



SIMATIC HMI, KTP700 BASIC, BASIC PANEL,  
KEY AND TOUCH OPERATION,  
7" TFT DISPLAY, 65536 COLORS,  
PROFINET INTERFACE,  
CONFIGURATION FROM WINCC BASIC V13/ STEP7  
BASIC V13,  
CONTAINS OPEN SOURCE SW WHICH IS PROVIDED  
FREE OF CHARGE FOR DETAILS SEE CD

## Display

|                  |          |
|------------------|----------|
| Screen diagonal  | 7 in     |
| Display width    | 154.1 mm |
| Display height   | 85.9 mm  |
| Number of colors | 65536    |

## Resolution (pixels)

|                             |     |
|-----------------------------|-----|
| Horizontal image resolution | 800 |
| Vertical image resolution   | 480 |

## Backlighting

|                              |         |
|------------------------------|---------|
| MTBF backlighting (at 25 °C) | 20000 h |
| Dimmable backlight           | Yes     |

## Control elements

### Keyboard fonts

|                            |                         |
|----------------------------|-------------------------|
| Number of function keys    | 8                       |
| Keys with LED              | No                      |
| System keys                | No                      |
| Numeric/alphabetical input |                         |
| Numeric keyboard           | Yes ; Onscreen keyboard |
| Alphanumeric keyboard      | Yes ; Onscreen keyboard |

|                                       |                      |
|---------------------------------------|----------------------|
| <b>Touch operation</b>                |                      |
| Design as touch screen                | Yes                  |
| <b>Installation type/mounting</b>     |                      |
| Mounting in portrait format possible  | Yes                  |
| Mounting in landscape format possible | Yes                  |
| <b>Supply voltage</b>                 |                      |
| Type of supply voltage                | 24 V DC              |
| Rated value (DC)                      | 24 V                 |
| permissible range, lower limit (DC)   | 19.2 V               |
| permissible range, upper limit (DC)   | 28.8 V               |
| <b>Input current</b>                  |                      |
| Current consumption (rated value)     | 230 mA               |
| Inrush current A <sup>2</sup> s       | 0.2 A <sup>2</sup> s |
| <b>Power</b>                          |                      |
| Power consumption, typ.               | 5.5 W                |
| <b>Processor</b>                      |                      |
| Processor type                        |                      |
| X86                                   | No                   |
| ARM                                   | Yes                  |
| <b>Memory</b>                         |                      |
| Flash                                 | Yes                  |
| RAM                                   | Yes                  |
| Usable memory for user data           | 10 Mbyte             |
| <b>Type of output</b>                 |                      |
| Acoustics                             |                      |
| Buzzer                                | Yes                  |
| Speaker                               | No                   |
| <b>Time of day</b>                    |                      |
| <b>Clock</b>                          |                      |
| Hardware clock (real-time clock)      | Yes                  |
| Software clock                        | Yes                  |
| Battery-backed                        | Yes                  |
| Synchronizable                        | Yes                  |
| <b>Interfaces</b>                     |                      |
| Number of RS 485 interfaces           | 0                    |
| Number of USB interfaces              | 1                    |
| Number of SD card slots               | 0                    |
| Number of parallel interfaces         | 0                    |

