

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels standard devices

Overview



SIMATIC HMI Comfort Panels - Standard devices

- Excellent HMI functionality for demanding applications
- Widescreen TFT displays with 4", 7", 9", 12", 15", 19" and 22" diagonals (all 16 million colors) with up to 40% more visualization area as compared to the predecessor devices
- Integrated high-end functionality with archives, scripts, PDF/Word/Excel viewer, Internet Explorer, Media Player and Web Server
- Dimmable displays from 0 to 100% via PROFlenergy, via the HMI project or via a controller
- Modern industrial design, cast aluminum fronts for 7" upwards
- Upright installation for all touch devices
- Data security in the event of a power failure for the device and for the SIMATIC HMI Memory Card
- Innovative service and commissioning concept
- Maximum performance with short screen refresh times
- Suitable for extremely harsh industrial environments thanks to extended approvals such as ATEX 2/22 and marine approvals
- All versions can be used as an OPC UA client or as a server
- Key-operated devices with LED in every function key and new text input mechanism, similar to the keypads of mobile phones
- All keys have a service life of 2 million operations
- Configuring with the WinCC engineering software of the TIA Portal engineering framework

Note:

A 7" and a 15" Comfort Outdoor version are available. These devices have been specially designed for outdoor applications in difficult environments. Best display quality, even under sunlight, UV-resistant fronts and much more.

More information is available at

<http://www.siemens.com/comfort-panels>

Ordering data

Article No.

SIMATIC HMI Comfort Panels

Touch devices

SIMATIC HMI TP700 Comfort 6AV2124-0GC01-0AX0

Touch operation;
7" widescreen display

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

Touch operation;
9" widescreen display

SIMATIC HMI TP1200 Comfort 6AV2124-0MC01-0AX0

Touch operation;
12" widescreen display

SIMATIC HMI TP1500 Comfort 6AV2124-0QC02-0AX1

Touch operation;
15" widescreen display;
Ambient temperature up to 50 °C
(up to 55 °C with restriction)

SIMATIC HMI TP1500 Comfort 6AV2124-0QC02-0AX2

Touch operation;
15" widescreen display;
Ambient temperature up to 45 °C

SIMATIC HMI TP1900 Comfort 6AV2124-0UC02-0AX1

Touch operation;
19" widescreen display

SIMATIC HMI TP2200 Comfort 6AV2124-0XC02-0AX1

Touch operation;
22" widescreen display

Key devices

SIMATIC HMI KP700 Comfort 6AV2124-1GC01-0AX0

Key operation;
7" widescreen display

SIMATIC HMI KP900 Comfort 6AV2124-1JC01-0AX0

Key operation;
9" widescreen display

SIMATIC HMI KP1200 Comfort 6AV2124-1MC01-0AX0

Key operation;
12" widescreen display

SIMATIC HMI KP1500 Comfort 6AV2124-1QC02-0AX1

Key operation;
15" widescreen display;
Ambient temperature up to 50 °C
(up to 55 °C with restriction)

SIMATIC HMI KP1500 Comfort 6AV2124-1QC02-0AX2

Key operation;
15" widescreen display;
Ambient temperature up to 45 °C

Accessories

See "SIMATIC HMI operator control and monitoring systems" -> "Accessories"

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels standard devices

Technical specifications

Article number	6AV2124-1GC01-0AX0	6AV2124-1JC01-0AX0	6AV2124-1MC01-0AX0	6AV2124-1QC02-0AX1	6AV2124-1QC02-0AX2
	SIMATIC HMI KP700 Comfort	SIMATIC HMI KP900 Comfort	SIMATIC HMI KP1200 Comfort	SIMATIC HMI KP1500 Comfort	SIMATIC HMI KP1500 Comfort
General information					
Product type designation	KP700 Comfort	KP900 Comfort	KP1200 Comfort	KP1500 Comfort	KP1500 Comfort
Display					
Design of display	TFT	TFT	TFT	TFT	TFT
Screen diagonal	7 in	9 in	12.1 in	15.4 in	15.4 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)					
• Horizontal image resolution	800 pixel	800 pixel	1 280 pixel	1 280 pixel	1 280 pixel
• Vertical image resolution	480 pixel	480 pixel	800 pixel	800 pixel	800 pixel
Backlighting					
• MTBF backlighting (at 25 °C)	80 000 h				
Control elements					
Keyboard fonts					
• Function keys					
- Number of function keys	24	26	34	36	36
Touch operation					
• Design as touch screen	No; without	No; without	No; without	No; without	No
Installation type/mounting					
Wall mounting/direct mounting	No	No	No	No	No
Mounting in portrait format possible	No	No	No	No	No
Supply voltage					
Rated value (DC)	24 V				
Memory					
Memory available for user data	12 Mbyte	12 Mbyte	12 Mbyte	24 Mbyte	24 Mbyte
Type of output					
Acoustics					
• Speaker	Yes	Yes	Yes	Yes	Yes
Time of day					
Clock					
• Hardware clock (real-time)	Yes	Yes	Yes	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks				
• synchronizable	Yes	Yes	Yes	Yes	Yes
Interfaces					
Number of industrial Ethernet interfaces	1; 2 ports (switch)	1; 2 ports (switch)	1; 2 ports (switch)	2; 2 ports (switch) + independent port	2; 2 ports (switch) + independent port
Number of RS 485 interfaces	1; RS 422 / 485 combined				
Number of USB interfaces	2; USB 2.0				
• USB Mini B	1; 5-pole	1; 5-pole	1; 5-pole		
Number of SD card slots	2	2	2	2	2
Industrial Ethernet					
• Number of ports of the integrated switch	2	2	2	2	2

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels standard devices

Technical specifications

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	SIMATIC HMI KP700 Comfort	SIMATIC HMI KP900 Comfort	SIMATIC HMI KP1200 Comfort	SIMATIC HMI KP1500 Comfort	SIMATIC HMI KP1500 Comfort
Protocols					
PROFINET	Yes	Yes	Yes	Yes	Yes
IRT	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes	Yes; WinCC V14 SP1 HSP or higher
PROFIBUS	Yes	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes	Yes
Redundancy mode					
Media redundancy					
- MRP	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes	Yes
Degree and class of protection					
IP (at the front)	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP20	IP20	IP20	IP20	IP20
NEMA (front)					
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)				Yes	Yes
Use in hazardous areas					
• ATEX Zone 2	Yes	Yes	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes	Yes; For inscription on device rating plate	Yes
• cULus Class II Division 2				No; in preparation	No
• FM Class I Division 2	Yes	Yes	Yes	Yes; For inscription on device rating plate	Yes
• FM Class II Division 2				No; in preparation	No
Marine approval					
• Germanischer Lloyd (GL)	Yes	Yes	Yes; As of product version: 10	No	No
• American Bureau of Shipping (ABS)	Yes	Yes	Yes; As of product version: 10	No	Yes
• Bureau Veritas (BV)	Yes	Yes	Yes; As of product version: 10	No	Yes
• Det Norske Veritas (DNV)	Yes	Yes	Yes; As of product version: 10	No	Yes
• Korean Register of Shipping (KRS)				No	Yes
• Lloyds Register of Shipping (LRS)	Yes	Yes	Yes; As of product version: 10	No	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes	Yes	Yes; As of product version: 10	No	Yes
• Polski Rejestr Statkow (PRS)	No	No	No	No	No
• Chinese Classification Society (CCS)				No	Yes
Ambient conditions					
Suited for indoor use				Yes	Yes
Suited for outdoor use				No	No
Ambient temperature during operation					
Operation (vertical installation)					
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C; (55 °C, see entry ID: 64847814)				45 °C
Relative humidity					
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels standard devices

Technical specifications

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	SIMATIC HMI KP700 Comfort	SIMATIC HMI KP900 Comfort	SIMATIC HMI KP1200 Comfort	SIMATIC HMI KP1500 Comfort	SIMATIC HMI KP1500 Comfort
Configuration					
Configuration software					
• WinCC Comfort (TIA Portal)	Yes; from V11	Yes; from V11	Yes; from V11	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher
Languages					
Online languages					
• Number of online/runtime languages	32	32	32	32	32
Functionality under WinCC (TIA Portal)					
Applications/options					
• Web browser	Yes	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes	Yes
Task planner					
• time-controlled	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes
Message system					
• Bit messages	Yes	Yes	Yes		
- Number of bit messages	4 000	4 000	4 000	6 000	6 000
• Analog messages	Yes	Yes	Yes		
- Number of analog messages	200	200	200	200	200
• Message buffer					
- Number of entries	1 024	1 024	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes
Recipe management					
• Number of recipes	300	300	300	500	500
• Size of internal recipe memory	2 Mbyte	2 Mbyte	2 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes	Yes
Variables					
• Number of variables per device	2 048	2 048	2 048	4 096	4 096
• Number of variables per screen	400	400	400	400	400
Images					
• Number of configurable images	500	500	500	750	750
Archiving					
• Number of archives per device	50	50	50	50	50
Security					
• Number of user groups	50	50	50	50	50
• Number of users	50	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes	Yes
Logging through printer					
• Alarms	Yes	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)					
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes	Yes

Operator panels

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Comfort Panels standard devices

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	SIMATIC HMI KP700 Comfort	SIMATIC HMI KP900 Comfort	SIMATIC HMI KP1200 Comfort	SIMATIC HMI KP1500 Comfort	SIMATIC HMI KP1500 Comfort
Process coupling					
• S7-1200	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes
Peripherals/Options					
Printer	Yes	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
USB memory	Yes	Yes	Yes	Yes	Yes
Network camera	Yes	Yes	Yes	Yes	Yes
Mechanics/material					
Enclosure material (front)					
• Plastic	No	No	No	No	No
• Aluminum	Yes	Yes	Yes	Yes	Yes
• Stainless steel	No	No	No	No	No
Dimensions					
Width of the housing front	308 mm	361.2 mm	454 mm	483 mm	483 mm
Height of housing front	204 mm	230 mm	289 mm	310 mm	310 mm
Mounting cutout, width	282 mm	338 mm	434 mm	450 mm	450 mm
Mounting cutout, height	178 mm	206 mm	269 mm	291 mm	291 mm
Overall depth	63 mm	63 mm	64.6 mm	73.2 mm	73.2 mm
Weights					
Weight (without packaging)	2.2 kg	2.7 kg	4.4 kg	4.7 kg	4.7 kg

Operator panels

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Comfort Panels standard devices

Technical specifications

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General information							
Product type designation	TP700 Comfort	TP900 Comfort	TP1200 Comfort	TP1500 Comfort	TP1500 Comfort	TP1900 Comfort	TP2200 Comfort
Display							
Design of display	TFT	TFT	TFT	TFT	TFT	TFT	TFT
Screen diagonal	7 in	9 in	12.1 in	15.4 in	15.4 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	16 777 216
Resolution (pixels)							
• Horizontal image resolution	800 pixel	800 pixel	1 280 pixel	1 280 pixel	1 280 pixel	1 366 pixel	1 920 pixel
• Vertical image resolution	480 pixel	480 pixel	800 pixel	800 pixel	800 pixel	768 pixel	1 080 pixel
Backlighting							
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h	80 000 h	80 000 h	50 000 h	30 000 h
Control elements							
Keyboard fonts							
• Function keys							
- Number of function keys	0	0	0	0	0	0	0
Touch operation							
• Design as touch screen	Yes; Analog-resistive	Yes; Analog-resistive	Yes; Analog-resistive	Yes; Analog-resistive	Yes	Yes; Analog-resistive	Yes; Analog-resistive
Installation type/mounting							
Wall mounting/direct mounting	No	No	No				
Mounting in portrait format possible	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Supply voltage							
Rated value (DC)	24 V	24 V	24 V	24 V	24 V	24 V	24 V
Memory							
Memory available for user data	12 Mbyte	12 Mbyte	12 Mbyte	24 Mbyte	24 Mbyte	24 Mbyte	24 Mbyte
Type of output							
Acoustics							
• Speaker	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time of day							
Clock							
• Hardware clock (real-time)	Yes	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	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Interfaces							
Number of industrial Ethernet interfaces	1; 2 ports (switch)	1; 2 ports (switch)	1; 2 ports (switch)	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	1; RS 422 / 485 combined
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0
• USB Mini B	1; 5-pole	1; 5-pole	1; 5-pole				
Number of SD card slots	2	2	2	2	2	2	2
Industrial Ethernet							
• Number of ports of the integrated switch	2	2	2	2	2	2	2
Protocols							
PROFINET	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IRT	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes	Yes; WinCC V14 SP1 HSP or higher	Yes	Yes
PROFIBUS	Yes	Yes	Yes	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Redundancy mode							
Media redundancy							
- MRP	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels standard devices

Technical specifications

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	SIMATIC HMI TP700 Comfort	SIMATIC HMI TP900 Comfort	SIMATIC HMI TP1200 Comfort	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1900 Comfort	SIMATIC HMI TP2200 Comfort
Degree and class of protection							
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP20	IP20	IP20	IP20	IP20	IP20	IP20
NEMA (front)							
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates							
CE mark	Yes	Yes	Yes	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FM approval					Yes		
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)				Yes	Yes	Yes	Yes
Use in hazardous areas							
• ATEX Zone 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes	Yes; For inscription on device rating plate	Yes	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• cULus Class II Division 2				No; in preparation	No	No; in preparation	No; in preparation
• FM Class I Division 2	Yes	Yes	Yes	Yes; For inscription on device rating plate	Yes	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• FM Class II Division 2				No; in preparation	No	No; in preparation	No; in preparation
Marine approval							
• Germanischer Lloyd (GL)	Yes	Yes	Yes; As of product version: 10	No	No	No	No
• American Bureau of Shipping (ABS)	Yes	Yes	Yes; As of product version: 10	Yes	Yes	No	No
• Bureau Veritas (BV)	Yes	Yes	Yes; As of product version: 10	Yes	Yes	No	No
• Det Norske Veritas (DNV)	Yes	Yes	Yes; As of product version: 10	Yes	Yes	No	No
• Korean Register of Shipping (KRS)				Yes	Yes	No	No
• Lloyds Register of Shipping (LRS)	Yes	Yes	Yes; As of product version: 10	Yes	Yes	No	No
• Nippon Kaiji Kyokai (Class NK)	Yes	Yes	Yes; As of product version: 10	Yes	Yes	No	No
• Polski Rejestr Statkow (PRS)	No	No	No	No	No	No	No
• Chinese Classification Society (CCS)				Yes	Yes	No	No
Ambient conditions							
Suited for indoor use	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Suited for outdoor use	No	No	No	No	No	No	No
Ambient temperature during operation							
Operation (vertical installation)							
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C; (55 °C, see entry ID: 64847814)	50 °C; (55 °C, see entry ID: 64847814)	50 °C; (55 °C, see entry ID: 64847814)	50 °C; (55 °C, see entry ID: 64847814)	45 °C	45 °C	45 °C

