

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



Product type designation

Display

Design of display	TFT widescreen display, LED backlighting
Screen diagonal	7 in
Display width	154.1 mm
Display height	85.9 mm
Number of colors	65 536

Resolution (pixels)

• Horizontal image resolution	800 pixel
• Vertical image resolution	480 pixel

Backlighting

• MTBF backlighting (at 25 °C)	20 000 h
• Dimmable backlight	Yes

Control elements

Keyboard

• Function keys	
— 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

Touch operation

• Design as touch screen	Yes
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Installation type/mounting	
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
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
Input current	
Current consumption (rated value)	230 mA
Starting current inrush I ² t	0.2 A ² ·s
Power	
Power consumption, typ.	5.5 W
Processor	
Processor type	ARM
Memory	
Flash	Yes
RAM	Yes
Usable memory for user data	10 Mbyte
Type of output	
Acoustics	
• Buzzer	Yes
• Speaker	No
Time of day	
Clock	
• Hardware clock (real-time clock)	Yes
• Software clock	Yes
• Battery-backed	Yes
• Synchronizable	Yes
Interfaces	
Number of RS 485 interfaces	1
Number of USB interfaces	1
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0; with optional adapter
Number of RS 422 interfaces	1; together with RS485
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	0

With software interfaces	No
Industrial Ethernet	
• Number of industrial Ethernet interfaces	0
• Industrial Ethernet status LED	0
Protocols	
PROFINET	No
PROFINET IO	No
IRT	No
MRP	No
PROFIBUS	Yes
MPI	Yes
Protocols (Ethernet)	
• TCP/IP	No
• DHCP	No
• SNMP	No
• DCP	No
• LLDP	No
WEB characteristics	
• HTTP	No
• HTML	No
Further protocols	
• CAN	No
• MODBUS	Yes; Modicon (MODBUS RTU)
• Supports protocol for EtherNet/IP	No
Interrupts/diagnostics/status information	
Diagnostic messages	
• Diagnostic information readable	No
EMC	
Emission of radio interference acc. to EN 55 011	
• Limit class A, for use in industrial areas	Yes
• Limit class B, for use in residential areas	No
Degree and class of protection	
IP (at the front)	65
Enclosure Type 4 at the front	Yes
Enclosure type 4x at the front	Yes
IP (rear)	20
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes

KC approval	Yes
Use in hazardous areas	
• ATEX Zone 2	No
• ATEX Zone 22	No
• IECEx Zone 2	No
• IECEx 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	
Ambient temperature in operation	
• Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	50 °C
• Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	40 °C
• Operation (vertical installation, portrait format)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	40 °C
• Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, min.	35 °C
Ambient temperature during storage/transportation	
• Min.	-20 °C
• max.	60 °C
Relative humidity	
• Operation, max.	90 %
Operating systems	
Pre-installed operating system	
• Windows CE	No
proprietary	Yes
Configuration	
Message indicator	Yes
Alarm logging system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe administration	Yes
Configuration software	
• STEP 7 Basic (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)

• STEP 7 Professional (TIA Portal)	Yes; via integrated WinCC Basic (TIA Portal)
• WinCC flexible Compact	No
• WinCC flexible Standard	No
• WinCC flexible Advanced	No
• WinCC Basic (TIA Portal)	Yes
• WinCC Comfort (TIA Portal)	Yes
• WinCC Advanced (TIA Portal)	Yes
• WinCC Professional (TIA Portal)	Yes

Languages

Online languages	
• Number of online/runtime languages	10
Languages	
• Languages per project	32
• Languages	
— D	Yes
— GB	Yes
— F	Yes
— I	Yes
— E	Yes
— Chinese traditional	Yes
— Chinese simplified	Yes
— DK	Yes
— FIN	Yes
— GR	Yes
— J	Yes
— KP / ROK	Yes
— NL	Yes
— N	Yes
— PL	Yes
— P	Yes
— RUS	Yes
— S	Yes
— CZ	Yes
— TR	Yes
— H	Yes

Functionality under WinCC (TIA Portal)

Libraries	Yes
Number of Visual Basic Scripts	No
Task planner	Yes
• time-controlled	No
• task-controlled	Yes