|  |                               |
|--|-------------------------------|
| <b>Number of 20 mA interfaces (TTY)</b>                                  | 0                             |
| <b>Number of RS 232 interfaces</b>                                       | 0                             |
| <b>Number of RS 422 interfaces</b>                                       | 0                             |
| <b>Number of other interfaces</b>  | 0                             |
| <b>With software interfaces</b>  | No                            |
| <b>Industrial Ethernet</b>   |                               |
| <b>Number of industrial Ethernet interfaces</b>                          | 1                             |
| <b>Industrial Ethernet status LED</b>                                    | 2                             |
| <b>Protocols</b>   |                               |
| <b>PROFINET</b>  | Yes                           |
| <b>Supports protocol for PROFINET IO</b>                                 | No                            |
| <b>IRT supported</b>   | No                            |
| <b>PROFIBUS</b>  | No                            |
| <b>MPI</b>   | No                            |
| <b>Protocols (Ethernet)</b>  |                               |
| <b>TCP/IP</b>  | Yes                           |
| <b>DHCP</b>  | Yes                           |
| <b>SNMP</b>  | Yes                           |
| <b>DCP</b>   | Yes                           |
| <b>LLDP</b>  | Yes                           |
| <b>WEB characteristics</b>   |                               |
| <b>HTTP</b>  | No                            |
| <b>HTML</b>  | No                            |
| <b>Further protocols</b>   |                               |
| <b>CAN</b>   | No                            |
| <b>MODBUS</b>  | Yes ; Modicon (MODBUS TCP/IP) |
| <b>Supports protocol for EtherNet/IP</b>                                 | Yes                           |
| <b>Interrupts/diagnostics/status information</b>                         |                               |
| <b>Diagnostic messages</b>   |                               |
| <b>Diagnostic information readable</b>                                   | No                            |
| <b>EMC</b>   |                               |
| <b>Emission of radio interference acc. to EN 55 011</b>                  |                               |
| <b>Emission of radio interferences acc. to EN 55 011 (limit class A)</b> | Yes                           |
| <b>Emission of radio interference acc. to EN 55 011 (limit class B)</b>  | No                            |
| <b>Degree and class of protection</b>                                    |                               |
| <b>Enclosure Type 4 at the front</b>                                     | Yes                           |
| <b>Enclosure type 4x at the front</b>                                    | Yes                           |

| Standards, approvals, certificates                                    |        |
|---|--------|
| CE mark   | Yes    |
| KC approval   | Yes    |
| cULus   | Yes    |
| RCM (former C-TICK)   | Yes    |
| Use in hazardous areas  |        |
| ATEX Zone 2   | No     |
| ATEX Zone 22  | No     |
| cULus Class I Zone 1  | No     |
| cULus Class I Zone 2, Division 2                                      | No     |
| FM Class I Division 2   | No     |
| Ambient conditions  |        |
| maximum permissible angle of inclination without external ventilation | 35 °   |
| Operating temperature   |        |
| Operation (vertical installation)                                     |        |
| in vertical mounting position, minimum                                | 0 °C   |
| in vertical mounting position, maximum                                | 50 °C  |
| Operation (max. tilt angle)   |        |
| at maximum tilt angle, minimum  | 0 °C   |
| at maximum tilt angle, maximum  | 40 °C  |
| Operation (vertical installation, portrait format)                    |        |
| in vertical mounting position, minimum                                | 0 °C   |
| in vertical mounting position, maximum                                | 40 °C  |
| Operation (max. tilt angle, portrait format)                          |        |
| at maximum tilt angle, minimum  | 0 °C   |
| at maximum tilt angle, maximum  | 35 °C  |
| Storage/transport temperature   |        |
| Min.  | -20 °C |
| max.  | 60 °C  |
| Relative humidity   |        |
| max. relative humidity  | 90 %   |
| Operating systems   |        |
| Windows CE  | No     |
| proprietary   | Yes    |
| [nicht versorgt: TAK_ACE281_001_000]                                  |        |
| other   | No     |
| Configuration   |        |
| Message indicator   | Yes    |

|  |   |
|--|---|
| <b>With alarm logging system (incl. buffer and acknowledgment)</b> | Yes   |
| <b>Process value display (output)</b>                              | Yes   |
| <b>Process value default (input) possible</b>                      | Yes   |
| <b>Recipe administration</b>                                       | Yes   |
| <b>Configuration software</b>                                      |   |
| <b>STEP 7 Basic (TIA Portal)</b>                                   | Yes ; via integrated WinCC Basic (TIA Portal) |
| <b>STEP 7 Professional (TIA Portal)</b>                            | Yes ; via integrated WinCC Basic (TIA Portal) |
| <b>WinCC flexible Compact</b>                                      | No  |
| <b>WinCC flexible Standard</b>                                     | No  |
| <b>WinCC flexible Advanced</b>                                     | No  |
| <b>WinCC Basic (TIA Portal)</b>                                    | Yes   |
| <b>WinCC Comfort (TIA Portal)</b>                                  | Yes   |
| <b>WinCC Advanced (TIA Portal)</b>                                 | Yes   |
| <b>WinCC Professional (TIA Portal)</b>                             | Yes   |
| <b>Languages</b>   |   |
| <b>Online languages</b>  |   |
| <b>Number of online/runtime languages</b>                          | 10  |
| <b>Languages</b>   |   |
| <b>Languages per project</b>                                       | 32  |
| <b>Languages</b>   |   |
| <b>D</b>   | Yes   |
| <b>GB</b>  | Yes   |
| <b>F</b>   | Yes   |
| <b>I</b>   | Yes   |
| <b>E</b>   | Yes   |
| <b>Chinese traditional</b>   | Yes   |
| <b>Chinese simplified</b>  | Yes   |
| <b>DK</b>  | Yes   |
| <b>FIN</b>   | Yes   |
| <b>GR</b>  | Yes   |
| <b>J</b>   | Yes   |
| <b>KP/ROK</b>  | Yes   |
| <b>NL</b>  | Yes   |
| <b>N</b>   | Yes   |
| <b>PL</b>  | Yes   |
| <b>P</b>   | Yes   |
| <b>RUS</b>   | Yes   |
| <b>S</b>   | Yes   |
| <b>CZ</b>  | Yes   |