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels standard devices

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	SIMATIC HMI TP700 Comfort	SIMATIC HMI TP900 Comfort	SIMATIC HMI TP1200 Comfort	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1900 Comfort	SIMATIC HMI TP2200 Comfort
Relative humidity							
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation
configuration / header							
Configuration software							
• WinCC Comfort (TIA Portal)	Yes; from V11	Yes; from V11	Yes; from V11	Yes; V14 SP1 HSP and higher			
Languages							
Online languages							
• Number of online/runtime languages	32	32	32	32	32	32	32
Functionality under WinCC (TIA Portal)							
Applications/options							
• Web browser	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Task planner							
• time-controlled	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Message system							
• Bit messages	Yes	Yes	Yes				
- Number of bit messages	4 000	4 000	4 000	6 000	6 000	6 000	6 000
• Analog messages	Yes	Yes	Yes				
- Number of analog messages	200	200	200	200	200	200	200
• Message buffer							
- Number of entries	1 024	1 024	1 024	1 024	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Recipe management							
• Number of recipes	300	300	300	500	500	500	500
• Size of internal recipe memory	2 Mbyte	2 Mbyte	2 Mbyte	4 Mbyte	4 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Variables							
• Number of variables per device	2 048	2 048	2 048	4 096	4 096	4 096	4 096
• Number of variables per screen	400	400	400	400	400	400	400
Images							
• Number of configurable images	500	500	500	750	750	750	750
Archiving							
• Number of archives per device	50	50	50	50	50	50	50
Security							
• Number of user groups	50	50	50	50	50	50	50
• Number of users	50	50	50	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Logging through printer							
• Alarms	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)							
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Operator panels

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Technical specifications

Article number	6AV2124-0GC01-0AX0	6AV2124-0JC01-0AX0	6AV2124-0MC01-0AX0	6AV2124-0QC02-0AX1	6AV2124-0QC02-0AX2	6AV2124-0UC02-0AX1	6AV2124-0XC02-0AX1
	SIMATIC HMI TP700 Comfort	SIMATIC HMI TP900 Comfort	SIMATIC HMI TP1200 Comfort	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1500 Comfort	SIMATIC HMI TP1900 Comfort	SIMATIC HMI TP2200 Comfort
Process coupling							
• S7-1200	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Peripherals/Options							
Printer	Yes	Yes	Yes	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
USB memory	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Network camera	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Mechanics/material							
Enclosure material (front)							
• Plastic	No	No	No	No	No	No	No
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes	Yes
• Stainless steel	No	No	No	No	No	No	No
Dimensions							
Width of the housing front	214 mm	274 mm	330 mm	415 mm	415 mm	483 mm	560 mm
Height of housing front	158 mm	190 mm	241 mm	310 mm	310 mm	337 mm	380 mm
Mounting cutout, width	198 mm	251 mm	310 mm	396 mm	396 mm	465 mm	542 mm
Mounting cutout, height	142 mm	166 mm	221 mm	291 mm	291 mm	319 mm	362 mm
Overall depth	63 mm	62.7 mm	64 mm	73.2 mm	73.2 mm	73.2 mm	73.2 mm
Weights							
Weight (without packaging)	1.4 kg	1.9 kg	2.8 kg	4.4 kg	4.4 kg	5.6 kg	6.7 kg

More information

More information is available on the internet at

<http://www.siemens.com/comfort-panels>

You can find an overview of approved printers, supply sources and printer settings on the internet at

<http://support.industry.siemens.com/cs/ww/en/view/11376409>

Certain SIMATIC HMI Comfort Panels allow the application of a customer name or logo, or selection of 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>

Operator panels

Advanced HMI Panel-based
Comfort Panels

SIPLUS Comfort Panels Standard

Overview



- Excellent HMI functionality for demanding applications
- Widescreen TFT displays with 4", 7", 9", 12", 15", 19" and 22" diagonals (all 16 million colors) with up to 40% more visualization area as compared to the predecessor devices
- Integrated high-end functionality with archives, scripts, PDF/Word/Excel viewer, Internet Explorer, Media Player
- Dimmable displays from 0 to 100% via PROFIenergy, via the HMI project or via a controller
- Modern industrial design, cast aluminum fronts for 7" upwards
- Upright installation for all touch devices
- Optimal selection option: seven touch and five key versions are available
- Data security in the event of a power failure for the device and for the SIMATIC HMI Memory Card
- Innovative service and commissioning concept through second SD card (automatic backup)
- Easy project transfer via standard cable (standard Ethernet cable, standard USB cable)
- Maximum performance with short screen refresh times
- Suitable for extremely harsh industrial environments thanks to extended approvals such as ATEX 2/22
- Wide range of communication options: PROFIBUS and PROFINET onboard; 2x PROFINET with integrated switch for 7" models or larger; plus 1 additional PROFINET with Gigabit support for 15" models or larger
- All variants can be used as an OPC UA client or as an OPC DA server
- Key-operated devices with LED in every function key and new text input mechanism, similar to the keypads of mobile phones
- Key-operated devices with stamped keys for optimum tactile feedback
- All keys have a service life of 2 million operations
- Configuring with the WinCC engineering software of the TIA Portal

Note:

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

Ordering data

Article No.

SIPLUS HMI Comfort Panels, Touch	
SIPLUS HMI TP700 Comfort	6AG1124-0GC01-4AX0
SIPLUS HMI TP900 Comfort	6AG1124-0JC01-4AX0
SIPLUS HMI TP1200 Comfort	6AG1124-0MC01-4AX0
SIPLUS HMI TP1500 Comfort	6AG1124-0QC02-4AX1
SIPLUS HMI TP1900 Comfort	6AG1124-0UC02-4AX1
SIPLUS HMI TP2200 Comfort	6AG1124-0XC02-4AX1
SIPLUS HMI Comfort Panels, Keys	
SIPLUS HMI KP700 Comfort	6AG1124-1GC01-4AX0
SIPLUS HMI KP900 Comfort	6AG1124-1JC01-4AX0
SIPLUS HMI KP1200 Comfort	6AG1124-1MC01-4AX0
SIPLUS HMI KP1500 Comfort	6AG1124-1QC02-4AX1
Accessories	See HMI accessories

Operator panels

Advanced HMI Panel-based Comfort Panels

SIPLUS Comfort Panels Standard

Technical specifications

Article number	6AG1124-0GC01-4AX0 SIPLUS HMI TP700 COMFORT	6AG1124-0JC01-4AX0 SIPLUS HMI TP900 COMFORT	6AG1124-0MC01-4AX0 SIPLUS HMI TP1200 COMFORT
General information			
Product type designation	TP700 Comfort	TP900 Comfort	TP1200 Comfort
Ambient conditions			
Ambient temperature during operation			
Operation (vertical installation)			
- For vertical installation, min.	0 °C; = Tmin	0 °C; = Tmin	0 °C; = Tmin
- For vertical installation, max.	50 °C; = Tmax	50 °C; = Tmax	50 °C; = Tmax
Altitude during operation relating to sea level			
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity			
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance			
Coolants and lubricants			
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems			
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea			
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology			
- Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)	Yes; Class 3 (excluding trichlorethylene)	Yes; Class 3 (excluding trichlorethylene)
- Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark			
- Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating			
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability	Yes; Class 2 for high reliability	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A

Operator panels

Advanced HMI Panel-based
Comfort Panels

SIPLUS Comfort Panels Standard

Technical specifications

Article number	6AG1124-0QC02-4AX1 SIPLUS HMI TP1500 Comfort	6AG1124-0UC02-4AX1 SIPLUS HMI TP1900 Comfort	6AG1124-0XC02-4AX1 SIPLUS HMI TP2200 Comfort
General information			
Product type designation	TP1500 Comfort	TP1900 Comfort	TP2200 Comfort
Ambient conditions			
Ambient temperature during operation			
Operation (vertical installation)			
- For vertical installation, min.	0 °C	0 °C; = Tmin	0 °C; = Tmin
- For vertical installation, max.	50 °C; (55 °C, see entry ID: 64847814)	45 °C; = Tmax	45 °C; = Tmax
Altitude during operation relating to sea level			
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity			
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance			
Coolants and lubricants			
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems			
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *	Yes; Class 3S4 incl. sand, dust, *
Use on ships/at sea			
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *	Yes; Class 6S3 incl. sand, dust; *
Usage in industrial process technology			
- Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)	Yes; Class 3 (excluding trichlorethylene)	Yes; Class 3 (excluding trichlorethylene)
- Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark			
- Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating			
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability	Yes; Class 2 for high reliability	Yes; Class 2 for high reliability
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection	Yes; Type 1 protection	Yes; Type 1 protection
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A	Yes; Conformal coating, Class A

Operator panels

Advanced HMI Panel-based Comfort Panels

SIPLUS Comfort Panels Standard

Technical specifications

Article number	6AG1124-1GC01-4AX0 SIPLUS HMI KP700 Comfort	6AG1124-1JC01-4AX0 SIPLUS HMI KP900 Comfort	6AG1124-1MC01-4AX0 SIPLUS HMI KP1200 Comfort	6AG1124-1QC02-4AX1 SIPLUS HMI KP1500 Comfort
General information				
Product type designation	KP700 Comfort	KP900 Comfort	KP1200 Comfort	KP1500 Comfort
Ambient conditions				
Ambient temperature during operation				
Operation (vertical installation)				
- For vertical installation, min.	0 °C; = Tmin	0 °C; = Tmin	0 °C; = Tmin	0 °C
- For vertical installation, max.	50 °C; = Tmax	50 °C; = Tmax	50 °C; = Tmax	50 °C; (55 °C, see entry ID: 64847814)
Altitude during operation relating to sea level				
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 080 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax - 20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity				
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)	100 %; RH incl. condensation/frost (no commissioning under condensation conditions)
Resistance				
Coolants and lubricants				
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems				
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust; *			
Use on ships/at sea				
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *			
Usage in industrial process technology				
- Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)			
- Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)
Remark				
- Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!

Operator panels

Advanced HMI Panel-based
Comfort Panels

SIPLUS Comfort Panels Standard

Technical specifications

Article number	6AG1124-1GC01-4AX0 SIPLUS HMI KP700 Comfort	6AG1124-1JC01-4AX0 SIPLUS HMI KP900 Comfort	6AG1124-1MC01-4AX0 SIPLUS HMI KP1200 Comfort	6AG1124-1QC02-4AX1 SIPLUS HMI KP1500 Comfort
Conformal coating				
<ul style="list-style-type: none"> Coatings for printed circuit board assemblies acc. to EN 61086 Protection against fouling acc. to EN 60664-3 Military testing according to MIL-I-46058C, Amendment 7 Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A 	<ul style="list-style-type: none"> Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A 	<ul style="list-style-type: none"> Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A 	<ul style="list-style-type: none"> Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A 	<ul style="list-style-type: none"> Yes; Class 2 for high reliability Yes; Type 1 protection Yes; Discoloration of coating possible during service life Yes; Conformal coating, Class A

More information

More information is available on the internet at

<http://www.siemens.com/comfort-panels>

You can find an overview of approved printers, supply sources and printer settings on the internet at

<http://support.industry.siemens.com/cs/ww/en/view/11376409>

Certain SIMATIC HMI Comfort Panels allow the application of a customer name or logo, or selection of 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>

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels Outdoor

Overview



SIMATIC HMI Comfort Panels Outdoor

Special HMI Panels have been developed which are designed to withstand outdoor environments.

It's not only extreme temperatures which call for robust hardware. Direct sunlight, too, must not be allowed to impair display readability and the panel front must be protected from UV radiation.

The specially-bonded Outdoor fronts and the rugged hardware of the Outdoor Panels make the SIMATIC HMI Comfort Panels Outdoor a reliable partner in this environment.

- For outdoor operation without additional measures
- 7" and 15" daylight-readable display, widescreen
- Automatic, central or manual dimming of the backlight, with integrated sensor
- Panel front 100% UV protected
- Front resistant to salt mist
- Front IP66 and Nema4 x (indoor/outdoor)
- Numerous explosion protection and shipbuilding certifications
- Extended operating temperature range: from -30 °C to +60 °C at 3 000 m installation altitude
- TIA Portal central engineering tool (WinCC V13 SP1&HSP or higher)
- Comfort Panel functionality and performance

Notice:

The 7" Comfort Panel Outdoor corresponds to a 7" Comfort Panel Standard, the 15" Comfort Panel Outdoor corresponds to a 12" Comfort Panel Standard in respect of performance, functionality and quantity structure.

More information is available at

<http://www.siemens.com/comfort-panels-outdoor>

Ordering data

Article No.

SIMATIC HMI Comfort Panels Outdoor

SIMATIC TP700 Comfort Panel Outdoor

6AV2124-0GC13-0AX0

Touch operation,
7" widescreen TFT display,
16 million colors,
PROFINET interface,
MPI/PROFIBUS DP interface,
12 MB configuration memory,
Windows CE 6.0, configurable as
from WinCC Comfort V13, SP1, HSP

SIMATIC TP1500 Comfort Panel Outdoor

6AV2124-0QC13-0AX0

Touch operation,
15" widescreen TFT display,
16 million colors,
PROFINET interface,
MPI/PROFIBUS DP interface,
12 MB configuration memory,
Windows CE 6.0, configurable as
from WinCC Comfort V13, SP1, HSP

Accessories

See "SIMATIC HMI operator control and monitoring systems" -> "Accessories"

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels Outdoor

Technical specifications

Article number	6AV2124-0GC13-0AX0	6AV2124-0QC13-0AX0
	SIMATIC HMI TP700 Comfort Outdoor	SIMATIC HMI TP1500 Comfort Outdoor
General information		
Product type designation	TP700 Comfort Outdoor	TP1500 Comfort Outdoor
Display		
Design of display	TFT, bonded, daylight-readable	TFT, bonded, daylight-readable
Screen diagonal	7 in	15.4 in
Number of colors	16 777 216	16 777 216
Resolution (pixels)		
• Horizontal image resolution	800 pixel	1 280 pixel
• Vertical image resolution	480 pixel	800 pixel
Backlighting		
• MTBF backlighting (at 25 °C)	50 000 h	50 000 h
Control elements		
Keyboard fonts		
• Function keys		
- Number of function keys	0	0
Touch operation		
• Design as touch screen	Yes; Analog- resistive	Yes; Analog- resistive
Installation type/mounting		
Mounting in portrait format possible	Yes	Yes
Supply voltage		
Rated value (DC)	24 V	24 V
Memory		
Memory available for user data	12 Mbyte	12 Mbyte
Type of output		
Acoustics		
• Speaker	Yes	Yes
Time of day		
Clock		
• Hardware clock (real-time)	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks	Yes; Back-up duration typically 6 weeks
• synchronizable	Yes	Yes
Interfaces		
Number of industrial Ethernet interfaces	2	2
Number of RS 485 interfaces	1; RS 422 / 485 combined	1; RS 422 / 485 combined
Number of USB interfaces	2; USB 2.0	2; USB 2.0
• USB Mini B	1; 5-pole	1; 5-pole
Number of SD card slots	2	2
Industrial Ethernet		
• Number of ports of the integrated switch	2	2

Article number	6AV2124-0GC13-0AX0	6AV2124-0QC13-0AX0
	SIMATIC HMI TP700 Comfort Outdoor	SIMATIC HMI TP1500 Comfort Outdoor
Protocols		
PROFINET	Yes	Yes
IRT	Yes; WinCC V13 SP1 HSP or higher	Yes; WinCC V13 SP1 HSP or higher
PROFIBUS	Yes	Yes
MPI	Yes	Yes
Redundancy mode		
Media redundancy		
- MRP	Yes; WinCC V13 SP1 HSP or higher	Yes; WinCC V13 SP1 HSP or higher
Degree and class of protection		
IP (at the front)	IP66	IP66
IP (rear)	IP20	IP20
NEMA (front)		
• Enclosure Type 4x at the front	Yes	Yes
Standards, approvals, certificates		
CE mark	Yes	Yes
cULus	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes
KC approval	Yes	Yes
Use in hazardous areas		
• ATEX Zone 2	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• ATEX Zone 22	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• IECEx Zone 2	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• IECEx Zone 22	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• cULus Class I Zone 2, Division 2	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
• FM Class I Division 2	Yes; For inscription on device rating plate	Yes; For inscription on device rating plate
Marine approval		
• Germanischer Lloyd (GL)	Yes	Yes
• American Bureau of Shipping (ABS)	Yes	Yes
• Bureau Veritas (BV)	Yes; in preparation	Yes; in preparation
• Det Norske Veritas (DNV)	Yes	Yes
• Korean Register of Shipping (KRS)	No; in preparation	No; in preparation
• Lloyds Register of Shipping (LRS)	Yes	Yes
• Nippon Kaiji Kyokai (Class NK)	Yes; in preparation	Yes; in preparation
• Polski Rejestr Statkow (PRS)	No	No
• Chinese Classification Society (CCS)	Yes; in preparation	Yes; in preparation
• Compass working clearance	5 m	5 m