Help system	Yes
<ul style="list-style-type: none"> • Number of characters per info text 	500
Message system	
<ul style="list-style-type: none"> • Number of alarm classes 	32
<ul style="list-style-type: none"> • S7 alarm number procedure 	No
<ul style="list-style-type: none"> • System messages HMI 	Yes
<ul style="list-style-type: none"> • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) 	Yes; System message buffer of the SIMATIC S7-1200 and S7-1500
<ul style="list-style-type: none"> • Number of characters per message 	80
<ul style="list-style-type: none"> • Number of process values per message 	8
<ul style="list-style-type: none"> • Acknowledgment groups 	Yes
<ul style="list-style-type: none"> • Message indicator 	Yes
<ul style="list-style-type: none"> • Message buffer <ul style="list-style-type: none"> — Number of entries — Circulating buffer — retentive — maintenance-free 	256 Yes Yes Yes
Recipe administration	
<ul style="list-style-type: none"> • Number of recipes 	50
<ul style="list-style-type: none"> • Data records per recipe 	100
<ul style="list-style-type: none"> • Entries per data record 	100
<ul style="list-style-type: none"> • Size of internal recipe memory 	256 kbyte
<ul style="list-style-type: none"> • Recipe memory expandable 	No
Variables	
<ul style="list-style-type: none"> • Number of variables per device 	800
<ul style="list-style-type: none"> • Number of variables per screen 	100
<ul style="list-style-type: none"> • Limit values 	Yes
<ul style="list-style-type: none"> • Multiplexing 	Yes
<ul style="list-style-type: none"> • Structs 	No
<ul style="list-style-type: none"> • Arrays 	Yes
Images	
<ul style="list-style-type: none"> • Number of configurable images 	100
<ul style="list-style-type: none"> • Permanent window/default 	Yes
<ul style="list-style-type: none"> • Global image 	Yes
<ul style="list-style-type: none"> • Start screen configurable 	Yes
<ul style="list-style-type: none"> • Image selection by PLC 	Yes
<ul style="list-style-type: none"> • Image number in the PLC 	Yes
Image objects	
<ul style="list-style-type: none"> • Number of objects per image 	100
<ul style="list-style-type: none"> • Text fields 	Yes
<ul style="list-style-type: none"> • I/O fields 	Yes
<ul style="list-style-type: none"> • Graphic I/O fields (graphics list) 	Yes

• Symbolic I/O fields (text list)	Yes
• Date/time fields	Yes
• Switches	Yes
• Buttons	Yes
• Graphic view	Yes
• Icons	Yes
• Geometric objects	Yes
Complex image objects	
• 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; System message buffer of the SIMATIC S7-1200 and S7-1500
• Media Player	No
• Bar graphs	Yes
• Sliders	No
• Pointer instruments	No
• Analog/digital clock	No
Lists	
• Number of text lists per project	300
• Number of entries per text list	100
• Number of graphics lists per project	100
• Number of entries per graphics list	100
Archiving	
• Number of archives per device	2
• Number of entries per archive	10 000
• Message archive	Yes
• Process value archive	Yes
• Archiving methods	
— Sequential archive	Yes
— Short-term archive	Yes
• Memory location	
— Memory card	No
— USB memory	Yes
— Ethernet	No
• Data storage format	

— CSV	No
— TXT	Yes
— RDB	No
Security	
• Number of user groups	50
• Number of user rights	32
• Number of users	50
• Password export/import	Yes
• SIMATIC Logon	No
Character sets	
• Keyboard	
— US American (English)	Yes
• Character sets	
— Tahoma	Yes
— Arial	No
— Courier New	No
— WinCC flexible Standard	Yes
— Ideographic languages	Yes
• Font size freely scalable	Yes
• Additional character sets can be loaded	Yes
Transfer (upload/download)	
• MPI/PROFIBUS DP	Yes
• USB	No
• Ethernet	No
• using external storage medium	No
Process coupling	
• S7-1200	Yes
• S7-1500	Yes
• S7-200	Yes
• S7-300/400	Yes
• LOGO!	Yes
• Win AC	Yes
• SIMOTION	Yes
• Allen Bradley (EtherNet/IP)	No
• Allen Bradley (DF1)	Yes
• Mitsubishi (MC TCP/IP)	No
• Mitsubishi (FX)	Yes
• OMRON (FINS TCP)	No
• OMRON (LINK/Multilink)	Yes
• Modicon (Modbus TCP/IP)	No
• Modicon (Modbus)	Yes

Service tools/configuration aids

• Clean screen	Yes
• Touch calibration	Yes
• Backup/restore	Yes
• Backup/Restore automatically	No
• Simulation	Yes
• Device switchover	Yes
• Delta transfer	No

I/O / Options

I/O devices

• Printer	No
• MultiMediaCard	No
• SD card	No
• USB memory	Yes

Mechanics/material

Type of housing (front)

• plastic	Yes
• aluminum	No
• Stainless steel	No

Dimensions

Width of the housing front	214 mm
Height of housing front	158 mm
Mounting cutout, width	197 mm
Mounting cutout, height	141 mm
Device depth	39 mm

Weights

Without packaging	800 g
With packaging	1 kg

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