

#### Overview



#### **SIMATIC HMI Unified Comfort Panels**

The new generation of high-end, 7–22-inch HMI devices, part of the new SIMATIC WinCC Unified System, boasts numerous improvements over the predecessor devices in terms of performance, openness and user-friendliness.

Thanks to their capacitive glass front with multi-touch technology, the Unified Comfort Panels are as convenient to use as a smartphone or tablet. The sharp colors and high contrast improve the readability and ease of use.

Visualization on the devices is based on SIMATIC WinCC Unified, the new visualization system in the TIA Portal. This opens up many new opportunities and functionalities for the user – across all device sizes.

Brand new to the SIMATIC HMI product portfolio is the option to expand device functionality with apps. Previously, HMI Panels were used exclusively for visualization software. Thanks to the integration of Siemens Industrial Edge, users can now run other programs simultaneously alongside this standard device functionality. Project-specific requirements can thus be implemented quickly and easily.

The following SIMATIC HMI Unified Comfort Panels are available:

- Standard design:
  - MTP700 Comfort
  - MTP1000 Comfort
  - MTP1200 Comfort
  - MTP1500 Comfort
  - MTP1900 Comfort
  - MTP2200 Comfort
- Neutral design:
  - MTP700 Comfort
  - MTP1000 Comfort
  - MTP1200 Comfort
  - MTP1500 Comfort
  - MTP1900 Comfort
  - MTP2200 Comfort

Starter Kits are available for standard design devices.

These consist of:

- HMI Unified Comfort Panel
- WinCC Unified V16 Comfort
- EDGE Runtime for Unified Comfort (Device-managed) license
- 1.5 m PROFINET cable
- Memory card (32 GB)
- Protective film

More information is available at <https://www.siemens.com/unified-comfort-panels>

#### **SIMATIC WinCC Unified options**

- WinCC Unified Audit Basis
- WinCC Unified Clients (Operate Client and Monitor Client)
- WinCC Unified Database Storage
- WinCC Unified Logging
- WinCC Unified Parameter Control
- WinCC Unified Report Execution
- WinCC Unified Collaboration

## Operator panels

Advanced HMI Panel-based  
Unified Comfort Panels

### SIMATIC HMI Unified Comfort Panels Standard

#### Overview



SIMATIC HMI MTP2200 Unified Comfort Panel Standard design front view

#### **SIMATIC HMI Unified Comfort Panels - standard devices**

SIMATIC HMI Unified Comfort Panels consist of six different devices with varying display sizes. All devices come with the same number of hardware interfaces and the same functionality – just select the perfect device for your needs based on the screen size.

Each Unified Comfort Panel is available in the standard design with Siemens and SIMATIC HMI branding and a silver-colored aluminum frame.

All Unified Comfort Panels come with integrated Edge functionality.

SIMATIC WinCC Unified contains visualization, communication, alarms/warnings, report creation, administration of parameter sets, archiving of user administration.

Furthermore, a WinCC Unified Client Operate (V17 or higher) for remote operator control and monitoring, and a WinCC Unified Client Monitor (V18 or higher) for monitoring only are also included. Additional clients can be enabled with a license. Up to three client licenses can be used.

Client access is based on native web technologies such as HTML5, SVG and JavaScript. The visualization can be accessed via any modern web browser – without the need for additional installation.

Siemens Industrial Edge can be used in two different ways:

- Device-managed Edge
- Centrally-managed Edge (planned)

SIMATIC HMI Unified Comfort Panels can also be ordered with a neutral design.

#### Note:

The technical specifications of the neutral design devices correspond to the technical specifications of the devices with standard design.