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels Outdoor

Technical specifications

Article number	6AV2124-0GC13-0AX0	6AV2124-0QC13-0AX0
	SIMATIC HMI TP700 Comfort Outdoor	SIMATIC HMI TP1500 Comfort Outdoor
Ambient conditions		
Suited for indoor use	Yes	Yes
Suited for outdoor use	Yes; Powder-coated, UV resistant	Yes; Powder-coated, UV resistant
Ambient temperature during operation		
Operation (vertical installation)		
- For vertical installation, min.	-30 °C	-30 °C
- For vertical installation, max.	60 °C; (55 °C, see entry ID: 64847814)	60 °C; (55 °C, see entry ID: 64847814)
Altitude during operation relating to sea level		
• Installation altitude above sea level, max.	3 000 m; Depending on the operating temperature	3 000 m; Depending on the operating temperature
Relative humidity		
• Operation, max.	90 %; no condensation	90 %; no condensation
configuration / header		
Configuration software		
• WinCC Comfort (TIA Portal)	Yes; WinCC V13 SP1 Update 7 + HSP or higher	Yes; WinCC V13 SP1 Update 7 + HSP or higher
Languages		
Online languages		
• Number of online/runtime languages	32	32
Functionality under WinCC (TIA Portal)		
Applications/options		
• Web browser	Yes	Yes
• Pocket Word	Yes	Yes
• Pocket Excel	Yes	Yes
• PDF Viewer	Yes	Yes
• Media Player	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes
Task planner		
• time-controlled	Yes	Yes
• task-controlled	Yes	Yes
Message system		
• Bit messages		
- Number of bit messages	4 000	4 000
• Analog messages		
- Number of analog messages	200	200
• Message buffer		
- Number of entries	1 024	1 024
- Circulating buffer	Yes	Yes
- retentive	Yes	Yes

Article number	6AV2124-0GC13-0AX0	6AV2124-0QC13-0AX0
	SIMATIC HMI TP700 Comfort Outdoor	SIMATIC HMI TP1500 Comfort Outdoor
Recipe management		
• Number of recipes	300	300
• Size of internal recipe memory	2 Mbyte	2 Mbyte
• Recipe memory expandable	Yes	Yes
Variables		
• Number of variables per device	2 048	2 048
• Number of variables per screen	400	400
Images		
• Number of configurable images	500	500
Archiving		
• Number of archives per device	50	50
Security		
• Number of user groups	50	50
• Number of users	50	50
• SIMATIC Logon	Yes	Yes
Logging through printer		
• Alarms	Yes	Yes
• Report (shift log)	Yes	Yes
• Hardcopy	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)		
• MPI/PROFIBUS DP	Yes	Yes
• Ethernet	Yes	Yes
Process coupling		
• S7-1200	Yes	Yes
• S7-1500	Yes	Yes
• S7-200	Yes	Yes
• S7-300/400	Yes	Yes
• LOGO!	Yes	Yes
• WinAC	Yes	Yes
• SIMOTION	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes
• Mitsubishi (FX)	Yes	Yes
• OMRON (FINS TCP)	No	No
• OMRON (LINK/Multilink)	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes
• Modicon (Modbus)	Yes	Yes
• OPC UA Client	Yes	Yes
• OPC UA Server	Yes	Yes

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels Outdoor

Technical specifications

Article number	6AV2124-0GC13-0AX0	6AV2124-0QC13-0AX0
	SIMATIC HMI TP700 Comfort Outdoor	SIMATIC HMI TP1500 Comfort Outdoor
Peripherals/Options		
Printer	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes	Yes
SIMATIC HMI SD memory card: Secure Digital memory card	Yes	Yes
USB memory	Yes; e.g. USB RFID reader, see FAQ entry ID: 99808171	
Network camera	Yes; See FAQ Entry ID: 62383298 and entry ID: 65647473	
Accessories		
Expansion module	Optional e.g. USB RFID reader, see FAQ entry ID: 99808171	
Further accessories are available	Yes; Mounting clips and 2-pin power supply connector	
Mechanics/material		
Enclosure material (front)		
• Plastic	No	No
• Aluminum	Yes; Powder-coated, UV resistant	Yes; Powder-coated, UV resistant
• Stainless steel	No	No

Article number	6AV2124-0GC13-0AX0	6AV2124-0QC13-0AX0
	SIMATIC HMI TP700 Comfort Outdoor	SIMATIC HMI TP1500 Comfort Outdoor
Dimensions		
Width of the housing front	214 mm	415 mm
Height of housing front	158 mm	310 mm
Mounting cutout, width	198 mm	396 mm
Mounting cutout, height	142 mm	291 mm
Overall depth	64.6 mm	73.2 mm
Weights		
Weight (without packaging)	1.5 kg	4 kg
Other		
Note:	Power, quantity structure and performance correspond to a standard 7" Comfort Panel	Power, quantity structure and performance correspond to a standard 12" Comfort Panel

More information

More information is available on the internet at

<http://www.siemens.com/comfort-panels-outdoor>

Note:

The TP700 Comfort Panel Outdoor is comparable with the TP700 Comfort Panel Standard.

The TP1500 Comfort Panel Outdoor is comparable with the TP1200 Comfort Panel Standard with a 15" display.

A TP1500 Comfort Standard unit with the maximum possible configuration cannot be installed on a TP1500 Comfort Panel Outdoor.

Operator panels

Advanced HMI Panel-based
Comfort Panels

SIPLUS Comfort Panels Outdoor

Overview



SIPLUS HMI Comfort Panels Outdoor

Special HMI Panels have been developed which are designed to withstand outdoor environments.

It's not only extreme temperatures which call for robust hardware. Direct sunlight, too, must not be allowed to impair display readability and the panel front must be protected from UV radiation. The specially-bonded Outdoor fronts and the rugged hardware of the Outdoor Panels make the SIMATIC HMI Comfort Panels Outdoor a reliable partner in this environment.

- For outdoor operation without additional measures
- 7" and 15" daylight-readable display, widescreen
- Automatic, central or manual dimming of the backlight, with integrated sensor
- Panel front 100% UV protected
- Front resistant to salt mist
- Front IP66 and Nema4 x (indoor/outdoor)
- Many explosion protection and shipbuilding certifications
- Extended operating temperature range: from -30 °C to +60 °C at 3 000 m installation altitude
- TIA Portal central engineering tool (WinCC V13 SP1&HSP or higher)
- Comfort Panel functionality and performance

Notice:

The SIPLUS HMI 7" Comfort Panel Outdoor corresponds to a SIPLUS HMI 7" Comfort Panel Standard, the SIPLUS HMI 15" Comfort Panel Outdoor corresponds to a SIPLUS HMI 12" Comfort Panel Standard in respect of performance, functionality and quantity structure.

<http://www.siemens.com/comfort-panels-outdoor>

Note:

SIPLUS extreme products are based on SIMATIC standard products. The contents listed here were taken from the respective standard products. SIPLUS extreme-specific information was added.

Ordering data

Article No.

SIPLUS HMI Comfort Outdoor Panels

SIPLUS HMI TP700 Comfort Panel Outdoor

6AG1124-0GC13-2AX0

For areas with extreme exposure to environmental substances (conformal coating); ambient temperature -30 ... +60 °C

Touch operation,
7" widescreen TFT display,
16 million colors,
PROFINET interface,
MPI/PROFIBUS DP interface,
12 MB configuration memory,
Windows CE 6.0, configurable as
from WinCC Comfort V13, SP1, HSP

SIPLUS HMI TP700 Comfort Outdoor M

6AG1124-0GC13-2AM0

Conformity with the
MIL-STD-461G standard:
MIL-STD-461G RE102 and
MIL-STD-461G RE103.

SIPLUS HMI TP1500 Comfort Panel Outdoor

6AG1124-0QC13-2AX0

For areas with extreme exposure to environmental substances (conformal coating); ambient temperature -30 ... +60 °C

Touch operation,
15" widescreen TFT display,
16 million colors,
PROFINET interface,
MPI/PROFIBUS DP interface,
12 MB configuration memory,
Windows CE 6.0, configurable as
from WinCC Comfort V13, SP1, HSP

SIPLUS HMI TP1500 Comfort Outdoor M

6AG1124-0QC13-2AM0

Conformity with the
MIL-STD-461G standard:
MIL-STD-461G RE102 and
MIL-STD-461G RE103.

Accessories

See "SIMATIC HMI operator control and monitoring systems" -> "Accessories"

Operator panels

Advanced HMI Panel-based
Comfort Panels

SIPLUS Comfort Panels Outdoor

Technical specifications

Article number	6AG1124-0GC13-2AX0 SIPLUS HMI TP700 Comfort Outdoor	6AG1124-0GC13-2AM0 SIPLUS HMI TP700 Comfort Outdoor M	6AG1124-0QC13-2AX0 SIPLUS HMI TP1500 Comfort Outdoor	6AG1124-0QC13-2AM0 SIPLUS HMI TP1500 Comfort Outdoor M
General information				
Product type designation	TP700 Comfort Outdoor	TP700 Comfort Outdoor	TP1500 Outdoor	TP1500 Outdoor
Ambient conditions				
Ambient temperature during operation				
Operation (vertical installation)				
- For vertical installation, min.	-30 °C; = Tmin			
- For vertical installation, max.	60 °C; (55 °C, see entry ID: 64847814)	60 °C; (55 °C, see entry ID: 64847814)	60 °C; (55 °C, see entry ID: 64847814)	60 °C; (55 °C, see entry ID: 64847814)
Altitude during operation relating to sea level				
• Installation altitude above sea level, max.	5 000 m	5 000 m	5 000 m	5 000 m
• Ambient air temperature-barometric pressure-altitude	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)	Tmin ... Tmax at 1 140 hPa ... 795 hPa (-1 000 m ... +2 000 m) // Tmin ... (Tmax - 10 K) at 795 hPa ... 658 hPa (+2 000 m ... +3 500 m) // Tmin ... (Tmax -20 K) at 658 hPa ... 540 hPa (+3 500 m ... +5 000 m)
Relative humidity				
• With condensation, tested in accordance with IEC 60068-2-38, max.	100 %; RH incl. condensation/frost (no commissioning when condensation present), vertical mounting position	100 %; RH incl. condensation/frost (no commissioning when condensation present), vertical mounting position	100 %; RH incl. condensation/frost (no commissioning when condensation present), vertical mounting position	100 %; RH incl. condensation/frost (no commissioning when condensation present), vertical mounting position
Resistance				
Coolants and lubricants				
- Resistant to commercially available coolants and lubricants	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air	Yes; Incl. diesel and oil droplets in the air
Use in stationary industrial systems				
- to biologically active substances according to EN 60721-3-3	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request	Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request
- to chemically active substances according to EN 60721-3-3	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 3C4 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust; *			
Use on ships/at sea				
- to biologically active substances according to EN 60721-3-6	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)	Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request	Yes; Class 6B2 mold, fungal and dry rot spores (excluding fauna)
- to chemically active substances according to EN 60721-3-6	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *	Yes; Class 6C3 (RH < 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *
- to mechanically active substances according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust; *			
Usage in industrial process technology				
- Against chemically active substances acc. to EN 60654-4	Yes; Class 3 (excluding trichlorethylene)			
- Environmental conditions for process, measuring and control systems acc. to ANSI/ISA-71.04	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)	Yes; Level GX group A/B (excluding trichlorethylene; harmful gas concentrations up to the limits of EN 60721-3-3 class 3C4 permissible); level LC3 (salt spray) and level LB3 (oil)

Operator panels

Advanced HMI Panel-based
Comfort Panels

SIPLUS Comfort Panels Outdoor

Technical specifications

Article number	6AG1124-0GC13-2AX0	6AG1124-0GC13-2AM0	6AG1124-0QC13-2AX0	6AG1124-0QC13-2AM0
	SIPLUS HMI TP700 Comfort Outdoor	SIPLUS HMI TP700 Comfort Outdoor M	SIPLUS HMI TP1500 Comfort Outdoor	SIPLUS HMI TP1500 Comfort Outdoor M
Remark				
- Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!	* The supplied plug covers must remain in place over the unused interfaces during operation!
Conformal coating				
• Coatings for printed circuit board assemblies acc. to EN 61086	Yes; Class 2 for high reliability			
• Protection against fouling acc. to EN 60664-3	Yes; Type 1 protection			
• Military testing according to MIL-I-46058C, Amendment 7	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life	Yes; Discoloration of coating possible during service life
• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal coating, Class A			

More information

More information is available on the Internet at:

<http://www.siemens.com/comfort-panels-outdoor>

Note:

The SIPLUS HMI TP700 Comfort Panel Outdoor is comparable with the SIPLUS HMI TP700 Comfort Panel Standard.

The SIPLUS HMI TP1500 Comfort Panel Outdoor is comparable with the SIPLUS HMI TP1200 Comfort Panel Standard with a 15" display.

A TP1500 Comfort Standard unit with the maximum possible configuration cannot be installed on a SIPLUS HMI TP1500 Comfort Panel Outdoor.

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels PRO

Overview



SIMATIC HMI Comfort PRO: The new Comfort Panel PRO with fully-enclosed IP65 degree of protection – powerful, ready-to-use, and can be installed directly at the machine

SIMATIC HMI Comfort Panels PRO with 12", 15", 19" and 22" widescreen format expand the Comfort Panel portfolio to include devices with glass fronts.

The rugged aluminum casing enables it to be used directly at the machine and guarantees durability, even in harsh and extreme operating environments.

Highlights:

- All-round IP65 degree of protection
- Comfort Panel functionality and performance
- Rugged, industrial 12", 15", 19" and 22" widescreen displays
- Slim, modern design
- Can be adapted to support arm system of various manufacturers
- Integration of operator controls with Extension Units
- High degree of investment security
- Fast integration capability

12", 15", 19" and 22" SIMATIC HMI Comfort Panels PRO are available in three different versions, depending on the application:

- For support arm (extendable, round tube): mounting by means of standard 48 mm round tube or Siemens round tube adapter
- For support arm (not extendable, flange on top): mounting by means of basic adapter and flange on top, included in scope of delivery
- For pedestal (extendable, flange below): mounting by means of basic adapter and flange below, included in scope of delivery

More information is available at

<http://siemens.com/simatic-hmi-pro>

System components for fully-enclosed IP65-protected devices

System components for PRO devices are only suitable for SIMATIC HMI/IPC PRO devices.

In combination with SIMATIC HMI PRO basic devices, these components enable easy adaptation to individual customer requirements for operator control and monitoring at the machine level, as well as offering a versatile and attractive solution for cabinet-free visualization and automation.

The following system components are available:

- Fixing elements
 - Adapter sets
 - Basic adapter
 - Round tube adapter
- Extension Units 12" - 22" with operator controls
- Extension components
 - Stainless steel keyboard
 - Tool and keyboard tray

For more detailed information about system components refer to "Industrial Computing" -> "Devices for special requirements" -> "PROtected devices and system components".

