

6AV2124-0JC01-0AX0 SIMATIC HMI TP900 COMFORT

Technical / CAx data

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SIMATIC HMI TP900 COMFORT, COMFORT PANEL, TOUCH OPERATION, 9" WIDESCREEN-TFT-DISPLAY, 16 MIO COLORS, PROFINET INTERFACE, MPI/PROFIBUS DP INTERFACE, 12 MB USER MEMORY, WINDOWS CE 6.0, CONFIGURABLE FROM WINCC COMFORT V11



Product type designation TP900 Comfort

Display

Design of display TFT
 Screen diagonal 9 in
 Display width 195 mm
 Display height 117 mm
 Number of colors 16777216

Resolution (pixels)

Horizontal image resolution 800
 Vertical image resolution 480

Backlighting

MTBF backlighting (at 25 °C) 50000 h; At 50 °C
 Dimmable backlight Yes; 0-100 %

Control elements

Keyboard fonts

Number of function keys 0
 Keys with LED No
 System keys No
 Numeric/alphabetical input Yes / Yes
 Numeric keyboard Yes
 Alphanumeric keyboard Yes

Touch operation

Design as touch screen Yes

Supply voltage

Type of supply voltage DC
 Rated voltage/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)	0.75 A
I ² t-level / maximum	0.5 A ² ·s
Power	
Power consumption, typ.	18 W
Processor	
Processor type	
X86	Yes
ARM	No
Memory	
Flash	Yes
RAM	Yes
Usable memory for user data	12 Mbyte
Type of output	
Info LED	No
Power LED	No
Error LED	No
Acoustics	Speaker
Buzzer	No
Speaker	Yes
Time of day	
Clock	
Hardware clock (real-time clock)	Yes
Software clock	No
Battery-backed	Yes
Synchronizable	Yes
Interfaces	
Number of RS 485 interfaces	1
Number of USB interfaces	3; USB 2.0
Number of SD card slots	2
Number of parallel interfaces	0
Number of 20 mA interfaces (TTY)	0
Number of RS 232 interfaces	0
Number of RS 422 interfaces	0
With software interfaces	No
Industrial Ethernet	
Number of Industrial Ethernet interfaces	2
Industrial Ethernet status LED	2
IRT, supported	Yes
MRP supported	No
Number of ports of the integrated switch	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	Yes
Protocols (Ethernet)	
TCP/IP	Yes
DHCP	Yes
SNMP	Yes
DCP	Yes
LLDP	Yes
WEB characteristics	
HTTP	Yes

HTTPS	No
HTML	Yes
XML	No
CSS	Yes
Active X	No
Java Script	Yes
Java VM	No
Further protocols	
PROFIBUS	Yes
MPI	Yes
CAN	No
MODBUS	Yes
Supports protocol for EtherNet/IP	Yes
Interrupts/diagnostics/status information	
Diagnoses	
Diagnostic information readable	Yes; S7 controller
EMC	
Emission of radio interference acc. to EN 55 011	
Emission of radio interferences acc. to EN 55 011 (limit class A)	Yes
Emission of radio interference acc. to EN 55 011 (limit class B)	No
Ambient conditions	
Mounting position	vertical
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 %
Degree and class of protection	
Type of protection	IP20
IP (at the front)	IP65
Enclosure Type 4 at the front	Yes
Enclosure type 4x at the front	Yes
Standards, approvals, certificates	
CE	Yes
KC approval	Yes
cULus	Yes
C-TICK	Yes

FM Class I Div. 2	Yes
GL	Yes; Available soon
ABS	Yes; Available soon
BV	Yes; Available soon
DNV	Yes; Available soon
LRS	Yes; Available soon
Class NK	Yes; Available soon
PRS	No
Use in hazardous areas	
EX zone 2	Yes; Available soon
EX zone 22	Yes; Available soon
Class I Zone 1	No
Class I Zone 2, Division 2	Yes; Available soon
Operating systems	
Windows CE	Yes
proprietary	No
other	No
Configuration	
Message indicator	Yes
With 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)	No
STEP 7 Professional (TIA Portal)	No
WinCC flexible Compact	No
WinCC flexible Standard	No
WinCC flexible Advanced	No
WinCC Basic (TIA Portal)	No
WinCC Comfort (TIA Portal)	Yes; from V11
WinCC Advanced (TIA Portal)	Yes; from V11
WinCC Professional (TIA Portal)	Yes; from V11
Languages	
Online languages	
Number of online/runtime languages	32
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 / SK	Yes
TR	Yes
H	Yes
Functionality under WinCC flexible	
Libraries	Yes
Applications/options	
Internet Explorer	Yes
Pocket Word	Yes
Pocket Excel	Yes
PDF Viewer	Yes
Media Player	Yes
Sm@rtService	Yes
Number of Visual Basic Scripts	
Number	100
Task planner	
time-controlled	Yes
task-controlled	Yes
Help system	
Number of info. texts	70
Number of tooltips	0
Status/control	Yes
With alarm logging system (incl. buffer and acknowledgment)	
Number of alarm classes	32
Number of messages	4000
Bit messages	Yes
Analog messages	Yes
Telegram message procedure Alarm S	Yes
System messages HMI	Yes
System messages PLC	Yes
System messages, other (Sinumerik, Simotion,..)	Yes
Message length (in characters)	
Lines	1
Characters	80
Number of process values per message	8
Message indicator	Yes
Acoustic feedback	No
First/last value	Yes
Message buffer	
Number of entries	1024
Circulating buffer	Yes
retentive	Yes
maintenance-free	Yes
Recipes	
Recipes	300
Data records per recipe	500
Entries per data record	1000
integrated Flash	1 Mbyte
expandable	Yes