#### Ordering data

#### Article No.

##### Touch devices for SIMATIC HMI Unified Comfort Panels

##### Standard design

##### **SIMATIC HMI MTP700 Unified Comfort Panel**

6AV2128-3GB06-0AX1

7" widescreen TFT display, touch operation, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source SW which is provided free of charge. See enclosed DVD

##### **SIMATIC HMI MTP1000 Unified Comfort Panel**

6AV2128-3KB06-0AX1

10.1" widescreen TFT display, touch operation, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source SW which is provided free of charge. See enclosed DVD

##### **SIMATIC HMI MTP1200 Unified Comfort Panel**

6AV2128-3MB06-0AX1

12.1" widescreen TFT display, touch operation, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source SW which is provided free of charge. See enclosed DVD

##### **SIMATIC HMI MTP1500 Unified Comfort Panel**

6AV2128-3QB06-0AX1

15.6" widescreen TFT display, touch operation, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source SW which is provided free of charge. See enclosed DVD

##### **SIMATIC HMI MTP1900 Unified Comfort Panel**

6AV2128-3UB06-0AX1

18.5" widescreen TFT display, touch operation, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD

Ordering data	Article No.	Article No.	
<p><b>SIMATIC HMI MTP2200 Unified Comfort Panel</b></p> <p>21.5" widescreen TFT display, touch operation, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3XB06-0AX1	<p><b>SIMATIC HMI MTP1500 Unified Comfort Panel</b></p> <p>Neutral, touch operation; 15.6" widescreen TFT display, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3QB36-0AX1
<p><b>Neutral design</b></p> <p><b>SIMATIC HMI MTP700 Unified Comfort Panel</b></p> <p>Neutral, touch operation; 7" widescreen TFT display, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3GB36-0AX1	<p><b>SIMATIC HMI MTP1900 Unified Comfort Panel</b></p> <p>Neutral, touch operation; 18.5" widescreen TFT display, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3UB36-0AX1
<p><b>SIMATIC HMI MTP1000 Unified Comfort Panel</b></p> <p>Neutral, touch operation; 10.1" widescreen TFT display, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3KB36-0AX1	<p><b>SIMATIC HMI MTP2200 Unified Comfort Panel</b></p> <p>Neutral, touch operation; 21.5" widescreen TFT display, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3XB36-0AX1
<p><b>SIMATIC HMI MTP1200 Unified Comfort Panel</b></p> <p>Neutral, touch operation; 12.1" widescreen TFT display, 16 million colors, PROFINET interface, configurable as from WinCC Unified Comfort V16; with additional certifications for explosion-proof areas and for use in marine engineering (see Technical specifications). Contains open source software, which is provided free of charge. See enclosed DVD</p>	6AV2128-3MB36-0AX1	<p><b>Software</b></p> <p><b>EDGE Runtime for SIMATIC Unified Comfort</b></p> <p>Runtime software, single license, license key for download, without software and documentation, Class A, email address required for delivery</p>	6AV2170-2BA00-0AA0

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### SIMATIC HMI Unified Comfort Panels Standard

#### Technical specifications

Article number	6AV2128-3GB06-0AX1	6AV2128-3KB06-0AX1	6AV2128-3MB06-0AX1	6AV2128-3QB06-0AX1	6AV2128-3UB06-0AX1	6AV2128-3XB06-0AX1
	SIMATIC HMI MTP700 Unified Comfort	SIMATIC HMI MTP1000 Unified Comfort	SIMATIC HMI MTP1200 Unified Comfort	SIMATIC HMI MTP1500 Unified Comfort	SIMATIC HMI MTP1900 Unified Comfort	SIMATIC HMI MTP2200 Unified Comfort
<b>General information</b>						
Product type designation	MTP700 Unified Comfort	MTP1000 Unified Comfort	MTP1200 Unified Comfort	MTP1500 Unified Comfort	MTP1900 Unified Comfort	MTP2200 Unified Comfort
<b>Display</b>						
Design of display	TFT	TFT	TFT	TFT	TFT	TFT
Screen diagonal	7 in	10.1 in	12.1 in	15.6 in	18.5 in	21.5 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216
<b>Resolution (pixels)</b>						
• Horizontal image resolution	800 pixel	1 280 pixel	1 280 pixel	1 366 pixel	1 920 pixel	1 920 pixel
• Vertical image resolution	480 pixel	800 pixel	800 pixel	768 pixel	1 080 pixel	1 080 pixel
<b>Backlighting</b>						
• MTBF backlighting (at 25 °C)	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h	50 000 h; At 25°C	30 000 h; At 25°C
<b>Control elements</b>						
<b>Touch operation</b>						
• Design as touch screen	Yes	Yes	Yes	Yes	Yes	Yes
• Design as multi-touch screen	Yes	Yes	Yes	Yes	Yes	Yes
<b>Installation type/mounting</b>						
Mounting in portrait format possible	Yes	Yes	Yes	Yes	Yes	Yes
<b>Supply voltage</b>						
Rated value (DC)	24 V	24 V	24 V	24 V	24 V	24 V
<b>Type of output</b>						
<b>Acoustics</b>						
• Speaker	No	No	No	No	No	No
<b>Time of day</b>						
<b>Clock</b>						
• Hardware clock (real-time)	Yes	Yes	Yes	Yes	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes	Yes	Yes	Yes	Yes	Yes
<b>Interfaces</b>						
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined
Number of USB interfaces	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)
Number of SD card slots	2	2	2	2	2	2
<b>Industrial Ethernet</b>						
• Number of ports of the integrated switch	2	2	2	2	2	2
<b>Protocols</b>						
PROFINET	Yes	Yes	Yes	Yes	Yes	Yes
<b>Redundancy mode</b>						
<b>Media redundancy</b>						
- MRP	Yes	Yes	Yes	Yes	Yes	Yes