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Ordering data

Comfort Panels PRO

TP1200 Comfort PRO

12.1" TFT display,
1 280 x 800 pixels,
16 million colors; touch screen;
1 x MPI/PROFIBUS DP,
1 x PROFINET/Industrial Ethernet
interface with MRP and RT/IRT
support (2 ports);
1 x Ethernet (Gigabit);
2 x SD card slots; 2 x USB

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

Neutral design

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

TP1500 Comfort PRO

15.6" TFT display,
1 366 x 768 pixels,
16 million colors; touch screen;
1 x MPI/PROFIBUS DP,
1 x PROFINET/Industrial Ethernet
Interface with MRP and RT/IRT
support (2 ports);
1 x Ethernet (Gigabit);
2 x SD card slots; 2 x USB

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

Neutral design

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

Article No.

6AV2124-0MC24-0AX0

6AV2124-0MC24-0BX0

6AV2124-0MC24-1AX0

6AV2124-0MC24-0AB0

6AV2124-0MC24-0BB0

6AV2124-0MC24-1AB0

6AV2124-0QC24-0AX0

6AV2124-0QC24-0BX0

6AV2124-0QC24-1AX0

6AV2124-0QC24-0AB0

6AV2124-0QC24-0BB0

6AV2124-0QC24-1AB0

Article No.

6AV2124-0UC24-0AX0

6AV2124-0UC24-0BX0

6AV2124-0UC24-1AX0

6AV2124-0UC24-0AB0

6AV2124-0UC24-0BB0

6AV2124-0UC24-1AB0

TP1900 Comfort PRO

18.5" TFT display,
1 366 x 768 pixels,
16 million colors; touch screen;
1 x MPI/PROFIBUS DP,
1 x PROFINET/Industrial Ethernet
Interface with MRP and RT/IRT
support (2 ports);
1 x Ethernet (Gigabit);
2 x SD card slots; 2 x USB

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

Neutral design

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

TP2200 Comfort PRO

21.5" TFT display,
1 920 x 1 080 pixels,
16 million colors; touch screen;
1 x MPI/PROFIBUS DP,
1 x PROFINET/Industrial Ethernet
Interface with MRP and RT/IRT
support (2 ports);
1 x Ethernet (Gigabit);
2 x SD card slots; 2 x USB

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

Neutral design

- For support arm (not extendable, flange on top)
- For support arm (extendable, round tube) and Extension Unit:
- For pedestal (extendable, flange below)

6AV2124-0XC24-0AX0

6AV2124-0XC24-0BX0

6AV2124-0XC24-1AX0

6AV2124-0XC24-0AB0

6AV2124-0XC24-0BB0

6AV2124-0XC24-1AB0

Technical specifications

Article number	6AV2124-0MC24-0AX0	6AV2124-0MC24-1AX0	6AV2124-0MC24-0BX0	6AV2124-0MC24-0AB0	6AV2124-0MC24-0BB0	6AV2124-0MC24-1AB0
	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral			
General information						
Product type designation	TP1200 Comfort PRO	TP1200 Comfort PRO	TP1200 Comfort PRO	SIMATIC HMI TP1200 Comfort PRO	SIMATIC HMI TP1200 Comfort PRO	SIMATIC HMI TP1200 Comfort PRO
Display						
Design of display	TFT	TFT	TFT	TFT	TFT	TFT
Screen diagonal	12.1 in	12.1 in	12.1 in	12.1 in	12.1 in	12.1 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)						
• Horizontal image resolution	1 280 pixel	1 280 pixel	1 280 pixel	1 280 pixel	1 280 pixel	1 280 pixel
• Vertical image resolution	800 pixel	800 pixel	800 pixel	800 pixel	800 pixel	800 pixel
Backlighting						
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h	80 000 h	80 000 h	80 000 h
Control elements						
Keyboard fonts						
• Function keys						
- Number of function keys	0	0	0			

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0MC24-0AX0	6AV2124-0MC24-1AX0	6AV2124-0MC24-0BX0	6AV2124-0MC24-0AB0	6AV2124-0MC24-0BB0	6AV2124-0MC24-1AB0
	SIMATIC HMI TP1200 Comfort Pro	SIMATIC HMI TP1200 Comfort Pro	SIMATIC HMI TP1200 Comfort Pro	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral
Touch operation						
• Design as touch screen	Yes; Projective-capacitive					
Installation type/mounting						
Mounting	Support arm	Pedestal	Support arm	Support arm	Support arm	Pedestal
Mounting in portrait format possible	No	No	No	No	No	No
Supply voltage						
Rated value (DC)	24 V					
Memory						
Memory available for user data	12 Mbyte					
Type of output						
Acoustics						
• Speaker	Yes	Yes	Yes	Yes	Yes	Yes
Time of day						
Clock						
• Hardware clock (real-time)	Yes	Yes	Yes	Yes	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks					
• synchronizable	Yes	Yes	Yes	Yes	Yes	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 USB interfaces	2; USB 2.0					
Number of SD card slots	2	2	2	2	2	2
Industrial Ethernet						
• Number of ports of the integrated switch	2	2	2	2	2	2
Protocols						
PROFINET	Yes	Yes	Yes	Yes	Yes	Yes
IRT	Yes	Yes	Yes	Yes	Yes	Yes
PROFIBUS	Yes	Yes	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes	Yes	Yes
Redundancy mode						
Media redundancy						
- MRP	Yes	Yes	Yes	Yes	Yes	Yes
Degree and class of protection						
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP65	IP65	IP65	IP65	IP65	IP65
NEMA (front)						
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates						
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
Ambient conditions						
Suited for indoor use	Yes	Yes	Yes	Yes	Yes	Yes
Suited for outdoor use	No	No	No	No	No	No
Ambient temperature during operation						
Operation (vertical installation)						
- For vertical installation, min.	0 °C					
- For vertical installation, max.	45 °C					
Relative humidity						
• Operation, max.	90 %; no condensation					

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0MC24-0AX0	6AV2124-0MC24-1AX0	6AV2124-0MC24-0BX0	6AV2124-0MC24-0AB0	6AV2124-0MC24-0BB0	6AV2124-0MC24-1AB0
	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral			
Configuration						
Configuration software						
• WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher			
Languages						
Online languages						
• Number of online/runtime languages	32	32	32	32	32	32
Functionality under WinCC (TIA Portal)						
Applications/options						
• Web browser	Yes	Yes	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes	Yes	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
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes	Yes	Yes
Task planner						
• time-controlled	Yes	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes	Yes
Message system						
• Bit messages						
- Number of bit messages	4 000	4 000	4 000	4 000	4 000	4 000
• Analog messages						
- Number of analog messages	200	200	200	200	200	200
• Message buffer						
- Number of entries	1 024	1 024	1 024	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes	Yes
Recipe management						
• Number of recipes	300	300	300	300	300	300
• Size of internal recipe memory	2 Mbyte	2 Mbyte	2 Mbyte	2 Mbyte	2 Mbyte	2 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes	Yes	Yes
Variables						
• Number of variables per device	2 048	2 048	2 048	2 048	2 048	2 048
• Number of variables per screen	400	400	400	400	400	400
Images						
• Number of configurable images	500	500	500	500	500	500
Archiving						
• Number of archives per device	50	50	50	50	50	50
Security						
• Number of user groups	50	50	50	50	50	50
• Number of users	50	50	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes	Yes	Yes
Logging through printer						
• Alarms	Yes	Yes	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)						
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0MC24-0AX0	6AV2124-0MC24-1AX0	6AV2124-0MC24-0BX0	6AV2124-0MC24-0AB0	6AV2124-0MC24-0BB0	6AV2124-0MC24-1AB0
	SIMATIC HMI TP1200 Comfort Pro	SIMATIC HMI TP1200 Comfort Pro	SIMATIC HMI TP1200 Comfort Pro	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral	SIMATIC HMI TP1200 Comfort Pro Neutral
Process coupling						
• S7-1200	Yes	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes	Yes
Peripherals/Options						
Printer	Yes	Yes	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB			
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB			
USB memory	Yes	Yes	Yes	Yes	Yes	Yes
Network camera	Yes	Yes	Yes	Yes	Yes	Yes
Mechanics/material						
Enclosure material (front)						
• Plastic	No	No	No	No	No	No
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
• Stainless steel	No	No	No	No	No	No
Dimensions						
Width of the housing front	313 mm	313 mm	313 mm	313 mm	313 mm	313 mm
Height of housing front	225.5 mm; Without basic adapter	225.5 mm; Without basic adapter	225.5 mm; Without basic adapter			
Weights						
Weight (without packaging)	4.9 kg	4.9 kg	4.5 kg	4.9 kg	4.5 kg	4.9 kg

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0QC24-0AX0	6AV2124-0QC24-0BX0	6AV2124-0QC24-1AX0	6AV2124-0QC24-0AB0	6AV2124-0QC24-0BB0	6AV2124-0QC24-1AB0
	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO neutral	SIMATIC HMI TP1500 Comfort PRO neutral	SIMATIC HMI TP1500 Comfort PRO neutral
General information						
Product type designation	TP1500 Comfort PRO					
Display						
Design of display	TFT	TFT	TFT	TFT	TFT	TFT
Screen diagonal	15.6 in					
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)						
• Horizontal image resolution	1 366 pixel					
• Vertical image resolution	768 pixel					
Backlighting						
• MTBF backlighting (at 25 °C)	50 000 h					
Control elements						
Keyboard fonts						
• Function keys						
- Number of function keys	0	0	0		0	0
Touch operation						
• Design as touch screen	Yes; Projective- capacitive					
Installation type/mounting						
Mounting	Support arm	Support arm	Pedestal	Support arm	Support arm	Pedestal
Mounting in portrait format possible	No	No	No	No	No	No
Supply voltage						
Rated value (DC)	24 V					
Memory						
Memory available for user data	24 Mbyte					
Type of output						
Acoustics						
• Speaker	Yes	Yes	Yes	Yes	Yes	Yes
Time of day						
Clock						
• Hardware clock (real-time)	Yes	Yes	Yes	Yes	Yes	Yes
• retentive	Yes; Back-up duration typically 6 weeks					
• synchronizable	Yes	Yes	Yes	Yes	Yes	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 USB interfaces	2; USB 2.0					
Number of SD card slots	2	2	2	2	2	2
Industrial Ethernet						
• Number of ports of the integrated switch	2	2	2	2	2	2
Protocols						
PROFINET	Yes	Yes	Yes	Yes	Yes	Yes
IRT	Yes	Yes	Yes	Yes	Yes	Yes
PROFIBUS	Yes	Yes	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes	Yes	Yes
Redundancy mode						
Media redundancy						
- MRP	Yes	Yes	Yes	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0QC24-0AX0	6AV2124-0QC24-0BX0	6AV2124-0QC24-1AX0	6AV2124-0QC24-0AB0	6AV2124-0QC24-0BB0	6AV2124-0QC24-1AB0
	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO neutral	SIMATIC HMI TP1500 Comfort PRO neutral	SIMATIC HMI TP1500 Comfort PRO neutral
Degree and class of protection						
IP (at the front)	IP65	IP65	IP65	IP65	IP65	IP65
IP (rear)	IP65	IP65	IP65	IP65	IP65	IP65
NEMA (front)						
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes	Yes	Yes
Standards, approvals, certificates						
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
Ambient conditions						
Suited for indoor use	Yes	Yes	Yes	Yes	Yes	Yes
Suited for outdoor use	No	No	No	No	No	No
Ambient temperature during operation						
Operation (vertical installation)						
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	45 °C	45 °C	45 °C	45 °C	45 °C	45 °C
Relative humidity						
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation			
Configuration						
Configuration software						
• WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher			
Languages						
Online languages						
• Number of online/runtime languages	32	32	32	32	32	32
Functionality under WinCC (TIA Portal)						
Applications/options						
• Web browser	Yes	Yes	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes	Yes	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
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes	Yes	Yes
Task planner						
• time-controlled	Yes	Yes	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes	Yes	Yes
Message system						
• Bit messages						
- Number of bit messages	6 000	6 000	6 000	6 000	6 000	6 000
• Analog messages						
- Number of analog messages	200	200	200	200	200	200
• Message buffer						
- Number of entries	1 024	1 024	1 024	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes	Yes	Yes
Recipe management						
• Number of recipes	500	500	500	500	500	500
• Size of internal recipe memory	4 Mbyte	4 Mbyte	4 Mbyte	4 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes	Yes	Yes
Variables						
• Number of variables per device	4 096	4 096	4 096	4 096	4 096	4 096
• Number of variables per screen	400	400	400	400	400	400

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0QC24-0AX0	6AV2124-0QC24-0BX0	6AV2124-0QC24-1AX0	6AV2124-0QC24-0AB0	6AV2124-0QC24-0BB0	6AV2124-0QC24-1AB0
	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO	SIMATIC HMI TP1500 Comfort PRO neutral	SIMATIC HMI TP1500 Comfort PRO neutral	SIMATIC HMI TP1500 Comfort PRO neutral
Images						
• Number of configurable images	750	750	750	750	750	750
Archiving						
• Number of archives per device	50	50	50	50	50	50
Security						
• Number of user groups	50	50	50	50	50	50
• Number of users	50	50	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes	Yes	Yes
Logging through printer						
• Alarms	Yes	Yes	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)						
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes	Yes	Yes
Process coupling						
• S7-1200	Yes	Yes	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes	Yes	Yes
Peripherals/Options						
Printer	Yes	Yes	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB			
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB			
USB memory	Yes	Yes	Yes	Yes	Yes	Yes
Network camera	Yes	Yes	Yes	Yes	Yes	Yes
Mechanics/material						
Enclosure material (front)						
• Plastic	No	No	No	No	No	No
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
• Stainless steel	No	No	No	No	No	No
Dimensions						
Width of the housing front	396 mm	396 mm	396 mm	396 mm	396 mm	396 mm
Height of housing front	225.5 mm; Without basic adapter	225.5 mm; Without basic adapter	225.5 mm; Without basic adapter			
Weights						
Weight (without packaging)	6.3 kg	6.3 kg	6.3 kg	6.3 kg	6.3 kg	6.3 kg

