

SIMATIC HMI MTP1900, Unified Comfort Panel, touch operation, 18.5" widescreen TFT display, 16 million colors, PROFINET interface, configurable as of WinCC Unified Comfort V16, contains open-source software, which is provided free of charge see enclosed DVD



General information	
Product type designation	MTP1900 Unified Comfort
Display	
Design of display	TFT
Screen diagonal	18.5 in
Display width	408.96 mm
Display height	230.04 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; At 25°C
• 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	Yes
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 <sup>2</sup> t	0.5 A <sup>2</sup> ·s
Memory	
Flash	Yes
RAM	Yes
Type of output	

<b>Acoustics</b>	
• Buzzer	Yes
• Speaker	No
<b>Time of day</b>	
<b>Clock</b>	
• Hardware clock (real-time)	Yes
• Software clock	Yes
• retentive	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes
<b>Interfaces</b>	
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
<b>Industrial Ethernet</b>	
• Industrial Ethernet status LED	2
• Number of ports of the integrated switch	2
<b>Protocols</b>	
PROFINET	Yes
Supports protocol for PROFINET IO	No
<b>Protocols (Ethernet)</b>	
• TCP/IP	Yes
• DHCP	Yes
• SNMP	Yes
• DCP	Yes
• LLDP	Yes
<b>Redundancy mode</b>	
<b>Media redundancy</b>	
— MRP	Yes
<b>EMC</b>	
<b>Emission of radio interference acc. to EN 55 011</b>	
• Limit class A, for use in industrial areas	Yes
• Limit class B, for use in residential areas	No
<b>Degree and class of protection</b>	
IP (at the front)	IP65
IP (rear)	IP20
<b>NEMA (front)</b>	
• Enclosure Type 4x at the front	Yes
• Enclosure Type 12 at the front	Yes
<b>Standards, approvals, certificates</b>	
CE mark	Yes
UKCA mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
EAC (formerly Gost-R)	Yes
CCC	Yes
<b>Ecological footprint</b>	
• environmental product declaration	Yes
<b>Global warming potential</b>	
— global warming potential, (total) [CO2 eq]	308 kg
— global warming potential, (during production) [CO2 eq]	87.4 kg
— global warming potential, (during operation) [CO2 eq]	236 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-15.4 kg
<b>Use in hazardous areas</b>	
• ATEX Zone 2	Yes
• ATEX Zone 22	Yes

• IECEx Zone 2	Yes
• IECEx Zone 22	Yes
• cULus Class I Zone 2, Division 2	Yes
• cULus Class II Division 2	Yes
• FM Class I Division 2	Yes
• FM Class II Division 2	Yes
<b>Marine approval</b>	
• Germanischer Lloyd (GL)	No; included in DNV
• American Bureau of Shipping (ABS)	Yes
• Bureau Veritas (BV)	Yes
• Det Norske Veritas (DNV)	Yes
• Korean Register of Shipping (KRS)	Yes
• Lloyds Register of Shipping (LRS)	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes
• Chinese Classification Society (CCS)	Yes
<b>Ambient conditions</b>	
Suited for indoor use	Yes
Suited for outdoor use	No
<b>Ambient temperature during operation</b>	
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
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, max.	35 °C
<b>Ambient temperature during storage/transportation</b>	
• min.	-20 °C
• max.	60 °C
<b>Relative humidity</b>	
• Operation, max.	90 %; no condensation
<b>Operating systems</b>	
proprietary	Yes
<b>configuration / header</b>	
Message indicator	Yes
Alarm system (incl. buffer and acknowledgment)	Yes
Process value display (output)	Yes
Process value default (input) possible	Yes
Recipe management	Yes
<b>Configuration software</b>	
• WinCC Unified Comfort Engineering (TIA Portal)	Yes
• WinCC Unified PC Engineering (TIA Portal)	Yes
<b>Languages</b>	
<b>Online languages</b>	
• Number of online/runtime languages	32
<b>Project languages</b>	
• Languages per project	32
<b>Functionality under WinCC Unified</b>	
Libraries	Yes
<b>Applications/options</b>	
• Writer	Yes
• Web browser	Yes
• Media Player	Yes
• SIMATIC WinCC Sm@rtServer	Yes
• SIMATIC WinCC Audit	Yes

• Unified Collaboration	Yes
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
<b>functionality under WinCC Unified / alarm system / header</b>	
• 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 event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... )	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
<b>Parameter set management (recipes)</b>	
• 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
<b>functionality under WinCC Unified / variables / header</b>	
• Number of variables per device	8 000
• Number of variables per screen	800
• Limit values	Yes
• Structures	Yes
• Arrays	Yes
<b>functionality under WinCC Unified / screens / header</b>	
• Number of configurable images	1 200
• Faceplate	Yes
<b>Image objects</b>	
• 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
<b>functionality under WinCC Unified / complex screen objects / header</b>	
• Number of complex objects per screen	80
• Alarm view	Yes