### Technical specifications

Article number	6AV2128-3GB06-0AX1	6AV2128-3KB06-0AX1	6AV2128-3MB06-0AX1	6AV2128-3QB06-0AX1	6AV2128-3UB06-0AX1	6AV2128-3XB06-0AX1
	SIMATIC HMI MTP700 Unified Comfort	SIMATIC HMI MTP1000 Unified Comfort	SIMATIC HMI MTP1200 Unified Comfort	SIMATIC HMI MTP1500 Unified Comfort	SIMATIC HMI MTP1900 Unified Comfort	SIMATIC HMI MTP2200 Unified Comfort
<b>Degree and class of protection</b>						
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP20	IP20	IP20	IP20	IP20	IP20
NEMA (front)						
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes	Yes
• Enclosure Type 12 at the front	Yes	Yes	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes	Yes	Yes	Yes	Yes	Yes
CCC	Yes	Yes	Yes	Yes	Yes	Yes
<b>Use in hazardous areas</b>						
• ATEX Zone 2	Yes	Yes	Yes	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes	Yes	Yes	Yes
• cULus Class II Division 2	Yes	Yes	Yes	Yes	Yes	Yes
• FM Class I Division 2	Yes	Yes	Yes	Yes	Yes	Yes
• FM Class II Division 2	Yes	Yes	Yes	Yes	Yes	Yes
<b>Marine approval</b>						
• Germanischer Lloyd (GL)	No; included in DNV					
• American Bureau of Shipping (ABS)	Yes	Yes	Yes	Yes	Yes	Yes
• Bureau Veritas (BV)	Yes	Yes	Yes	Yes	Yes	Yes
• Det Norske Veritas (DNV)	Yes	Yes	Yes	Yes	Yes	Yes
• Korean Register of Shipping (KRS)	Yes	Yes	Yes	Yes	Yes	Yes
• Lloyds Register of Shipping (LRS)	Yes	Yes	Yes	Yes	Yes	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes	Yes	Yes	Yes	Yes	Yes
• Chinese Classification Society (CCS)	Yes	Yes	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>						
Suited for indoor use	Yes	Yes	Yes	Yes	Yes	Yes
Suited for outdoor use	No	No	No	No	No	No
<b>Ambient temperature during operation</b>						
<b>Operation (vertical installation)</b>						
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C	50 °C	50 °C	50 °C	45 °C	45 °C
<b>Relative humidity</b>						
• Operation, max.	90 %; no condensation					
<b>configuration / header</b>						
<b>Configuration software</b>						
• WinCC Unified Comfort Engineering (TIA Portal)	Yes	Yes	Yes	Yes	Yes	Yes
• WinCC Unified PC Engineering (TIA Portal)	Yes	Yes	Yes	Yes	Yes	Yes
<b>Languages</b>						
<b>Online languages</b>						
• Number of online/runtime languages	32	32	32	32	32	32