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0XC24-0AX0 SIMATIC HMI TP2200 Comfort PRO	6AV2124-0XC24-0AB0 SIMATIC HMI TP2200 Comfort PRO neutral	6AV2124-0XC24-0BB0 SIMATIC HMI TP2200 Comfort PRO neutral	6AV2124-0XC24-1AB0 SIMATIC HMI TP2200 Comfort PRO neutral
General information				
Product type designation	TP2200 Comfort PRO	TP2200 Comfort PRO	TP2200 Comfort PRO	TP2200 Comfort PRO
Display				
Design of display	TFT	TFT	TFT	TFT
Screen diagonal	21.5 in	21.5 in	21.5 in	21.5 in
Number of colors	16 777 216	16 777 216	16 777 216	16 777 216
Resolution (pixels)				
• Horizontal image resolution	1 920 pixel	1 920 pixel	1 920 pixel	1 920 pixel
• Vertical image resolution	1 080 pixel	1 080 pixel	1 080 pixel	1 080 pixel
Backlighting				
• MTBF backlighting (at 25 °C)	30 000 h	30 000 h	30 000 h	30 000 h
Control elements				
Keyboard fonts				
• Function keys				
- Number of function keys	0	0	0	0
Touch operation				
• Design as touch screen	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive	Yes; Projective-capacitive
Installation type/mounting				
Mounting	Support arm	Support arm	Support arm	Pedestal
Mounting in portrait format possible	No	No	No	No
Supply voltage				
Rated value (DC)	24 V	24 V	24 V	24 V
Memory				
Memory available for user data	24 Mbyte	24 Mbyte	24 Mbyte	24 Mbyte
Type of output				
Acoustics				
• Speaker	Yes	Yes	Yes	Yes
Time of day				
Clock				
• Hardware clock (real-time)	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
• synchronizable	Yes	Yes	Yes	Yes
Interfaces				
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
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
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0	2; USB 2.0
Number of SD card slots	2	2	2	2
Industrial Ethernet				
• Number of ports of the integrated switch	2	2	2	2
Protocols				
PROFINET	Yes	Yes	Yes	Yes
IRT	Yes	Yes	Yes	Yes
PROFIBUS	Yes	Yes	Yes	Yes
MPI	Yes	Yes	Yes	Yes
Redundancy mode				
Media redundancy				
- MRP	Yes	Yes	Yes	Yes
Degree and class of protection				
IP (at the front)	IP65	IP65	IP65	IP65
IP (rear)	IP65	IP65	IP65	IP65
NEMA (front)				
• Enclosure Type 4x at the front	Yes	Yes	Yes	Yes
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0XC24-0AX0 SIMATIC HMI TP2200 Comfort PRO	6AV2124-0XC24-0AB0 SIMATIC HMI TP2200 Comfort PRO neutral	6AV2124-0XC24-0BB0 SIMATIC HMI TP2200 Comfort PRO neutral	6AV2124-0XC24-1AB0 SIMATIC HMI TP2200 Comfort PRO neutral
Ambient conditions				
Suited for indoor use	Yes	Yes	Yes	Yes
Suited for outdoor use	No	No	No	No
Ambient temperature during operation				
Operation (vertical installation)				
- For vertical installation, min.	0 °C	0 °C	0 °C	0 °C
- For vertical installation, max.	45 °C	45 °C	45 °C	45 °C
Relative humidity				
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation	90 %; no condensation
Configuration				
Configuration software				
• WinCC Comfort (TIA Portal)	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher
Languages				
Online languages				
• Number of online/runtime languages	32	32	32	32
Functionality under WinCC (TIA Portal)				
Applications/options				
• Web browser	Yes	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes	Yes
Task planner				
• time-controlled	Yes	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes	Yes
Message system				
• Bit messages				
- Number of bit messages	6 000	6 000	6 000	6 000
• Analog messages				
- Number of analog messages	200	200	200	200
• Message buffer				
- Number of entries	1 024	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes	Yes
- retentive	Yes	Yes	Yes	Yes
Recipe management				
• Number of recipes	500	500	500	500
• Size of internal recipe memory	4 Mbyte	4 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes	Yes
Variables				
• Number of variables per device	4 096	4 096	4 096	4 096
• Number of variables per screen	400	400	400	400
Images				
• Number of configurable images	750	750	750	750
Archiving				
• Number of archives per device	50	50	50	50
Security				
• Number of user groups	50	50	50	50
• Number of users	50	50	50	50
• SIMATIC Logon	Yes	Yes	Yes	Yes
Logging through printer				
• Alarms	Yes	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML

Operator panels

Advanced HMI Panel-based Comfort Panels

Comfort Panels PRO

Technical specifications

Article number	6AV2124-0XC24-0AX0	6AV2124-0XC24-0AB0	6AV2124-0XC24-0BB0	6AV2124-0XC24-1AB0
	SIMATIC HMI TP2200 Comfort PRO	SIMATIC HMI TP2200 Comfort PRO neutral	SIMATIC HMI TP2200 Comfort PRO neutral	SIMATIC HMI TP2200 Comfort PRO neutral
Transfer (upload/download)				
• MPI/PROFIBUS DP	Yes	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes	Yes
Process coupling				
• S7-1200	Yes	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes	Yes
Peripherals/Options				
Printer	Yes	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
USB memory	Yes	Yes	Yes	Yes
Network camera	Yes	Yes	Yes	Yes
Mechanics/material				
Enclosure material (front)				
• Plastic	No	No	No	No
• Aluminum	Yes	Yes	Yes	Yes
• Stainless steel	No	No	No	No
Dimensions				
Width of the housing front	527 mm	527 mm	527 mm	527 mm
Height of housing front	330 mm; Without basic adapter	330 mm; Without basic adapter	330 mm; Without basic adapter	330 mm; Without basic adapter
Weights				
Weight (without packaging)	8.5 kg	8.5 kg	8.5 kg	8.5 kg

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Overview



SIMATIC HMI TP1200 Comfort INOX PCT

SIMATIC HMI TP Comfort Panels INOX and INOX PCT (PCT = Projected Capacitive Touchscreen)

Panels with touch screens (analog-resistive or projective-capacitive) and stainless steel fronts are designed for use in the food, beverages and tobacco industry, the pharmaceutical industry, fine chemicals and in other hygiene areas for machine-level operator control and monitoring.

For this reason, the devices with stainless steel front have been developed in compliance with EN 1672-2 "Food processing machinery – Safety and Hygiene Requirements".

More information is available at

<http://www.siemens.com/comfort-panels-inox>

Ordering data

Article No.

SIMATIC HMI TP Comfort Panel INOX

With analog-resistive touch and front film

SIMATIC HMI TP700 Comfort Panel INOX

With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.

6AV2144-8GC10-0AA0

SIMATIC HMI TP900 Comfort Panel INOX

With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.

6AV2144-8JC10-0AA0

SIMATIC HMI TP1200 Comfort Panel INOX

With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.

6AV2144-8MC10-0AA0

SIMATIC HMI TP Comfort Panel INOX PCT

With projective-capacitive touch and front glass

SIMATIC HMI TP700 Comfort Panel INOX PCT

Stainless steel front, glass pane, capacitive touch, IP69K degree of protection front, 7" widescreen TFT display, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0, WinCC Comfort V15.1

6AV2144-8GC20-0AA0

SIMATIC HMI TP900 Comfort Panel INOX PCT

With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.

6AV2144-8JC20-0AA0

SIMATIC HMI TP1200 Comfort Panel INOX PCT

With accessory pack consisting of: clamping frame, device seal, mounting clamps, connection terminal, as well as installation instructions.

6AV2144-8MC20-0AA0

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Ordering data

Comfort Panels Large Front

SIMATIC HMI TP1200 Comfort Panel INOX with long stainless steel front

12" widescreen TFT display with long stainless steel front, decorative membrane, IP66K degree of protection front, PROFINET interface, MPI/PROFIBUS DP interface, 12 MB configuration memory, Windows CE 6.0 (Microsoft support including safety updates set), configurable as from WinCC Comfort V11 or higher

Article No.

6AV2144-8MC10-0AC0

SIMATIC HMI TP1500 Comfort Panel INOX with long stainless steel front

15" widescreen TFT display with long stainless steel front, decorative membrane, IP66K degree of protection front, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, Windows, CE 2013, configurable as from WinCC Comfort V14 SP1 with HSP or higher

6AV2144-8QC10-0AA2

Article No.

6AV2144-8UC10-0AA1

SIMATIC HMI TP1900 Comfort Panel INOX with long stainless steel front

19" widescreen TFT display with long stainless steel front, decorative membrane, IP66K degree of protection front, PROFINET interface, MPI/PROFIBUS DP interface, 24 MB configuration memory, Windows, CE 2013, configurable as from WinCC Comfort V14 SP1 with HSP or higher

Accessories

See "SIMATIC HMI operator control and monitoring systems" -> "Accessories"

The device seals can be replaced using the corresponding service packages from the accessories.

Technical specifications

Article number	6AV2144-8GC10-0AA0	6AV2144-8JC10-0AA0	6AV2144-8MC10-0AA0
	SIMATIC HMI TP700 COMFORT INOX	SIMATIC HMI TP900 Comfort INOX	SIMATIC HMI TP1200 COMFORT INOX
General information			
Product type designation	TP700 Comfort INOX	TP900 Comfort INOX	TP1200 Comfort INOX
Display			
Design of display	TFT	TFT	TFT
Screen diagonal	7 in	9 in	12.1 in
Number of colors	16 777 216	16 777 216	16 777 216
Resolution (pixels)			
• Horizontal image resolution	800 pixel	800 pixel	1 280 pixel
• Vertical image resolution	480 pixel	480 pixel	800 pixel
Backlighting			
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h
Control elements			
Keyboard fonts			
• Function keys			
- Number of function keys	0	0	0
Touch operation			
• Design as touch screen	Yes; capacitive	Yes; capacitive	Yes; capacitive
Installation type/mounting			
Mounting in portrait format possible	Yes	Yes	Yes
Supply voltage			
Rated value (DC)	24 V	24 V	24 V
Memory			
Memory available for user data	12 Mbyte	12 Mbyte	12 Mbyte
Type of output			
Acoustics			
• Speaker	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC10-0AA0 SIMATIC HMI TP700 COMFORT INOX	6AV2144-8JC10-0AA0 SIMATIC HMI TP900 Comfort INOX	6AV2144-8MC10-0AA0 SIMATIC HMI TP1200 COMFORT INOX
Time of day			
Clock			
• Hardware clock (real-time)	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
• synchronizable	Yes	Yes	Yes
Interfaces			
Number of industrial Ethernet interfaces	1; 2 ports (switch)	1; 2 ports (switch)	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0
• USB Mini B	1; 5-pole	1; 5-pole	1; 5-pole
Number of SD card slots	2	2	2
Industrial Ethernet			
• Number of ports of the integrated switch	2	2	2
Protocols			
PROFINET	Yes	Yes	Yes
IRT	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12
PROFIBUS	Yes	Yes	Yes
MPI	Yes	Yes	Yes
Redundancy mode			
Media redundancy			
- MRP	Yes; As of WinCC V12	Yes; As of WinCC V12	Yes; As of WinCC V12
Degree and class of protection			
IP (at the front)	IP66K	IP66K	IP66K
IP (rear)	IP20	IP20	IP20
NEMA (front)			
• Enclosure Type 4x at the front	Yes; indoor use only	Yes; indoor use only	Yes; indoor use only
Standards, approvals, certificates			
CE mark	Yes	Yes	Yes
cULus	Yes	Yes	Yes
FM approval	Yes		Yes
RCM (formerly C-TICK)	Yes	Yes	Yes
KC approval	Yes		Yes
EAC (formerly Gost-R)	Yes	Yes	Yes
Use in hazardous areas			
• ATEX Zone 2	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes
• FM Class I Division 2	Yes	No	Yes
Marine approval			
• Germanischer Lloyd (GL)	No	No	No
• American Bureau of Shipping (ABS)	No	No	No
• Bureau Veritas (BV)	No	No	No
• Det Norske Veritas (DNV)	No	No	No
• Korean Register of Shipping (KRS)			No
• Lloyds Register of Shipping (LRS)	No	No	No
• Nippon Kaiji Kyokai (Class NK)	No	No	No
• Polski Rejestr Statkow (PRS)	No	No	No
Ambient conditions			
Ambient temperature during operation			
Operation (vertical installation)			
- For vertical installation, min.	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C	50 °C	50 °C
Relative humidity			
• Operation, max.	90 %; no condensation	90 %; no condensation	80 %; no condensation

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC10-0AA0 SIMATIC HMI TP700 COMFORT INOX	6AV2144-8JC10-0AA0 SIMATIC HMI TP900 Comfort INOX	6AV2144-8MC10-0AA0 SIMATIC HMI TP1200 COMFORT INOX
Configuration			
Configuration software			
• WinCC Comfort (TIA Portal)	Yes; from V11	Yes; from V11	Yes; from V11
Languages			
Online languages			
• Number of online/runtime languages	32	32	32
Functionality under WinCC (TIA Portal)			
Applications/options			
• Web browser	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes
Task planner			
• time-controlled	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes
Message system			
• Bit messages			
- Number of bit messages	4 000	4 000	4 000
• Analog messages			
- Number of analog messages	200	200	200
• Message buffer			
- Number of entries	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes
- retentive	Yes	Yes	Yes
Recipe management			
• Number of recipes	300	300	300
• Size of internal recipe memory	2 Mbyte	2 Mbyte	2 Mbyte
• Recipe memory expandable	Yes	Yes	Yes
Variables			
• Number of variables per device	2 048	2 048	2 048
• Number of variables per screen	400	400	400
Images			
• Number of configurable images	500	500	500
Archiving			
• Number of archives per device	50	50	50
Security			
• Number of user groups	50	50	50
• Number of users	50	50	50
• SIMATIC Logon	Yes	Yes	Yes
Logging through printer			
• Alarms	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)			
• MPI/PROFIBUS DP	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC10-0AA0 SIMATIC HMI TP700 COMFORT INOX	6AV2144-8JC10-0AA0 SIMATIC HMI TP900 Comfort INOX	6AV2144-8MC10-0AA0 SIMATIC HMI TP1200 COMFORT INOX
Process coupling			
• S7-1200	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes
Peripherals/Options			
Printer	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
USB memory	Yes	Yes	Yes
Network camera	Yes	Yes	Yes
Mechanics/material			
Enclosure material (front)			
• Plastic	No	No	No
• Aluminum	No	No	No
• Stainless steel	Yes	Yes	Yes
Dimensions			
Width of the housing front	214 mm	274 mm	330 mm
Height of housing front	158 mm	190 mm	241 mm
Mounting cutout, width	198 mm	250 mm	310 mm
Mounting cutout, height	142 mm	166 mm	221 mm
Overall depth	64.215 mm	65 mm	67 mm
Weights			
Weight (without packaging)	1.9 kg	2.5 kg	3.6 kg

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC20-0AA0 SIMATIC HMI TP700 Comfort INOX PCT	6AV2144-8JC20-0AA0 SIMATIC HMI TP900 COMFORT INOX PCT	6AV2144-8MC20-0AA0 SIMATIC HMI TP1200 COMFORT INOX PCT
General information			
Product type designation	TP700 Comfort INOX PCT	TP900 Comfort INOX PCT	TP1200 Comfort INOX PCT
Display			
Design of display	TFT	TFT	TFT
Screen diagonal	7 in	9 in	12.1 in
Number of colors	16 777 216	16 777 216	16 777 216
Resolution (pixels)			
• Horizontal image resolution	800 pixel	800 pixel	1 280 pixel
• Vertical image resolution	480 pixel	480 pixel	800 pixel
Backlighting			
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	80 000 h
Control elements			
Keyboard fonts			
• Function keys			
- Number of function keys	0	0	0
Touch operation			
• Design as touch screen	Yes; capacitive	Yes; capacitive	Yes; capacitive
• Design as multi-touch screen	No	No	No
• Monitor keyboard	Yes	Yes	Yes
Installation type/mounting			
Mounting in portrait format possible	No	Yes	Yes
Supply voltage			
Rated value (DC)	24 V	24 V	24 V
Memory			
Memory available for user data	12 Mbyte	12 Mbyte	12 Mbyte
Type of output			
Acoustics			
• Speaker	Yes	Yes	Yes
Time of day			
Clock			
• Hardware clock (real-time)	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
• synchronizable	Yes	Yes	Yes
Interfaces			
Number of industrial Ethernet interfaces	1; 2 ports (switch)	1; 2 ports (switch)	1; 2 ports (switch)
Number of RS 485 interfaces	1; RS 422 / 485 combined	1; RS 422 / 485 combined	1; RS 422 / 485 combined
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0
• USB Mini B	1; 5-pole	1; 5-pole	1; 5-pole
Number of SD card slots	2	2	2
Industrial Ethernet			
• Number of ports of the integrated switch	2	2	2
Protocols			
PROFINET	Yes	Yes	Yes
IRT	Yes; As of WinCC V15.1	Yes; As of WinCC V15	Yes; As of WinCC V15
PROFIBUS	Yes	Yes	Yes
MPI	Yes	Yes	Yes
Redundancy mode			
Media redundancy			
- MRP	Yes; As of WinCC V15.1	Yes; As of WinCC V15	Yes; As of WinCC V15