|   |           |
|---|-----------|
| <b>TR</b>   | Yes       |
| <b>H</b>  | Yes       |
| <b>Functionality under WinCC (TIA Portal)</b>                         |           |
| <b>Libraries</b>  | Yes       |
| <b>Number of Visual Basic Scripts</b>                                 | No        |
| <b>Task planner</b>   | Yes       |
| <b>time-controlled</b>  | No        |
| <b>task-controlled</b>  | Yes       |
| <b>Help system</b>  | Yes       |
| <b>Number of characters per info text</b>                             | 500       |
| <b>Message system</b>   |           |
| <b>Number of alarm classes</b>  | 32        |
| <b>Number of bit messages</b>   | 1000      |
| <b>Number of analog messages</b>                                      | 25        |
| <b>S7 alarm number procedure</b>                                      | No        |
| <b>System messages HMI</b>  | Yes       |
| <b>System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)</b> | Yes       |
| <b>Number of characters per message</b>                               | 80        |
| <b>Number of process values per message</b>                           | 8         |
| <b>Acknowledgment groups</b>  | Yes       |
| <b>Message indicator</b>  | Yes       |
| <b>Message buffer</b>   |           |
| <b>Number of entries</b>  | 256       |
| <b>Circulating buffer</b>   | Yes       |
| <b>retentive</b>  | Yes       |
| <b>maintenance-free</b>   | Yes       |
| <b>Recipe administration</b>  |           |
| <b>Number of recipes</b>  | 50        |
| <b>Data records per recipe</b>  | 100       |
| <b>Entries per data record</b>  | 100       |
| <b>Size of internal recipe memory</b>                                 | 256 kbyte |
| <b>Recipe memory expandable</b>                                       | No        |
| <b>Variables</b>  |           |
| <b>Number of variables per device</b>                                 | 800       |
| <b>Number of variables per screen</b>                                 | 100       |
| <b>Limit values</b>   | Yes       |
| <b>Multiplexing</b>   | Yes       |
| <b>Structs</b>  | No        |

|                                      |     |
|--------------------------------------|-----|
| Arrays                               | Yes |
| <b>Images</b>                        |     |
| Number of configurable images        | 250 |
| Permanent window/default             | Yes |
| Global image                         | Yes |
| Start screen configurable            | Yes |
| Image selection by PLC               | Yes |
| Image number in the PLC              | Yes |
| <b>Image objects</b>                 |     |
| Number of objects per image          | 100 |
| Text fields                          | Yes |
| I/O fields                           | Yes |
| Graphic I/O fields (graphics list)   | Yes |
| Symbolic I/O fields (text list)      | Yes |
| Date/time fields                     | Yes |
| Switch                               | Yes |
| Buttons                              | Yes |
| Graphic view                         | Yes |
| Icons                                | Yes |
| Geometric objects                    | Yes |
| <b>Complex image objects</b>         |     |
| Number of complex objects per screen | 10  |
| Alarm view                           | Yes |
| Trend view                           | Yes |
| User view                            | Yes |
| Status/control                       | No  |
| Sm@rtClient view                     | No  |
| Recipe view                          | Yes |
| f(x) trend view                      | No  |
| System diagnostics view              | Yes |
| Media Player                         | No  |
| Bar graphs                           | Yes |
| Sliders                              | No  |
| Pointer instruments                  | No  |
| Analog/digital clock                 | No  |
| <b>Lists</b>                         |     |
| Number of text lists per project     | 150 |
| Number of entries per text list      | 100 |
| Number of graphics lists per project | 100 |

