

SIMATIC HMI MTP1900 PRO, for support arm (expandable, round pipe) and Extension Unit, 18.5" widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V18, contains open-source software, which is provided free of charge

General information	
Product type designation	MTP1900 Unified Comfort PRO
Display	
Design of display	TFT
Screen diagonal	18.5 in
Display width	409 mm
Display height	230 mm
Number of colors	16 777 216
Resolution (pixels)	
• Horizontal image resolution	1 920 pixel
• Vertical image resolution	1 080 pixel
Backlighting	
• MTBF backlighting (at 25 °C)	50 000 h
• Backlight dimmable	Yes; 10 ... 100%
Control elements	
Keyboard fonts	
• Numeric keyboard	Yes; Onscreen keyboard
• alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
• Design as touch screen	Yes
• Design as multi-touch screen	Yes
Installation type/mounting	
Mounting position	vertical
Mounting in portrait format possible	No
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	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)	1.2 A
Current consumption, max.	1.7 A
Starting current inrush I ² t	0.5 A ² ·s
Memory	
Flash	Yes
RAM	Yes
Type of output	
Acoustics	
• Buzzer	Yes
• Speaker	No
Time of day	
Clock	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes

Interfaces	
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422 / 485 combined
Number of RS 422 interfaces	0; together with RS 485
Number of USB interfaces	4; USB 3.1 Gen. 1 (type A)
Number of SD card slots	2
Industrial Ethernet	
<ul style="list-style-type: none"> Industrial Ethernet status LED 	2
<ul style="list-style-type: none"> Number of ports of the integrated switch 	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	No
Protocols (Ethernet)	
<ul style="list-style-type: none"> TCP/IP 	Yes
<ul style="list-style-type: none"> DHCP 	Yes
<ul style="list-style-type: none"> SNMP 	Yes
<ul style="list-style-type: none"> DCP 	Yes
<ul style="list-style-type: none"> LLDP 	Yes
Redundancy mode	
Media redundancy	
— MRP	Yes
EMC	
Emission of radio interference acc. to EN 55 011	
<ul style="list-style-type: none"> Limit class A, for use in industrial areas 	Yes
<ul style="list-style-type: none"> Limit class B, for use in residential areas 	No
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP65
NEMA (front)	
<ul style="list-style-type: none"> Enclosure Type 4x at the front 	Yes
<ul style="list-style-type: none"> Enclosure Type 12 at the front 	Yes
Standards, approvals, certificates	
CE mark	Yes
UKCA mark	Yes
cULus	Yes
FM approval	No; Available soon
RCM (formerly C-TICK)	Yes
KC approval	No; Available soon
EAC (formerly Gost-R)	No; Available soon
CCC	No; Available soon
Use in hazardous areas	
<ul style="list-style-type: none"> ATEX Zone 2 	No; Available soon
<ul style="list-style-type: none"> ATEX Zone 22 	No; Available soon
<ul style="list-style-type: none"> IECEx Zone 2 	No; Available soon
<ul style="list-style-type: none"> IECEx Zone 22 	No; Available soon
<ul style="list-style-type: none"> cULus Class I Zone 2, Division 2 	No; Available soon
<ul style="list-style-type: none"> cULus Class II Division 2 	No
<ul style="list-style-type: none"> FM Class I Division 2 	No; Available soon
<ul style="list-style-type: none"> FM Class II Division 2 	No
Marine approval	
<ul style="list-style-type: none"> Germanischer Lloyd (GL) 	No
<ul style="list-style-type: none"> American Bureau of Shipping (ABS) 	No
<ul style="list-style-type: none"> Bureau Veritas (BV) 	No
<ul style="list-style-type: none"> Det Norske Veritas (DNV) 	No
<ul style="list-style-type: none"> Korean Register of Shipping (KRS) 	No
<ul style="list-style-type: none"> Lloyds Register of Shipping (LRS) 	No
<ul style="list-style-type: none"> Nippon Kaiji Kyokai (Class NK) 	No
<ul style="list-style-type: none"> Polski Rejestr Statkow (PRS) 	No
<ul style="list-style-type: none"> Chinese Classification Society (CCS) 	No
Ambient conditions	

Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	45 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	40 °C
Ambient temperature during storage/transportation	
• min.	-20 °C
• max.	60 °C
Relative humidity	
• Operation, max.	90 %; no condensation
Operating systems	
proprietary	Yes
configuration / header	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
Configuration software	
• WinCC Unified Comfort Engineering (TIA Portal)	Yes; V18 or higher
• WinCC Unified PC Engineering (TIA Portal)	Yes; V18 or higher
Languages	
Online languages	
• Number of online/runtime languages	32
Project languages	
• Languages per project	32
Functionality under WinCC Unified	
Libraries	Yes
Applications/options	
• Writer	Yes
• Calc	Yes
• Web browser	Yes
• PDF Viewer	Yes
• Media Player	Yes
• SIMATIC WinCC Sm@rtServer	Yes
• SIMATIC WinCC Audit	No
• Unified Collaboration	Yes
Number of Visual Basic Scripts	No
JavaScript	Yes
Task planner	
• time-controlled	Yes
• task-controlled	Yes
Help system	
• Number of characters per info text	70
• Number of message texts per message	10
functionality under WinCC Unified / alarm system / header	
• Number of alarm classes	32
• Bit messages	
— Number of bit messages	9 000
• Analog messages	
— Number of analog messages	300
• S7 alarm number procedure	Yes
• System messages HMI	Yes
• System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.)	Yes
• Number of characters per message	512
• Number of process values per message	10
• Acknowledgment groups	Yes
• Message indicator	Yes

• Message buffer	Yes; Configured as alarm archive
— Circulating buffer	Yes
— retentive	Yes
— maintenance-free	Yes
Parameter set management (recipes)	
• Number of parameter set types	750
• Parameter sets per parameter set type	2 000
• Entries per parameter set	1 000
• Size of internal parameter set memory	12 Mbyte
• Parameter set memory expandable	Yes
functionality under WinCC Unified / variables / header	
• Number of variables per device	8 000
• Number of variables per screen	800
• Limit values	Yes
• Structures	Yes
• Arrays	Yes
functionality under WinCC Unified / screens / header	
• Number of configurable images	1 200
• Faceplate	Yes
Image objects	
• Number of objects per image	1 200
• Picture window	Yes
• Text fields	Yes
• I/O fields	Yes
• Graphic I/O fields (graphics list)	Yes
• Symbolic I/O fields (text list)	Yes
• Scalable Vector Graphics (SVG)	Yes
• Date/time fields	Yes
• Checkbox	Yes
• Option button	Yes
• Switches	Yes
• Buttons	Yes
• Graphic display	Yes
• Icons	Yes
• Custom web display	Yes
• Geometric objects	Yes
functionality under WinCC Unified / complex screen objects / header	
• Number of complex objects per screen	80
• Alarm view	Yes
• Trend view	Yes
• User view	Yes
• Status/control	Yes
• Parameter set display	Yes
• HTML browser	Yes
• Bar graphs	Yes
• Sliders	Yes
• Pointer instruments	Yes
• Analog/digital clock	Yes
functionality under WinCC Unified / lists / header	
• Number of text lists per project	750
• Number of entries per text list	750
• Number of graphics lists per project	750
• Number of entries per graphics list	750
functionality under WinCC Unified / archiving / header	
• Number of archives per device	50
• Number of entries per archive	500 000
• Message archive	Yes
• Process value archive	Yes
• type of archiving / for WinCC Unified	
— Sequential archive	Yes
— Short-term archive	Yes

<ul style="list-style-type: none"> • storage location / of archiving / for WinCC Unified <ul style="list-style-type: none"> — Memory card — USB memory — Ethernet 	<p>Yes</p> <p>Yes</p> <p>Yes</p>
Security	
<ul style="list-style-type: none"> • Number of roles • Number of function rights • Number of users • Password export/import • Central user administration 	<p>50</p> <p>20; number of predefined function rights</p> <p>200</p> <p>Yes</p> <p>No</p>
functionality under WinCC Unified / transfer (upload/download) / header	
<ul style="list-style-type: none"> • USB • Ethernet • using external storage medium 	<p>No</p> <p>Yes</p> <p>Yes</p>
Process coupling	
<ul style="list-style-type: none"> • S7-1200 • S7-1500 • S7-200 • S7-300/400 • Number of S7 connections • LOGO! • SIMOTION • OPC UA Client • OPC UA Server • Software Controller/Open Controller 	<p>Yes</p> <p>Yes</p> <p>No</p> <p>Yes</p> <p>16</p> <p>No</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
functionality under WinCC Unified / service tools/configuration tools / header	
<ul style="list-style-type: none"> • Backup/Restore manually • Backup/Restore automatically • Simulation • Device switchover 	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>
Peripherals/Options	
Peripherals	Printer, barcode reader
Printer	Yes
SIMATIC HMI MM memory card: Multi Media Card	No
SIMATIC HMI SD memory card: Secure Digital memory card	Yes
SIMATIC HMI CF memory card Compact Flash Card	No
USB memory	Yes
SIMATIC IPC USB Flashdrive (USB stick)	Yes
SIMATIC HMI USB stick	Yes
Network camera	Yes
Mechanics/material	
Enclosure material (front) <ul style="list-style-type: none"> • Plastic • Aluminum • Stainless steel 	<p>No</p> <p>Yes</p> <p>No</p>
Dimensions	
Width of the housing front	462 mm
Height of housing front	292 mm; Without basic adapter
Overall depth	163 mm; Without basic adapter
Weights	
Weight (without packaging)	7 kg
last modified:	8/18/2023 