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC20-0AA0 SIMATIC HMI TP700 Comfort INOX PCT	6AV2144-8JC20-0AA0 SIMATIC HMI TP900 COMFORT INOX PCT	6AV2144-8MC20-0AA0 SIMATIC HMI TP1200 COMFORT INOX PCT
Degree and class of protection			
IP (at the front)	IP66 / IPx6K and IP69 / IPx9K	IP66 / IPx6K and IP69 / IPx9K	IP66 / IPx6K and IP69 / IPx9K
IP (rear)	IP20	IP20	IP20
NEMA (front)			NEMA 4, NEMA 12 (when installed)
• Enclosure Type 4x at the front		No	Yes
• Enclosure Type 12 at the front	No	No	Yes
Standards, approvals, certificates			
CE mark	Yes	Yes	Yes
cULus	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes
KC approval	No	No	No
EAC (formerly Gost-R)	Yes	Yes	Yes
Use in hazardous areas			
• ATEX Zone 2	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes
• cULus Class II Division 2	No	No	No
• FM Class I Division 2	No	No	No
• FM Class II Division 2	No	No	No
Ambient conditions			
Suited for indoor use	Yes	Yes	Yes
Suited for outdoor use	No	No	No
Ambient temperature during operation			
Operation (vertical installation)			
- For vertical installation, min.	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C; (55 °C, see entry ID: 64847814)	50 °C; (55 °C, see entry ID: 64847814)	50 °C
Altitude during operation relating to sea level			
• Installation altitude above sea level, max.	2 000 m	2 000 m	2 000 m
Relative humidity			
• Operation, max.	90 %; no condensation	90 %; no condensation	90 %; no condensation
Configuration			
Configuration software			
• WinCC Comfort (TIA Portal)	Yes; From WinCC V15.1 HSP	Yes; As of WinCC V15	Yes; As of WinCC V15
Languages			
Online languages			
• Number of online/runtime languages	32	32	32

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC20-0AA0 SIMATIC HMI TP700 Comfort INOX PCT	6AV2144-8JC20-0AA0 SIMATIC HMI TP900 COMFORT INOX PCT	6AV2144-8MC20-0AA0 SIMATIC HMI TP1200 COMFORT INOX PCT
Functionality under WinCC (TIA Portal)			
Applications/options	Internet Explorer, PDF/Word/Excel Viewer, Sm@rtService, Sm@rtAccess, ProAgent	Internet Explorer, PDF/Word/Excel Viewer, Sm@rtService, Sm@rtAccess, ProAgent	Internet Explorer, PDF/Word/Excel Viewer, Sm@rtService, Sm@rtAccess, ProAgent
• Web browser	Yes	Yes	Yes
• Pocket Word	Yes; Viewer	Yes; Viewer	Yes; Viewer
• Pocket Excel	Yes; Viewer	Yes; Viewer	Yes; Viewer
• PDF Viewer	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes
Task planner	Yes	Yes	Yes
• time-controlled	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes
Message system			
• Bit messages			
- Number of bit messages	4 000	4 000	4 000
• Analog messages			
- Number of analog messages	200	200	200
• Message buffer			
- Number of entries	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes
- retentive	Yes	Yes	Yes
Recipe management			
• Number of recipes	300	300	300
• Size of internal recipe memory	2 Mbyte	2 Mbyte	2 Mbyte
• Recipe memory expandable	Yes	Yes	Yes
Variables			
• Number of variables per device	2 048	2 048	2 048
• Number of variables per screen	400	400	400
Images			
• Number of configurable images	500	500	500
Archiving			
• Number of archives per device	50	50	50
Security			
• Number of user groups	50	50	50
• Number of users	50	50	50
• SIMATIC Logon	Yes	Yes	Yes
Logging through printer			
• Alarms	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes
• Electronic print to file	No	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)			
• MPI/PROFIBUS DP	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8GC20-0AA0 SIMATIC HMI TP700 Comfort INOX PCT	6AV2144-8JC20-0AA0 SIMATIC HMI TP900 COMFORT INOX PCT	6AV2144-8MC20-0AA0 SIMATIC HMI TP1200 COMFORT INOX PCT
Process coupling			
• S7-1200	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes
Peripherals/Options			
Printer	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
USB memory	Yes	Yes	Yes
Network camera	Yes	Yes	Yes
Accessories			
Further accessories are available	Yes; Service Pack (seal, mounting clips, clamping frame, power supply connector)	Yes; Service Pack (seal, mounting clips, clamping frame, power supply connector)	Yes; Service Pack (seal, mounting clips, clamping frame, power supply connector)
Mechanics/material			
Enclosure material (front)			
• Plastic	No	No	No
• Aluminum	No	No	No
• Stainless steel	Yes	Yes	Yes
Dimensions			
Width of the housing front	214 mm	274 mm	330 mm
Height of housing front	158 mm	190 mm	241 mm
Mounting cutout, width	197 mm	251 mm	310 mm
Mounting cutout, height	141 mm	166 mm	221 mm
Overall depth	66 mm	66 mm	65 mm
Weights			
Weight (without packaging)	2 kg	2.9 kg	4.2 kg

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8MC10-0AC0 SIMATIC HMI TP1200 COMFORT INOX LF	6AV2144-8QC10-0AA2 SIMATIC HMI TP1500 Comfort INOX	6AV2144-8UC10-0AA1 SIMATIC HMI TP1900 Comfort INOX
General information			
Product type designation	TP1200 Comfort INOX LF	TP1500 Comfort INOX	TP1900 Comfort INOX
Display			
Design of display	TFT	TFT	TFT
Screen diagonal	12.1 in	15.4 in	18.5 in
Number of colors	16 777 216	16 777 216	16 777 216
Resolution (pixels)			
• Horizontal image resolution	1 280 pixel	1 280 pixel	1 366 pixel
• Vertical image resolution	800 pixel	800 pixel	768 pixel
Backlighting			
• MTBF backlighting (at 25 °C)	80 000 h	80 000 h	50 000 h
Control elements			
Keyboard fonts			
• Function keys			
- Number of function keys	0	0	0
Touch operation			
• Design as touch screen	Yes; capacitive	Yes; Analog-resistive	Yes; capacitive
Installation type/mounting			
Mounting in portrait format possible	Yes	Yes	Yes
Supply voltage			
Rated value (DC)	24 V	24 V	24 V
Memory			
Memory available for user data	12 Mbyte	24 Mbyte	24 Mbyte
Type of output			
Acoustics			
• Speaker	Yes	Yes	Yes
Time of day			
Clock			
• Hardware clock (real-time)	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
• synchronizable	Yes	Yes	Yes
Interfaces			
Number of industrial Ethernet interfaces	1; 2 ports (switch)	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
Number of USB interfaces	2; USB 2.0	2; USB 2.0	2; USB 2.0
• USB Mini B	1; 5-pole		
Number of SD card slots	2	2	2
Industrial Ethernet			
• Number of ports of the integrated switch	2	2	2
Protocols			
PROFINET	Yes	Yes	Yes
IRT	Yes; As of WinCC V12	Yes	Yes
PROFIBUS	Yes	Yes	Yes
MPI	Yes	Yes	Yes
Redundancy mode			
Media redundancy			
- MRP	Yes; As of WinCC V12	Yes	Yes
Degree and class of protection			
IP (at the front)	IP66K	IP66K	IP66K
IP (rear)	IP20	IP20	IP20
NEMA (front)			
• Enclosure Type 4x at the front	Yes; indoor use only	Yes; indoor use only	Yes; indoor use only

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8MC10-0AC0 SIMATIC HMI TP1200 COMFORT INOX LF	6AV2144-8QC10-0AA2 SIMATIC HMI TP1500 Comfort INOX	6AV2144-8UC10-0AA1 SIMATIC HMI TP1900 Comfort INOX
Standards, approvals, certificates			
CE mark	Yes	Yes	Yes
cULus	Yes	Yes	Yes
FM approval	No		
RCM (formerly C-TICK)	No	Yes	Yes
KC approval	No	Yes	Yes
EAC (formerly Gost-R)	Yes	Yes	Yes
Use in hazardous areas			
• ATEX Zone 2	Yes	Yes	Yes
• ATEX Zone 22	Yes	Yes	Yes
• IECEx Zone 2	Yes	Yes	Yes
• IECEx Zone 22	Yes	Yes	Yes
• cULus Class I Zone 2, Division 2	Yes	Yes	Yes
• FM Class I Division 2	No	No	No
Marine approval			
• Germanischer Lloyd (GL)	No	No	No; In application process
• American Bureau of Shipping (ABS)	No	No	No; in preparation
• Bureau Veritas (BV)	No	No	No; in preparation
• Det Norske Veritas (DNV)	No	No	No; in preparation
• Korean Register of Shipping (KRS)	No	No	No; in preparation
• Lloyds Register of Shipping (LRS)	No	No	No; in preparation
• Nippon Kaiji Kyokai (Class NK)	No	No	No; in preparation
• Polski Rejestr Statkow (PRS)	No	No	No; in preparation
• Chinese Classification Society (CCS)		No	No; in preparation
Ambient conditions			
Suited for indoor use		Yes	Yes
Suited for outdoor use		No	No
Ambient temperature during operation			
Operation (vertical installation)			
- For vertical installation, min.	0 °C	0 °C	0 °C
- For vertical installation, max.	50 °C	50 °C	45 °C
Relative humidity			
• Operation, max.	80 %; no condensation	80 %; no condensation	70 %; no condensation
Configuration			
Configuration software			
• WinCC Comfort (TIA Portal)	Yes; from V11	Yes; V14 SP1 HSP and higher	Yes; V14 SP1 HSP and higher
Languages			
Online languages			
• Number of online/runtime languages	32	32	32

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8MC10-0AC0 SIMATIC HMI TP1200 COMFORT INOX LF	6AV2144-8QC10-0AA2 SIMATIC HMI TP1500 Comfort INOX	6AV2144-8UC10-0AA1 SIMATIC HMI TP1900 Comfort INOX
Functionality under WinCC (TIA Portal)			
Applications/options			
• Web browser	Yes	Yes	Yes
• Pocket Word	Yes	Yes	Yes
• Pocket Excel	Yes	Yes	Yes
• PDF Viewer	Yes	Yes	Yes
• Media Player	Yes	Yes	Yes
• SIMATIC WinCC Sm@rtServer	Yes	Yes	Yes
• SIMATIC WinCC Audit	Yes	Yes	Yes
Number of Visual Basic Scripts	Yes	Yes	Yes
Task planner			
• time-controlled	Yes	Yes	Yes
• task-controlled	Yes	Yes	Yes
Message system			
• Bit messages			
- Number of bit messages	4 000	6 000	6 000
• Analog messages			
- Number of analog messages	200	200	200
• Message buffer			
- Number of entries	1 024	1 024	1 024
- Circulating buffer	Yes	Yes	Yes
- retentive	Yes	Yes	Yes
Recipe management			
• Number of recipes	300	500	500
• Size of internal recipe memory	2 Mbyte	4 Mbyte	4 Mbyte
• Recipe memory expandable	Yes	Yes	Yes
Variables			
• Number of variables per device	2 048	4 096	4 096
• Number of variables per screen	400	400	400
Images			
• Number of configurable images	500	750	750
Archiving			
• Number of archives per device	50	50	50
Security			
• Number of user groups	50	50	50
• Number of users	50	50	50
• SIMATIC Logon	Yes	Yes	Yes
Logging through printer			
• Alarms	Yes	Yes	Yes
• Report (shift log)	Yes	Yes	Yes
• Hardcopy	Yes	Yes	Yes
• Electronic print to file	Yes; PDF, HTML	Yes; PDF, HTML	Yes; PDF, HTML
Transfer (upload/download)			
• MPI/PROFIBUS DP	Yes	Yes	Yes
• Ethernet	Yes	Yes	Yes

Operator panels

Advanced HMI Panel-based
Comfort Panels

Comfort Panels INOX and INOX PCT

Technical specifications

Article number	6AV2144-8MC10-0AC0 SIMATIC HMI TP1200 COMFORT INOX LF	6AV2144-8QC10-0AA2 SIMATIC HMI TP1500 Comfort INOX	6AV2144-8UC10-0AA1 SIMATIC HMI TP1900 Comfort INOX
Process coupling			
• S7-1200	Yes	Yes	Yes
• S7-1500	Yes	Yes	Yes
• S7-200	Yes	Yes	Yes
• S7-300/400	Yes	Yes	Yes
• LOGO!	Yes	Yes	Yes
• WinAC	Yes	Yes	Yes
• SIMOTION	Yes	Yes	Yes
• Allen Bradley (EtherNet/IP)	Yes	Yes	Yes
• Allen Bradley (DF1)	Yes	Yes	Yes
• Mitsubishi (MC TCP/IP)	Yes	Yes	Yes
• Mitsubishi (FX)	Yes	Yes	Yes
• OMRON (FINS TCP)	No	No	No
• OMRON (LINK/Multilink)	Yes	Yes	Yes
• Modicon (Modbus TCP/IP)	Yes	Yes	Yes
• Modicon (Modbus)	Yes	Yes	Yes
• OPC UA Client	Yes	Yes	Yes
• OPC UA Server	Yes	Yes	Yes
Peripherals/Options			
Printer	Yes	Yes	Yes
SIMATIC HMI MM memory card: Multi Media Card	Yes; Up to 128 MB	Yes; Up to 128 MB	Yes; Up to 128 MB
SIMATIC HMI SD memory card: Secure Digital memory card	Yes; Up to 2 GB	Yes; Up to 2 GB	Yes; Up to 2 GB
USB memory	Yes	Yes	Yes
Network camera	Yes	Yes	Yes
Mechanics/material			
Enclosure material (front)			
• Plastic	No	No	No
• Aluminum	No	No	No
• Stainless steel	Yes	Yes	Yes
Dimensions			
Width of the housing front	330 mm	415 mm	483 mm
Height of housing front	269 mm	310 mm	337 mm
Mounting cutout, width	310 mm	396 mm	465 mm
Mounting cutout, height	248 mm	291 mm	319 mm
Overall depth	67 mm	74 mm	73 mm
Weights			
Weight (without packaging)	4.2 kg	5.9 kg	7.9 kg

More information

Customer-specific modifications

- Customized design (logo, type designation and background color)
- Protection against condensation and corrosive gases

More information is available on the Internet at

<http://www.siemens.com/comfort-panels-inox>

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices

Overview

System components for fully-enclosed IP65-protected devices

System components for PRO devices are only suitable for SIMATIC HMI/IPC PRO devices. In combination with the SIMATIC HMI PRO basic devices, these components enable easy adaptation to individual customer requirements for operator control and monitoring at the machine level, as well as offering a versatile and attractive cabinet-free solution for visualization and automation.

The following system components are available:

- Fixing elements
 - Adapter sets
 - Basic adapters
 - Round tube adapter
- Extension Units and operator controls
- Extension components
 - Stainless steel keyboard
 - Tool and keyboard tray
 - USB interface for PRO devices
 - Handles for PRO devices

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Fixing elements

Overview

Fixing elements

Adapter sets, basic adapter, round tube adapter and round tube cap

The fixing elements are required for connecting the SIMATIC HMI PRO device with the support arm head of the respective support arm system.