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### SIMATIC HMI Unified Comfort Panels Standard

#### Technical specifications

Article number	6AV2128-3GB06-0AX1	6AV2128-3KB06-0AX1	6AV2128-3MB06-0AX1	6AV2128-3QB06-0AX1	6AV2128-3UB06-0AX1	6AV2128-3XB06-0AX1
	SIMATIC HMI MTP700 Unified Comfort	SIMATIC HMI MTP1000 Unified Comfort	SIMATIC HMI MTP1200 Unified Comfort	SIMATIC HMI MTP1500 Unified Comfort	SIMATIC HMI MTP1900 Unified Comfort	SIMATIC HMI MTP2200 Unified Comfort
<b>Functionality under WinCC Unified</b>						
Applications/options						
• Writer	Yes	Yes	Yes	Yes	Yes	Yes
• Calc	Yes					
• Web browser	Yes	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes					
• Media Player	Yes	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes	Yes	Yes	Yes
• Unified Collaboration	Yes	Yes	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	No					
JavaScript	Yes	Yes	Yes	Yes	Yes	Yes
Task planner						
• time-controlled	Yes	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes	Yes
<b>functionality under WinCC Unified / alarm system / header</b>						
• Bit messages						
- Number of bit messages	9 000	9 000	9 000	9 000	9 000	9 000
• Analog messages						
- Number of analog messages	300	300	300	300	300	300
• Message buffer	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive
- Circulating buffer	Yes	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes	Yes
<b>Parameter set management (recipes)</b>						
• Number of parameter set types	750	750	750	750	750	750
• Size of internal parameter set memory	12 Mbyte			12 Mbyte		
• Parameter set memory expandable	Yes	Yes	Yes	Yes	Yes	Yes
<b>functionality under WinCC Unified / variables / header</b>						
• Number of variables per device	8 000	8 000	8 000	8 000	8 000	8 000
• Number of variables per screen	600	600	600	800	800	800
<b>functionality under WinCC Unified / screens / header</b>						
• Number of configurable images	1 200	1 200	1 200	1 200	1 200	1 200
<b>functionality under WinCC Unified / archiving / header</b>						
• Number of archives per device	50	50	50	50	50	50
<b>Security</b>						
• Number of roles	50	50	50	50	50	50
• Number of users	200	200	200	200	200	200
• Central user administration	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17
<b>functionality under WinCC Unified / transfer (upload/download) / header</b>						
• Ethernet	Yes	Yes	Yes	Yes	Yes	Yes
<b>Process coupling</b>						
• S7-1200	Yes	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes	Yes
• S7-200	No	No	No	No	No	No
• S7-300/400	Yes	Yes	Yes	Yes	Yes	Yes
• Number of S7 connections	16	16	16	16	16	16
• LOGO!	No	No	No	No	No	No
• SIMOTION	No	No	No	No	No	No
• OPC UA Client	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes	Yes
• Software Controller/Open Controller	Yes	Yes	Yes	Yes	Yes	Yes

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	SIMATIC HMI MTP700 Unified Comfort	SIMATIC HMI MTP1000 Unified Comfort	SIMATIC HMI MTP1200 Unified Comfort	SIMATIC HMI MTP1500 Unified Comfort	SIMATIC HMI MTP1900 Unified Comfort	SIMATIC HMI MTP2200 Unified Comfort
<b>Peripherals/Options</b>						
Peripherals	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader
Printer	Yes	Yes	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	No	No	No	No	No	No
SIMATIC HMI SD memory card: Secure Digital memory card	Yes	Yes	Yes	Yes	Yes	Yes
USB memory	Yes	Yes	Yes	Yes	Yes	Yes
Network camera	No	No	No	No	No	No
<b>Mechanics/material</b>						
Enclosure material (front)						
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
<b>Dimensions</b>						
Width of the housing front	214 mm	280 mm	326 mm	398 mm	464 mm	529 mm
Height of housing front	158 mm	205 mm	237 mm	257 mm	294 mm	331 mm
Mounting cutout, width	197 mm	264 mm	310 mm	382 mm	448 mm	513 mm
Mounting cutout, height	141 mm	189 mm	221 mm	241 mm	278 mm	315 mm
Overall depth	64 mm	64 mm	64 mm	73 mm	73 mm	73 mm
<b>Weights</b>						
Weight (without packaging)	1.4 kg	2.1 kg	2.8 kg	4.3 kg	5.5 kg	6.9 kg