Number of process images

Process images	500
Variables	2048
Number of internal variables	1000
Limit values	Yes
Multiplexing	Yes
Structs	Yes

Image elements

Number	40000
Fields per image	400
Variables per image	400
Permanent window/default	Yes
Global image	Yes
Start screen configurable	Yes
Image selection via PLC	Yes
Image number in the PLC	Yes
Return	J
	Yes
	Yes
Vector graphics	Yes
dynamic objects	Diagrams, bar graphs, sliders, analog display, invisible buttons
Number of plot diagrams per project	300
Number per image	20
Number of curves per diagram	8
Online operation of trends	
Compress	Yes
Slides	Yes
trigger	
Bit	Yes
Time	Yes
Trend	Yes
Profile	Yes
Limit value lines	Yes
Number of bars per project	2000
Number of bars per chart	20
Direction	
vertical	Yes
horizontal	Yes
Limit value lines	Yes
alphanumeric fields	3000
alphanumeric fields per image	400
numerical fields	2048
numerical fields per image	400
Date and time field	400
Password errors	400
Number of slides per project	300
Number of slides per image	20
Number of analog indicators per project	300
Number of analog indicators per image	20
Number of visible switches per project	400
visible switches per image	20
Number of hidden switches per project	400
hidden switches per image	20

Number of status switches per project	400
Button status switches per image	20
Number of selector switches per project	400
Selector switches per image	20
Number of decade switches per project	400
Decade switches per image	20
Number of signal lamps per project	400
Signal lamps per image	20
Attributes for dynamic objects	
Color change	Yes
X/Y movement	Yes
Hide	Yes
Angle of turn	No
Lists	
Text lists	500
Number of text lists per image	400
Number of entries in text lists	500
Graphics list	500
Number of graphic lists per image	400
Number of entries in graphics lists	500
Archiving	
Number of archives per project	50
Number of measuring points per project	2048
Number of entries per archive	20000
Archiving types	
Sequential archive	Yes
Short-term archive	Yes
Message archive	Yes
Process value archive	Yes
Memory location	
SD card	Yes
Multi Media Card	Yes
RAM	Yes
Ethernet	Yes
Data storage format	
CSV	Yes
TXT	Yes
RDB	Yes
Online evaluation	
Using trend curves	Yes
Security	
Number of user groups	50
Number of user rights	32
Number of users	50
Passwords exportable	Yes
SIMATIC LOGON	Yes
Data carrier support	
Multi Media Card	Yes
SD card	Yes
USB Memory Drive	Yes
Logging	
Number of connectable printers	1
Alarms	Yes
Report (shift log)	Yes

Color print	Yes
Hardcopy	Yes
Printer driver	
ESC/P2	Yes
PCL3/PCL6	Yes
Other printer drivers	Yes
Character sets	
Keyboard fonts	
US English	Yes
Character sets	
Tahoma	Yes
Arial	Yes
Courier New	Yes
WinCC flexible Standard	Yes
Ideographic languages	Yes
all freely scalable	Yes
Number of additionally loadable character sets	4
Transfer (upload/download)	
MPI/PROFIBUS DP	Yes
USB	Yes
Ethernet	Yes
using external storage medium	No
Automatic transfer recognition	Yes
Process coupling	
S7-1200	
MPI	Yes
PROFIBUS DP	Yes
PROFINET	Yes
S7-200	
PPI (point-to-point)	Yes
PPI network	Yes
MPI	Yes
PROFIBUS DP	Yes
Ethernet	Yes
S7-300/400	
MPI	Yes
PROFIBUS DP	Yes
PROFINET	Yes
WinAC MP	Yes
Win AC	
TCP/IP	Yes
SINUMERIK	No
SIMOTION	No
Allen Bradley (EtherNet/IP)	Yes
Allen Bradley (DF1)	Yes
Mitsubishi (MC TCP/IP)	Yes
Mitsubishi (FX)	Yes
OMRON (LINK/Multilink)	Yes
OMRON (LINK/Multilink)	Yes
Modicon (Modbus TCP/IP)	Yes
Modicon (Modbus)	Yes
other non-Siemens drivers	Yes
Service tools/configuration aids	
Clean screen	Yes

Touch calibration	Yes
Backup/restore	Yes
Backup/Restore automatically	Yes
Simulation	Yes
Device switchover	Yes
Delta transfer	Yes
Monitoring function for battery and memory	Yes; For memory
Trace (operation archive)	Yes
I/O / Options	
I/O devices	
Printer	Yes
Mounting	
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
Mechanics/material	
Type of housing (front)	
Plastic	No
Aluminum	Yes
Stainless steel	No
Dimensions	
Width of the housing front	274 mm
Height of housing front	190 mm
Depth/installation dimension	63 mm
Mounting cutout, width	251 mm
Mounting cutout, height	166 mm
Weight	
Weight without packaging	1.9 kg
Weight incl. packaging	2.6 kg
Status	Oct 21, 2011