Since the support arm head is connected directly to the device, there is complete flexibility in the choice of support arm components.

Adapter sets are available for the VESA 75 and VESA 100 systems.

Further adapter sets can be obtained directly from the respective support arm manufacturers:

- Bernstein
- Rittal
- Rose
- Haseke and
- Rolec

For the 4:3 and 16:9 variants, basic adapters are available according to design:

- The basic adapter is included in the scope of delivery of the device for 4:3 systems (dark gray)
- The basic adapter is included in the scope of delivery of the device for 16:9 systems (silver) (the basic adapter is included in the scope of delivery as a matter of principle. It is excluded only from the version "prepared for support arm and extension components", because connection is made via a round tube.)

For the version "prepared for support arm and extension components" of the 16:9 PRO devices, installation can alternatively take place with the Siemens round tube adapter or with a standard 48 mm diameter round tube. The round tube adapter enables the transition from a round tube connection to the familiar mechanical interface of the basic adapter. This means you can combine different versions of the PRO devices with the same support arm or pedestal system.

Ordering data

Article No.

VESA 100 adapter set¹⁾	6AV7674-0KD00-0AA0
VESA 75 adapter set	6AV7674-0KE00-0AA0
Basic adapter for 16:9 systems	6AV7674-1KA00-0AA0
Spare part (silver, included in the scope of delivery of the device)	
Round tube adapter for 16:9 systems	6AV7674-1KF00-0AA0
Suitable for 16:9 PRO devices of the type "prepared for support arm and extension components (round tube connection)"	
VESA 100/75 round tube adapter	6AV6881-0AD56-0AA0
For SIMATIC PRO devices. Can be mounted with a 100 mm (M6) or 75 mm (M6) VESA. IP20 cable entry directly in the round tube adapter. Suitable for all common support arm systems with corresponding VESA coupling, load capacity and hole spacing. More information is available in the technical specifications.	
Round tube cap for PRO devices	6AV7674-1LB40-0AA0
Replacement adapter for PRO devices	6AV7674-1LB50-0AA0

¹⁾ The VESA 100 adapter set cannot be used in combination with the 19" Flat Panel PRO.

Note:

The 48 mm internal diameter of the support arm tubes is not suitable for feeding through the standard DVI-D cable.

Scope of delivery:

- One adapter set or basic adapter, round tube adapter
- Fittings for mounting

Technical specifications

Article number	6AV7674-0KD00-0AA0	6AV7674-0KE00-0AA0
	Adapter Set VESA 100 Fully enclosed HMI	Adapter Set VESA 75 f. Fully Enclose HMI
General information		
Product type designation	Adapter set VESA 100	Adapter set VESA 75
Degree and class of protection		
IP (all-round)	IP65	IP65
Ambient conditions		
Suited for indoor use	Yes	Yes
Suited for outdoor use	No	No
Ambient temperature during operation		
• min.	0 °C	0 °C
• max.	55 °C	55 °C
Relative humidity		
• Operation, max.	90 %	90 %
• Condensation permissible	No	No
Scope of supply		
Delivery quantity in pieces	1	1
Other		
Merchandise	No	No
Manufacturer name	SIEMENS AG	SIEMENS AG
Manufacturer's address	Gleiwitzerstraße 555, 90475 Nuremberg, Germany	Gleiwitzerstraße 555, 90475 Nuremberg, Germany
Target devices	Not suitable for 19" 4:3 devices	Not suitable for 19" 4:3 devices

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Fixing elements

Technical specifications

Article number	6AV7674-1KA00-0AA0 Basic Adapter for HMI/IPC Pro (16:9)
General information	
Product type designation	Basic adapter
Other	
Merchandise	Yes
Manufacturer name	SIEMENS AG
Manufacturer's address	Gleiwitzerstraße 555, 90475 Nuremberg, Germany
Article number	6AV7674-1KF00-0AA0 Flange Mount for Pro Devices
General information	
Product type designation	Flange mount
Installation type/mounting	
Mounting	for the transition from a size 48 round tube to a flange plate (compatible with basic adapter interface)
Degree and class of protection	
IP (all-round)	IP65 when installed
Mechanics/material	
Material	Steel, powder coating in RAL 9006
Dimensions	
Width	76.3 mm; Width of flange plate, distance between holes 40 mm
Height	168 mm; Round tube and flange plate
Depth	80 mm; Depth of flange plate, distance between holes 63 mm
Enclosure diameter	48.3 mm; Round tube in interface area
Weights	
Weight (without packaging)	900 g
Scope of supply	
Delivery quantity in pieces	1
Other	
Target devices	Suitable for PRO devices, prepared for support arm and extension components (round tube connection)

Article number	6AV6881-0AD56-0AA0 Flange mount adapter VESA 100/75
General information	
Product type designation	VESA 100/75 flange adapter
Installation type/mounting	
Mounting	VESA 100 mm / 75 mm with M6 thread
Mounting type	Support arm with VESA 100 mm or 75 mm
Degree and class of protection	
IP (at the front)	IP20 (depending on mounting)
Ambient conditions	
Suited for indoor use	Yes
Suited for outdoor use	No
Ambient temperature during operation	
• min.	0 °C
• max.	55 °C
Relative humidity	
• Operation, max.	90 %
• Condensation permissible	No
Mechanics/material	
Material	steel
• Aluminum	No
• Sheet steel	Yes; 11SMnPb30 + C
• PET	No
Enclosure material (rear)	sheet metal S235 powder-coated
Dimensions	
Width	135 mm
Height	120 mm
Depth	67.5 mm
Scope of supply	
Delivery quantity in pieces	1; VESA round tube adapter 100/75 suitable for PRO devices, max. IP20 attainable
Components included	Without additional accessories
Other	
Merchandise	Yes; VESA 100/75 PRO adapter
Manufacturer name	QUERUM products UG
Manufacturer's address	Wirtsstr. 23, 85110 Kipfenberg-Böhming, Germany
contacting the manufacturer	email: querumproducts@web.de
Target devices	Not suitable for 19" 4:3 devices
Note:	Max. load 35 kg, for expandable support arm mounting

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Fixing elements

Technical specifications

Article number	6AV7674-1LB40-0AA0 Round tube plug for PRO devices	6AV7674-1LB50-0AA0 Exchange adapter for PRO devices
General information		
Product type designation	round tube cap	replacement adapter
Degree and class of protection		
IP (all-round)	IP65 when installed	IP65 when installed
Mechanics/material		
Material		
• Aluminum	Yes; Powder-coated, RAL 9006	Yes; Powder-coated, RAL 9006
Weights		
Weight (without packaging)	0.24 kg	0.34 kg
Scope of supply		
Delivery quantity in pieces	1	1
Components included	Round tube plug for PRO devices	Screws for attachment
Other		
Target devices	PRO devices for support arm (extendable, round tube)	PRO devices for support arm (extendable, round tube) and pedestal (extendable, flange below)

More information

More information is available on the internet at

<https://www.siemens.com/ip65-hmi-devices>.

Note:

Do you need a specific modification or extension to the products described here? Under "Customized products" you can find information about additional and generally available products for the sector, and about the possibilities for customized modification and adaptation.

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Overview

Extension Units

Extension Units with 12" to 22", as well as a 24" portrait version for SIMATIC HMI PRO devices, are part of the system components for fully-enclosed IP65-protected devices. They enable the expansion of the operating options on site by the installation of various operator controls. Communication can take place via PROFINET, PROFIsafe or conventional wiring.

SIMATIC Extension Unit (BTO & Advanced)

With Customized Automation, Extension Units are built to specific customer requirements and given their own customer MLFB. BTO (built to order).

Extension Units for 16:9 PRO devices



Extension Units for the 16:9 PRO devices are suitable for the flexible installation of various operator controls that extend the operating options on site easily and on an individual basis. They are coordinated with the design of the 16:9 PRO devices and can easily be mounted below the device by the customers themselves.

Additionally, the Extension Unit box is available for the flexible installation of lower operator controls.

Ordering data

Article No.

Extension Units for 16:9 PRO devices

Extension Unit Hardwired

- 12"
- 15"
- 19"
- 22"
- 24"
- 24" portrait

6AV7674-1LA31-0AA0
6AV7674-1LA41-0AA0
6AV7674-1LA51-0AA0
6AV7674-1LA61-0AA0
6AV7674-1LA71-0AA0
6AV7674-1LA81-0AA0

Extension Unit PROFINET

- 12"
- 15"
- 19"
- 22"
- 24"
- 24" portrait

6AV7674-1LA32-0AA0
6AV7674-1LA42-0AA0
6AV7674-1LA52-0AA0
6AV7674-1LA62-0AA0
6AV7674-1LA72-0AA0
6AV7674-1LA82-0AA0

Extension Unit PROFIsafe

- 12"
- 15"
- 19"
- 22"
- 24"
- 24" portrait

6AV7674-1LA33-0AA0
6AV7674-1LA43-0AA0
6AV7674-1LA53-0AA0
6AV7674-1LA63-0AA0
6AV7674-1LA73-0AA0
6AV7674-1LA83-0AA0

Extension Unit box

- 12"
- 15"
- 19"
- 22"
- 24"
- 24" portrait

6AV7674-1LA30-0AA0
6AV7674-1LA40-0AA0
6AV7674-1LA50-0AA0
6AV7674-1LA60-0AA0
6AV7674-1LA70-0AA0
6AV7674-1LA80-0AA0

Extension Unit Advanced PROFINET ¹⁾

- 12" KP12 PN
- 15" KP12 PN
- 19" KP12 PN
- 22" KP12 PN
- 12" KP24 PN
- 15" KP36 PN
- 19" KP36 PN
- 22" KP48 PN

6AV2185-8CE01-0AA0
6AV2185-8DE01-0AA0
6AV2185-8EE01-0AA0
6AV2185-8FE01-0AA0
6AV2185-8CE08-0AA0
6AV2185-8DE08-0AA0
6AV2185-8EE08-0AA0
6AV2185-8FE08-0AA0

Extension Unit Advanced PROFIsafe ¹⁾

- 12" KP12F PN
- 15" KP12F PN
- 19" KP12F PN
- 22" KP12F PN

6AV2185-8CF01-0AA0
6AV2185-8DF01-0AA0
6AV2185-8EF01-0AA0
6AV2185-8FF01-0AA0

¹⁾ Max. two Extension Units possible as extension

Scope of delivery

Extension Units Hardwired:

- 1 Extension Unit
- 1 plug connector, 16-pin, for interface X12
- 1 plug connector, 12-pin, for interface X11
- 1 plug connector, 8-pin, for interface X10
- 1 power supply terminal for 24 V DC
- 4 bolts M4x20 for mounting the Extension Unit on the SIMATIC PRO device

PROFINET Extension Units:

- 1 Extension Unit
- 1 plug connector, 8-pin, for interface X10
- 1 power supply connector for 24 V DC
- 4 bolts M4x20 for mounting the Extension Unit on the SIMATIC PRO device

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Ordering data	Article No.	Article No.
Operator controls		
EMERGENCY STOP button	6AV7674-1MA00-0AA0	6AV7674-1ME50-0AA0
Illuminated pushbutton		
• One NO contact	6AV7674-1MB00-0AA0	6AV7674-1MF00-0AA0
• One NO contact and one NC contact	6AV7674-1MG00-0AA0	
Pushbutton Safety	6AV7674-1MG50-0AA0	
Indicator light	6AV7674-1MC00-0AA0	
Selector switch	6AV7674-1MD00-0AA0	
Keypad	6AV7674-1ME00-0AA0	
		6AV7674-1LB30-0AA0
		6AV7674-1LB20-0AA0

2

Technical specifications

Article number	6AV7674-1LA31-0AA0	6AV7674-1LA41-0AA0	6AV7674-1LA51-0AA0	6AV7674-1LA61-0AA0	6AV7674-1LA71-0AA0	6AV7674-1LA81-0AA0
	Extension Unit 12" hardwired	Extension Unit 15" hardwired	Extension Unit 19" hardwired	Extension Unit 22" hardwired	Extension Unit 24" hardwired	Extension Unit 24" Portrait hardwired
General information						
Product type designation	Extension Unit 12" Hardwired	Extension Unit 15" hardwired	Extension Unit 19" hardwired	Extension Unit 22" hardwired	Extension Unit 24" hardwired	Extension Unit 24" Portrait hardwired
Control elements						
Connection type						
• Connection type of the LED module	12-pin connector	12-pin connector	12-pin connector	12-pin connector	12-pin connector	12-pin connector
• Connection type of the contacts of the control elements	16-pin connector	16-pin connector	16-pin connector	16-pin connector	16-pin connector	16-pin connector
• Connection type of the safety-related contacts (emergency stop)	8-pin connector	8-pin connector	8-pin connector	8-pin connector	8-pin connector	8-pin connector
Installation type/mounting						
Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)
Mounting type	Screwed joint	Screwed joint	Screwed joint	Screwed joint	Screwed joint	Screwed joint
Rack mounting	No	No	No	No	No	No
Front mounting	No	No	No	No	No	No
Number of slots for command devices and signaling units	6	8	10; Max. 8 control elements + 1 emergency stop button can be mounted (refer to manual)	10; Max. 8 control elements + 1 emergency stop button can be mounted (refer to manual)	12; Max. 8 control elements + 1 emergency stop button can be mounted (refer to manual)	6
RFID reader can be installed						Yes; SIMATIC RF200 Access Control Reader RF1060R
Supply voltage						
Rated value (DC)	24 V	24 V	24 V	24 V	24 V	24 V
Degree and class of protection						
IP (all-round)	IP65	IP65	IP65	IP65	IP65	IP65
NEMA (front)						
• Enclosure Type 4x at the front						Yes; All-round
Standards, approvals, certificates						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
UL approval	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
Ambient conditions						
Ambient temperature during operation						
• min.	0 °C	0 °C	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	50 °C	50 °C	50 °C	50 °C
Altitude during operation relating to sea level						
• Installation altitude above sea level, max.	2 000 m	2 000 m	2 000 m	2 000 m	2 000 m	2 000 m

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV7674-1LA31-0AA0	6AV7674-1LA41-0AA0	6AV7674-1LA51-0AA0	6AV7674-1LA61-0AA0	6AV7674-1LA71-0AA0	6AV7674-1LA81-0AA0
	Extension Unit 12" hardwired	Extension Unit 15" hardwired	Extension Unit 19" hardwired	Extension Unit 22" hardwired	Extension Unit 24" hardwired	Extension Unit 24" Portrait hardwired
Relative humidity						
• Operation, max.	90 %; no condensation					
Cables						
Cable length	30 m					
Mechanics/material						
Material						
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure material (front)						
• Aluminum	Yes; Knockout covered with black film					
Dimensions						
Width	313 mm	396 mm	462 mm	527 mm	583 mm	361 mm
Height	99 mm					
Depth	100.65 mm					100.65 mm
Thickness		100.65 mm	100.65 mm	100.65 mm	100.65 mm	
Weights						
Weight (without packaging)	2.2 kg	2.5 kg	2.7 kg	2.8 kg	2.6 kg	2.2 kg
Scope of supply						
Delivery quantity in pieces	1	1	1	1	1	1
Components included	all connectors required for customer interfaces					
Article number	6AV7674-1LA32-0AA0	6AV7674-1LA42-0AA0	6AV7674-1LA52-0AA0	6AV7674-1LA62-0AA0	6AV7674-1LA72-0AA0	6AV7674-1LA82-0AA0
	Extension Unit 12" PROFINET	Extension Unit 15" PROFINET	Extension Unit 19" PROFINET	Extension Unit 22" PROFINET	Extension Unit 24" PROFINET	Extension Unit 24" Portrait PROFINET
General information						
Product type designation	Extension Unit 12" PROFINET	Extension Unit 15" PROFINET	Extension Unit 19" PROFINET	Extension Unit 22" PROFINET	Extension Unit 24" PROFINET	Extension Unit 24" Portrait PROFINET
Control elements						
With parameterizable keys	Yes	Yes	Yes	Yes		
Connection type						
• Connection type of the safety-related contacts (emergency stop)	8-pin connector					
Installation type/mounting						
Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)
Mounting type	Screwed joint					
Rack mounting	No	No	No	No	No	No
Front mounting	No	No	No	No	No	No
Number of slots for command devices and signaling units	6	8	10	12	12	6
RFID reader can be installed		Yes; SIMATIC RF200 Access Control Reader RF1060R				
Supply voltage						
Rated value (DC)	24 V					
Interfaces						
Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch
Number of PROFINET interfaces	2; Incl. switch					