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Article number	6AV2128-3GB36-0AX1	6AV2128-3KB36-0AX1	6AV2128-3MB36-0AX1	6AV2128-3QB36-0AX1	6AV2128-3UB36-0AX1	6AV2128-3XB36-0AX1
	SIMATIC HMI MTP700 Unified Comfort Neutr	SIMATIC HMI MTP1000 Unified Comfort Neutr	SIMATIC HMI MTP1200 Unified Comfort Neutr	SIMATIC HMI MTP1500 Unified Comfort Neutr	SIMATIC HMI MTP1900 Unified Comfort Neutr	SIMATIC HMI MTP2200 Unified Comfort Neutr
<b>General information</b>						
Product type designation	MTP700 Unified Comfort	MTP1000 Unified Comfort	MTP1200 Unified Comfort	MTP1500 Unified Comfort	MTP1900 Unified Comfort	MTP2200 Unified Comfort
<b>Display</b>						
Design of display	TFT	TFT	TFT	TFT	TFT	TFT
Screen diagonal	7 in	10.1 in	12.1 in	15.6 in	18.5 in	21.5 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216
<b>Resolution (pixels)</b>						
• Horizontal image resolution	800 pixel	1 280 pixel	1 280 pixel	1 366 pixel	1 920 pixel	1 920 pixel
• Vertical image resolution	480 pixel	800 pixel	800 pixel	768 pixel	1 080 pixel	1 080 pixel
<b>Backlighting</b>						
• MTBF backlighting (at 25 °C)	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h; At 25°C	50 000 h	50 000 h; At 25°C	30 000 h; At 25°C
<b>Control elements</b>						
<b>Touch operation</b>						
• Design as touch screen	Yes	Yes	Yes	Yes	Yes	Yes
• Design as multi-touch screen	Yes	Yes	Yes	Yes	Yes	Yes
<b>Installation type/mounting</b>						
Mounting in portrait format possible	Yes	Yes	Yes	Yes	Yes	Yes
<b>Supply voltage</b>						
Rated value (DC)	24 V	24 V	24 V	24 V	24 V	24 V
<b>Type of output</b>						
<b>Acoustics</b>						
• Speaker	No	No	No	No	No	No
<b>Time of day</b>						
<b>Clock</b>						
• Hardware clock (real-time)	Yes	Yes	Yes	Yes	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes	Yes	Yes	Yes	Yes	Yes
<b>Interfaces</b>						
Number of industrial Ethernet interfaces	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined
Number of USB interfaces	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)	4; USB 3.1 Gen. 1 (type A)
Number of SD card slots	2	2	2	2	2	2
<b>Industrial Ethernet</b>						
• Number of ports of the integrated switch	2	2	2	2	2	2
<b>Protocols</b>						
PROFINET	Yes	Yes	Yes	Yes	Yes	Yes
<b>Redundancy mode</b>						
<b>Media redundancy</b>						
- MRP	Yes	Yes	Yes	Yes	Yes	Yes



