STN QVGA colour LCD, resolution: 320 x 240 pixels with 256 colours
- Touch: resistive Touch
- Background lighting: CCFL
- Typical backlight service life at 25° C: 40.000 hours (shelf life)
- Contrast setting: Software
- Input format: alphanumeric via virtual keypad

### 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...)
- External profibus 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: 128KB code, 1320KB 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

### Communication / protocols

#### Field busses – optional:

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

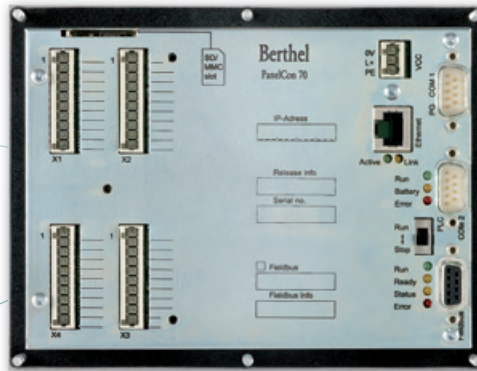
#### Ethernet:

- 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)

# 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

Local periphery

- Digital inputs
- Digital outputs

External storage medium  
SD/MMC card slot

- Data logger function
- Archiving function
- Program update

RS 232

- ModbusRTU
- DK3964 and RK512
- ASCII

Profibus (optional)

- Decentralised periphery
- S7 slaves
- Drives

CANopen  
Decentralised periphery

- Berthel
- WAGO, Beckhoff
- BTR ...

Servos, frequency converter

- Lust, SEW, Lenze
- Metronix, Spat ...

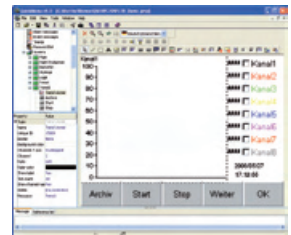
Ethernet

- 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 message system:	integrated
• Alarm messages:	100 (battery-backed)
• Incident messages:	100
• Alarm and messages archive/ messages 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 effort / 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!