|                                     |       |
|-------------------------------------|-------|
| Number of entries per graphics list | 100   |
| <b>Archiving</b>                    |       |
| Number of archives per device       | 2     |
| Number of entries per archive       | 10000 |
| Message archive                     | Yes   |
| Process value archive               | Yes   |
| <b>Archiving methods</b>            |       |
| Sequential archive                  | Yes   |
| Short-term archive                  | Yes   |
| <b>Memory location</b>              |       |
| Memory card                         | No    |
| USB memory                          | Yes   |
| Ethernet                            | No    |
| <b>Data storage format</b>          |       |
| CSV                                 | No    |
| TXT                                 | Yes   |
| RDB                                 | No    |
| <b>Security</b>                     |       |
| Number of user groups               | 50    |
| Number of user rights               | 32    |
| Number of users                     | 50    |
| Password export/import              | Yes   |
| SIMATIC Logon                       | No    |
| <b>Character sets</b>               |       |
| <b>Keyboard fonts</b>               |       |
| US English                          | Yes   |
| <b>Character sets</b>               |       |
| Tahoma                              | Yes   |
| Arial                               | No    |
| Courier New                         | No    |
| WinCC flexible Standard             | Yes   |
| Ideographic languages               | Yes   |
| Font size freely scalable           | Yes   |
| <b>Transfer (upload/download)</b>   |       |
| MPI/PROFIBUS DP                     | No    |
| USB                                 | No    |
| Ethernet                            | Yes   |
| using external storage medium       | No    |
| <b>Process coupling</b>             |       |



|   |        |
|---|--------|
| <b>S7-1200</b>                          | Yes    |
| <b>S7-1500</b>                          | Yes    |
| <b>S7-200</b>                           | Yes    |
| <b>S7-300/400</b>                       | Yes    |
| <b>LOGO!</b>                            | Yes    |
| <b>Win AC</b>                           | Yes    |
| <b>SINUMERIK</b>                        | No     |
| <b>SIMOTION</b>                         | Yes    |
| <b>Allen Bradley (EtherNet/IP)</b>      | Yes    |
| <b>Allen Bradley (DF1)</b>              | No     |
| <b>Mitsubishi (MC TCP/IP)</b>           | Yes    |
| <b>Mitsubishi (FX)</b>                  | No     |
| <b>OMRON (FINS TCP)</b>                 | No     |
| <b>OMRON (LINK/Multilink)</b>           | No     |
| <b>Modicon (Modbus TCP/IP)</b>          | Yes    |
| <b>Modicon (Modbus)</b>                 | No     |
| <b>Service tools/configuration aids</b> |        |
| <b>Clean screen</b>                     | Yes    |
| <b>Touch calibration</b>                | Yes    |
| <b>Backup/restore</b>                   | Yes    |
| <b>Backup/Restore automatically</b>     | No     |
| <b>Simulation</b>                       | Yes    |
| <b>Device switchover</b>                | Yes    |
| <b>Delta transfer</b>                   | No     |
| <b>I/O/Options</b>                      |        |
| <b>I/O devices</b>                      |        |
| <b>Printer</b>                          | No     |
| <b>Multi Media Card</b>                 | No     |
| <b>SD card</b>                          | No     |
| <b>USB memory</b>                       | Yes    |
| <b>Mechanics/material</b>               |        |
| <b>Type of housing (front)</b>          |        |
| <b>Plastic</b>                          | Yes    |
| <b>Aluminum</b>                         | No     |
| <b>Stainless steel</b>                  | No     |
| <b>Dimensions</b>                       |        |
| <b>Width of the housing front</b>       | 214 mm |
| <b>Height of housing front</b>          | 158 mm |
| <b>Mounting cutout (W x H x D)</b>      |        |

|                                 |              |
|---------------------------------|--------------|
| <b>Mounting cutout, width</b>   | 197 mm       |
| <b>Mounting cutout, height</b>  | 141 mm       |
| <b>Device depth</b>             | 39 mm        |
| <b>Weights</b>                  |              |
| <b>Weight without packaging</b> | 780 g        |
| <b>Weight incl. packaging</b>   | 990 g        |
| Status                          | Apr 14, 2014 |