- Trend view Yes
- User view Yes
- Status/control No
- 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
- storage location / of archiving / for WinCC Unified
  - Memory card Yes
  - USB memory Yes
  - Ethernet No

#### Security

- Number of roles 50
- Number of function rights 20; number of predefined function rights
- Number of users 200
- Password export/import Yes
- Central user administration Yes; as of WinCC V17

#### functionality under WinCC Unified / transfer (upload/download) / header

- USB No
- Ethernet Yes
- using external storage medium Yes; as of WinCC Unified V17

#### Process coupling

- S7-1200 Yes
- S7-1500 Yes
- S7-200 No
- S7-300/400 Yes
- Number of S7 connections 16
- LOGO! Yes
- SIMOTION No
- OPC UA Client Yes
- OPC UA Server Yes
- Software Controller/Open Controller Yes

#### functionality under WinCC Unified / service tools/configuration tools / header

- Backup/Restore manually Yes
- Backup/Restore automatically Yes
- Simulation Yes
- Device switchover Yes

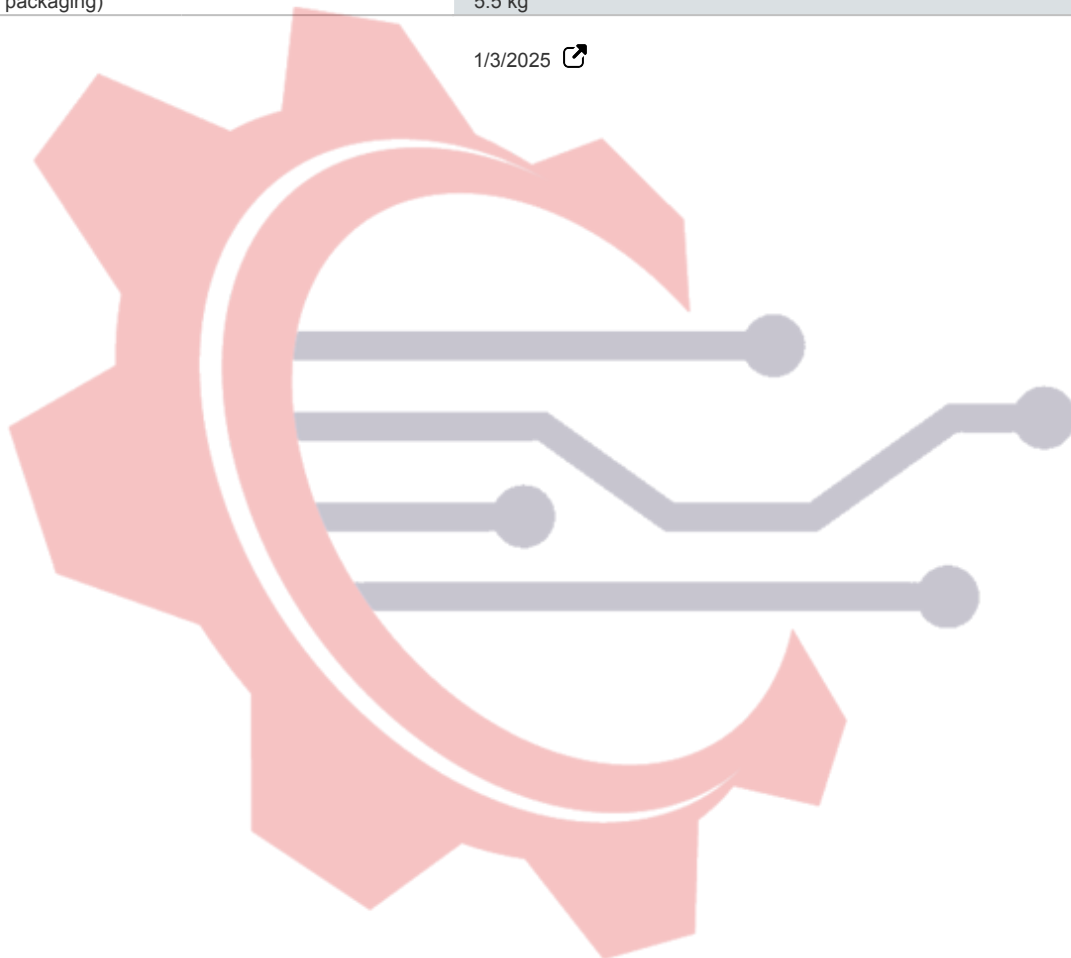
#### Peripherals/Options

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	No
<b>Mechanics/material</b>	
Enclosure material (front)	
• Aluminum	Yes
<b>Dimensions</b>	
Width of the housing front	464 mm
Height of housing front	294 mm
Mounting cutout, width	448 mm
Mounting cutout, height	278 mm
Overall depth	73 mm
<b>Weights</b>	
Weight (without packaging)	5.5 kg

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