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Article number	6AV2128-3GB36-0AX1	6AV2128-3KB36-0AX1	6AV2128-3MB36-0AX1	6AV2128-3QB36-0AX1	6AV2128-3UB36-0AX1	6AV2128-3XB36-0AX1
	SIMATIC HMI MTP700 Unified Comfort Neutr	SIMATIC HMI MTP1000 Unified Comfort Neutr	SIMATIC HMI MTP1200 Unified Comfort Neutr	SIMATIC HMI MTP1500 Unified Comfort Neutr	SIMATIC HMI MTP1900 Unified Comfort Neutr	SIMATIC HMI MTP2200 Unified Comfort Neutr
<b>Degree and class of protection</b>						
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP20	IP20	IP20	IP20	IP20	IP20
NEMA (front)						
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes	Yes
• Enclosure Type 12 at the front	Yes	Yes	Yes	Yes	Yes	Yes
<b>Standards, approvals, certificates</b>						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes	Yes	Yes	Yes	Yes	Yes
CCC	Yes	Yes	Yes	Yes	Yes	Yes
<b>Use in hazardous areas</b>						
• ATEX Zone 2	Yes	Yes	Yes	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes	Yes	Yes	Yes
• IECEX Zone 2	Yes	Yes	Yes	Yes	Yes	Yes
• IECEX Zone 22	Yes	Yes	Yes	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes	Yes	Yes	Yes
• cULus Class II Division 2	Yes	Yes	Yes	Yes	Yes	Yes
• FM Class I Division 2	Yes	Yes	Yes	Yes	Yes	Yes
• FM Class II Division 2	Yes	Yes	Yes	Yes	Yes	Yes
<b>Marine approval</b>						
• Germanischer Lloyd (GL)	No; included in DNV					
• American Bureau of Shipping (ABS)	Yes	Yes	Yes	Yes	Yes	Yes
• Bureau Veritas (BV)	Yes	Yes	Yes	Yes	Yes	Yes
• Det Norske Veritas (DNV)	Yes	Yes	Yes	Yes	Yes	Yes
• Korean Register of Shipping (KRS)	Yes	Yes	Yes	Yes	Yes	Yes
• Lloyds Register of Shipping (LRS)	Yes	Yes	Yes	Yes	Yes	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes	Yes	Yes	Yes	Yes	Yes
• Chinese Classification Society (CCS)	Yes	Yes	Yes	Yes	Yes	Yes
<b>Ambient conditions</b>						
Suited for indoor use	Yes	Yes	Yes	Yes	Yes	Yes
Suited for outdoor use	No	No	No	No	No	No
<b>Ambient temperature during operation</b>						
<b>Operation (vertical installation)</b>						
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C	50 °C	50 °C	50 °C	45 °C	45 °C
<b>Relative humidity</b>						
• Operation, max.	90 %; no condensation					
<b>configuration / header</b>						
<b>Configuration software</b>						
• WinCC Unified Comfort Engineering (TIA Portal)	Yes	Yes	Yes	Yes	Yes	Yes
• WinCC Unified PC Engineering (TIA Portal)	Yes	Yes	Yes	Yes	Yes	Yes
<b>Languages</b>						
<b>Online languages</b>						
• Number of online/runtime languages	32	32	32	32	32	32

