# Berthel

### **EcoPanel 20**

Compact dimensions and performance capacity do not exclude each other. That becomes clear with the EcoPanel 20. Graphics display, top-quality ergonomic keypad, large memory and high-performance visualisation software free of charge makes the EcoPanel 20 a true highlight in its class. Additional possibilities for archiving and assigning or connecting to the S7 world are available in the Ethernet version (EP20-E).



| General                                     |  |
|---|--|
| • Power supply:                             | 24 V DC (18 - 36 V DC)                     |
| • Dimensions:                               | 120 x 123 x 50 mm (W x H x D)              |
| • Cut-out dimensions:                       | 106,5 x 104,4 mm                           |
| • Weight:                                   | 500 g                                      |
| Operating temperature rang                  | ge: 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
- SD/MMC slot for external memory up to 4GB for trend and message archiving (in EP 20-E)
- 960 KB battery-backed virtual memory for visualisation projects

### **Communication / protocols**

### Ethernet:

• Interface for configuration and connection to Berthel control systems and to all S7 control systems via RFC1006 (in EP 20-E)

## 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.

### Tree view

The tree view is the central platform/hub for all objects. You navigate via it to the elements and objects to be configured.

Here you configure languages, texts, trends, formulas, screen displays, etc. With a few clicks these are again brought to the surface for processing.



Tree view

### **Image view**

Creating the templates is the easiest of procedures. A tool bar provides you with all the objects for the selected target device. After selecting an object "drag it onto the example: project image trend desktop" and complete the dialogue pages offered. You can find all created objects again in the tree view.





Example: message archive project image

#### Parameter view

pretry Value

Trend viewer

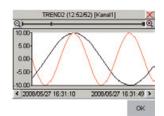
Tr

Parameter view

object is done in the parameter view. For that purpose an online help function guides you with extensive explanations and configuration possibilities.

The fine adjustment for the selected

A user manual is completely superfluous



Project image in the simulator

### Simulator / Viewer

Run your created project on the PC. Set the PLC variables at your own discretion, start trends, set off the alarms, animate the bar graphs and progress indicators.

Start the archiving and view the result of the recording or use the simulator as "viewer" for recorded production data.

| Technical data                                   |   |
|--|---|
| • Executable under:                              | WINDOWS®2000 / XP / VISTA                           |
| Character set:                                   | UNICODE-16  |
| • Languages:                                     | multilingual, no limitations                        |
| Variable format:                                 | S7 300 compatible                                   |
| <ul> <li>Number of variables:</li> </ul>         | no limitation                                       |
| Dynamic texts:                                   | no limitation                                       |
| Malfunction message system:                      | integrated  |
| Alarm messages:                                  | 100 (battery-backed)                                |
| Incident messages:                               | 100   |
| <ul> <li>Alarm and messages archive /</li> </ul> |   |
| 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  |
| <ul> <li>Radio buttons, check boxes:</li> </ul>  | 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                   |   |
| <ul> <li>Very short training period</li> </ul>                                       |   |
| 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 resort   | ources  |
| Very short development cycles, minimal installation effort / outlay                  |   |
| <ul> <li>Integrated simulator</li> </ul>   |   |
| <ul> <li>Industrial vector graphics librar</li> </ul>                                | v 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!