## Operator panels

Advanced HMI Panel-based  
Unified Comfort Panels

### SIMATIC HMI Unified Comfort Panels Standard

#### Technical specifications

Article number	6AV2128-3GB36-0AX1	6AV2128-3KB36-0AX1	6AV2128-3MB36-0AX1	6AV2128-3QB36-0AX1	6AV2128-3UB36-0AX1	6AV2128-3XB36-0AX1
	SIMATIC HMI MTP700 Unified Comfort Neutr	SIMATIC HMI MTP1000 Unified Comfort Neut	SIMATIC HMI MTP1200 Unified Comfort Neut	SIMATIC HMI MTP1500 Unified Comfort Neut	SIMATIC HMI MTP1900 Unified Comfort Neut	SIMATIC HMI MTP2200 Unified Comfort Neut
<b>Functionality under WinCC Unified</b>						
Applications/options						
• Writer	Yes	Yes	Yes	Yes	Yes	Yes
• Calc	Yes					
• Web browser	Yes	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes					
• Media Player	Yes	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes	Yes	Yes	Yes
• Unified Collaboration	Yes	Yes	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	No					
JavaScript	Yes	Yes	Yes	Yes	Yes	Yes
Task planner						
• time-controlled	Yes	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes	Yes
<b>functionality under WinCC Unified / alarm system / header</b>						
• Bit messages						
- Number of bit messages	9 000	9 000	9 000	9 000	9 000	9 000
• Analog messages						
- Number of analog messages	300	300	300	300	300	300
• Message buffer	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive	Yes; Configured as alarm archive
- Circulating buffer	Yes	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes	Yes
<b>Parameter set management (recipes)</b>						
• Number of parameter set types	750	750	750	750	750	750
• Size of internal parameter set memory	12 Mbyte			12 Mbyte		
• Parameter set memory expandable	Yes	Yes	Yes	Yes	Yes	Yes
<b>functionality under WinCC Unified / variables / header</b>						
• Number of variables per device	8 000	8 000	8 000	8 000	8 000	8 000
• Number of variables per screen	600	600	600	800	800	800
<b>functionality under WinCC Unified / screens / header</b>						
• Number of configurable images	1 200	1 200	1 200	1 200	1 200	1 200
<b>functionality under WinCC Unified / archiving / header</b>						
• Number of archives per device	50	50	50	50	50	50
<b>Security</b>						
• Number of roles	50	50	50	50	50	50
• Number of users	200	200	200	200	200	200
• Central user administration	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17	Yes; as of WinCC V17
<b>functionality under WinCC Unified / transfer (upload/download) / header</b>						
• Ethernet	Yes	Yes	Yes	Yes	Yes	Yes
<b>Process coupling</b>						
• S7-1200	Yes	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes	Yes
• S7-200	No	No	No	No	No	No
• S7-300/400	Yes	Yes	Yes	Yes	Yes	Yes
• Number of S7 connections	16	16	16	16	16	16
• LOGO!	No	No	No	No	No	No
• SIMOTION	No	No	No	No	No	No
• OPC UA Client	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes	Yes
• Software Controller/Open Controller	Yes	Yes	Yes	Yes	Yes	Yes

### Technical specifications

Article number	6AV2128-3GB36-0AX1	6AV2128-3KB36-0AX1	6AV2128-3MB36-0AX1	6AV2128-3QB36-0AX1	6AV2128-3UB36-0AX1	6AV2128-3XB36-0AX1
	SIMATIC HMI MTP700 Unified Comfort Neutr	SIMATIC HMI MTP1000 Unified Comfort Neutr	SIMATIC HMI MTP1200 Unified Comfort Neutr	SIMATIC HMI MTP1500 Unified Comfort Neutr	SIMATIC HMI MTP1900 Unified Comfort Neutr	SIMATIC HMI MTP2200 Unified Comfort Neutr
<b>Peripherals/Options</b>						
Peripherals	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader	Printer, barcode reader
Printer	Yes	Yes	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	No	No	No	No	No	No
SIMATIC HMI SD memory card: Secure Digital memory card	Yes	Yes	Yes	Yes	Yes	Yes
USB memory	Yes	Yes	Yes	Yes	Yes	Yes
Network camera	No	No	No	No	No	No
<b>Mechanics/material</b>						
Enclosure material (front)						
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
<b>Dimensions</b>						
Width of the housing front	214 mm	280 mm	326 mm	398 mm	464 mm	529 mm
Height of housing front	158 mm	205 mm	237 mm	257 mm	294 mm	331 mm
Mounting cutout, width	197 mm	264 mm	310 mm	382 mm	448 mm	513 mm
Mounting cutout, height	141 mm	189 mm	221 mm	241 mm	278 mm	315 mm
Overall depth	64 mm	64 mm	64 mm	73 mm	73 mm	73 mm
<b>Weights</b>						
Weight (without packaging)	1.4 kg	2.1 kg	2.8 kg	4.3 kg	5.5 kg	6.9 kg

### More information

Every Unified Comfort Panel is available in two different design variants.

- The standard design has Siemens and SIMATIC HMI branding on the front and a silver-colored aluminum frame.
- The neutral design has no branding on the front and a black aluminum frame.

#### Note:

The devices with the Article No. extension \*-0AX1 have additional certifications for explosion-proof areas as well as for use in shipbuilding (see technical specifications). All other functions and properties are fully compatible with the devices with Article No. extension \*-0AX0.

More information is available on the internet at <https://www.siemens.com/unified-comfort-panels>

For selected SIMATIC HMI Unified Comfort Panels, the option exists to apply the customer name or logo or to select the membrane color in accordance with the customer's corporate design. This is also possible for small quantities.

More information is available at

<https://www.siemens.com/express-hmi-tool>