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV7674-1LA32-0AA0 Extension Unit 12" PROFINET	6AV7674-1LA42-0AA0 Extension Unit 15" PROFINET	6AV7674-1LA52-0AA0 Extension Unit 19" PROFINET	6AV7674-1LA62-0AA0 Extension Unit 22" PROFINET	6AV7674-1LA72-0AA0 Extension Unit 24" PROFINET	6AV7674-1LA82-0AA0 Extension Unit 24" Portrait PROFINET
Protocols						
PROFINET	Yes	Yes	Yes	Yes	Yes	Yes
Redundancy mode						
Media redundancy						
- MRP	Yes	Yes	Yes	Yes	Yes	Yes
Test commissioning functions						
Key and signal lamp test	Yes; automatically when switching on		Yes; automatically when switching on			
Degree and class of protection						
IP (all-round)	IP65	IP65	IP65	IP65	IP65	IP65
NEMA (front)						
• Enclosure Type 4x at the front	Yes; All-round	Yes; All-round	Yes; All-round	Yes; All-round		Yes; All-round
Standards, approvals, certificates						
CE mark	Yes	Yes	Yes	Yes	Yes	Yes
UL approval	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
Ambient conditions						
Ambient temperature during operation						
• min.	0 °C					
• max.	50 °C					
Altitude during operation relating to sea level						
• Installation altitude above sea level, max.	2 000 m					
Relative humidity						
• Operation, max.	90 %; no condensation					
Cables						
Cable length	30 m; Max. for emergency stop	30 m				
Mechanics/material						
Material						
• Aluminum	Yes	Yes	Yes	Yes	Yes	Yes
Enclosure material (front)						
• Aluminum	Yes; Knockout covered with black film					
Dimensions						
Width	313 mm	396 mm	462 mm	527 mm	583 mm	361 mm
Height	99 mm					
Depth	100.65 mm					
Weights						
Weight (without packaging)	2.2 kg	2.5 kg	2.7 kg	2.8 kg	2.6 kg	2.2 kg
Scope of supply						
Delivery quantity in pieces	1	1	1	1	1	1
Components included	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV7674-1LA33-0AA0	6AV7674-1LA43-0AA0	6AV7674-1LA53-0AA0	6AV7674-1LA63-0AA0	6AV7674-1LA73-0AA0
	Extension Unit 12" PROFISAFE	Extension Unit 15" PROFISAFE	Extension Unit 19" PROFISAFE	Extension Unit 22" PROFISAFE	Extension Unit 24" PROFISAFE
General information					
Product type designation	Extension Unit 12" PROFISafe	Extension Unit 15" PROFISafe	Extension Unit 19" PROFISafe	Extension Unit 22" PROFISafe	Extension Unit 24" PROFISafe
Control elements					
With parameterizable keys	Yes	Yes	Yes	Yes	
Installation type/mounting					
Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)
Mounting type	Screwed joint				
Rack mounting	No	No	No	No	No
Front mounting	No	No	No	No	No
Number of slots for command devices and signaling units	6	8	10	12	12
RFID reader can be installed	Yes; SIMATIC RF200 Access Control Reader RF1060R				
Supply voltage					
Rated value (DC)	24 V				
Interfaces					
Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch
Number of PROFINET interfaces	2; Incl. switch				
Protocols					
PROFISafe	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor
Redundancy mode					
Media redundancy					
- MRP	Yes	Yes			Yes
Test commissioning functions					
Key and signal lamp test	Yes; automatically when switching on				
Degree and class of protection					
IP (all-round)	IP65	IP65	IP65	IP65	IP65
NEMA (front)					
• Enclosure Type 4x at the front	Yes; All-round	Yes; All-round	Yes; All-round	Yes; All-round	
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes	Yes
Ambient conditions					
Ambient temperature during operation					
• min.	0 °C				
• max.	50 °C				
Altitude during operation relating to sea level					
• Installation altitude above sea level, max.	2 000 m				
Relative humidity					
• Operation, max.	90 %; no condensation				
Cables					
Cable length					30 m

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV7674-1LA33-0AA0 Extension Unit 12" PROFISAFE	6AV7674-1LA43-0AA0 Extension Unit 15" PROFISAFE	6AV7674-1LA53-0AA0 Extension Unit 19" PROFISAFE	6AV7674-1LA63-0AA0 Extension Unit 22" PROFISAFE	6AV7674-1LA73-0AA0 Extension Unit 24" PROFISAFE
Mechanics/material					
Material					
• Aluminum	Yes	Yes	Yes	Yes	Yes
Enclosure material (front)					
• Aluminum	Yes; Knockout covered with black film	Yes; Knockout covered with black film			
Dimensions					
Width	313 mm	396 mm	462 mm	527 mm	583 mm
Height	99 mm	99 mm	99 mm	99 mm	99 mm
Depth	100.65 mm	100.65 mm	100.65 mm	100.65 mm	100.65 mm
Weights					
Weight (without packaging)	2.2 kg	2.5 kg	2.7 kg	2.8 kg	2.6 kg
Scope of supply					
Delivery quantity in pieces	1	1	1	1	1
Components included	Power supply connector	Power supply connector	Power supply connector	Power supply connector	Power supply connector
Article number	6AV2185-8CE01-0AA0 Extension Unit 12" KP12 PN	6AV2185-8DE01-0AA0 Extension Unit 15" KP12 PN	6AV2185-8EE01-0AA0 Extension Unit 19" KP12 PN	6AV2185-8FE01-0AA0 Extension Unit 22" KP12 PN	
General information					
Product type designation	Extension Unit 12" KP12 PN	Extension Unit 15" KP12 PN	Extension Unit 19" KP12 PN	Extension Unit 22" KP12 PN	
Control elements					
Version of actuating element	1x Key Panel 12				
Operating principle of the actuating element	Tactile feedback	Tactile feedback	Tactile feedback	Tactile feedback	
Functional lighting	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	
With parameterizable keys	Yes	Yes	Yes	Yes	
Connection type					
• Connection type of the safety-related contacts (emergency stop)	8-pin connector	8-pin connector	8-pin connector	8-pin connector	
Installation type/mounting					
Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	
Mounting type	Screwed joint	Screwed joint	Screwed joint	Screwed joint	
Rack mounting	No	No	No	No	
Front mounting	No	No	No	No	
Number of slots for command devices and signaling units	3	5	6	8	
RFID reader can be installed	Yes; SIMATIC RF200 Access Control Reader RF1060R				
Supply voltage					
Rated value (DC)	24 V	24 V	24 V	24 V	
Interfaces					
Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	
Number of PROFINET interfaces	2; Incl. switch	2; Incl. switch	2; Incl. switch	2; Incl. switch	
Protocols					
PROFINET	Yes	Yes	Yes	Yes	
Redundancy mode					
Media redundancy					
- MRP	Yes	Yes	Yes	Yes	
Degree and class of protection					
IP (all-round)	IP65	IP65	IP65	IP65	

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV2185-8CE01-0AA0 Extension Unit 12" KP12 PN	6AV2185-8DE01-0AA0 Extension Unit 15" KP12 PN	6AV2185-8EE01-0AA0 Extension Unit 19" KP12 PN	6AV2185-8FE01-0AA0 Extension Unit 22" KP12 PN
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes; EAC	Yes; EAC	Yes; EAC	Yes; EAC
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	50 °C	50 °C
Altitude during operation relating to sea level				
• Installation altitude above sea level, max.	2 000 m	2 000 m	2 000 m	2 000 m
Relative humidity				
• Operation, max.	90 %; no condensation			
Cables				
Cable length	30 m; Max. for emergency stop			
Mechanics/material				
Material				
• Aluminum	Yes	Yes	Yes	Yes
Enclosure material (front)				
• Aluminum	Yes; Knockout covered with black film			
Dimensions				
Width	313 mm	396 mm	462 mm	527 mm
Height	99 mm	99 mm	99 mm	99 mm
Depth	100.65 mm	100.65 mm	100.65 mm	100.65 mm
Weights				
Weight (without packaging)	2.2 kg	2.5 kg	2.7 kg	2.8 kg
Scope of supply				
Delivery quantity in pieces	1	1	1	1
Components included	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs
Article number	6AV2185-8CE08-0AA0 Extension Unit 12" KP24 PN	6AV2185-8DE08-0AA0 Extension Unit 15" KP36 PN	6AV2185-8EE08-0AA0 Extension Unit 19" KP36 PN	6AV2185-8FE08-0AA0 Extension Unit 22" KP48 PN
General information				
Product type designation	Extension Unit 12" KP24 PN	Extension Unit 15" KP36 PN	Extension Unit 19" KP36 PN	Extension Unit 22" KP48 PN
Control elements				
Version of actuating element	2x Key Panel 12	3x Key Panel 12	3x Key Panel 12	4x Key Panel 12
Operating principle of the actuating element	Tactile feedback	Tactile feedback	Tactile feedback	Tactile feedback
Functional lighting	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow
With parameterizable keys	Yes	Yes	Yes	Yes
Connection type				
• Connection type of the safety-related contacts (emergency stop)	8-pin connector	8-pin connector	8-pin connector	8-pin connector
Installation type/mounting				
Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)
Mounting type	Screwed joint	Screwed joint	Screwed joint	Screwed joint
Rack mounting	No	No	No	No
Front mounting	No	No	No	No
Number of slots for command devices and signaling units	0	0	0	0
RFID reader can be installed	No	No	No	No

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV2185-8CE08-0AA0 Extension Unit 12" KP24 PN	6AV2185-8DE08-0AA0 Extension Unit 15" KP36 PN	6AV2185-8EE08-0AA0 Extension Unit 19" KP36 PN	6AV2185-8FE08-0AA0 Extension Unit 22" KP48 PN
Supply voltage				
Rated value (DC)	24 V	24 V	24 V	24 V
Interfaces				
Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch
Number of PROFINET interfaces	2; Incl. switch	2; Incl. switch	2; Incl. switch	2; Incl. switch
Protocols				
PROFINET	Yes	Yes	Yes	Yes
Redundancy mode				
Media redundancy				
- MRP	Yes	Yes	Yes	Yes
Degree and class of protection				
IP (all-round)	IP65	IP65	IP65	IP65
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
CSA approval			Yes	
UL approval	Yes	Yes	Yes	Yes
cULus	Yes	Yes		Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes; EAC	Yes; EAC	Yes; EAC	Yes; EAC
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	50 °C	50 °C
Altitude during operation relating to sea level				
• Installation altitude above sea level, max.	2 000 m	2 000 m	2 000 m	2 000 m
Relative humidity				
• Operation, max.	90 %; no condensation			
Cables				
Cable length	30 m; Max. for emergency stop			
Mechanics/material				
Material				
• Aluminum	Yes	Yes	Yes	Yes
Enclosure material (front)				
• Aluminum	Yes; Knockout covered with black film			
Dimensions				
Width	313 mm	396 mm	462 mm	527 mm
Height	99 mm	99 mm	99 mm	99 mm
Depth	100.65 mm	100.65 mm	100.65 mm	100.65 mm
Weights				
Weight (without packaging)	2.2 kg	2.5 kg	2.7 kg	2.8 kg
Scope of supply				
Delivery quantity in pieces	1	1	1	1
Components included	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs	Power supply connectors and 8-pole plug-in connectors for safety-related inputs

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV2185-8CF01-0AA0	6AV2185-8DF01-0AA0	6AV2185-8EF01-0AA0	6AV2185-8FF01-0AA0
	Extension Unit 12" KP12F PN	Extension Unit 15" KP12F PN	Extension Unit 19" KP12F PN	Extension Unit 22" KP12F PN
General information				
Product type designation	Extension Unit 12" KP12F PN	Extension Unit 15" KP12F PN	Extension Unit 19" KP12F PN	Extension Unit 22" KP12F PN
Control elements				
Version of actuating element	1x Key Panel 12			
Operating principle of the actuating element	Tactile feedback	Tactile feedback	Tactile feedback	Tactile feedback
Functional lighting	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow	Yes; Freely configurable colors: Red, green, blue, white, yellow
With parameterizable keys	Yes	Yes	Yes	Yes
Installation type/mounting				
Mounting	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)	For mounting on a 16:9 HMI / IPC PRO device (lower part)
Mounting type	Screwed joint	Screwed joint	Screwed joint	Screwed joint
Rack mounting	No	No	No	No
Front mounting	No	No	No	No
Number of slots for command devices and signaling units	3	5	6	8
RFID reader can be installed	Yes; SIMATIC RF200 Access Control Reader RF1060R			
Supply voltage				
Rated value (DC)	24 V	24 V	24 V	24 V
Interfaces				
Number of industrial Ethernet interfaces	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch	2; For the construction of lines and rings without external switch
Number of PROFINET interfaces	2; Incl. switch	2; Incl. switch	2; Incl. switch	2; Incl. switch
Protocols				
PROFIsafe	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor	Yes; 1x SIL 2 (two-channel) or 2x SIL 3 (single-channel) emergency stop sensor
Redundancy mode				
Media redundancy				
- MRP	Yes	Yes	Yes	Yes
Degree and class of protection				
IP (all-round)	IP65	IP65	IP65	IP65
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
UL approval	Yes	Yes	Yes	Yes
cULus	Yes	Yes	Yes	Yes
RCM (formerly C-TICK)	Yes	Yes	Yes	Yes
KC approval	Yes	Yes	Yes	Yes
EAC (formerly Gost-R)	Yes; EAC	Yes; EAC	Yes; EAC	Yes; EAC
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	50 °C	50 °C
Altitude during operation relating to sea level				
• Installation altitude above sea level, max.	2 000 m	2 000 m	2 000 m	2 000 m
Relative humidity				
• Operation, max.	90 %; no condensation			
Mechanics/material				
Material				
• Aluminum	Yes	Yes	Yes	Yes
Enclosure material (front)				
• Aluminum	Yes; Knockout covered with black film			

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV2185-8CF01-0AA0	6AV2185-8DF01-0AA0	6AV2185-8EF01-0AA0	6AV2185-8FF01-0AA0	
	Extension Unit 12" KP12F PN	Extension Unit 15" KP12F PN	Extension Unit 19" KP12F PN	Extension Unit 22" KP12F PN	
Dimensions					
Width	313 mm	396 mm	462 mm	527 mm	
Height	99 mm	99 mm	99 mm	99 mm	
Depth	100.65 mm	100.65 mm	100.65 mm	100.65 mm	
Weights					
Weight (without packaging)	2.2 kg	2.5 kg	2.7 kg	2.8 kg	
Scope of supply					
Delivery quantity in pieces	1	1	1	1	
Components included	Power supply connector	Power supply connector	Power supply connector	Power supply connector	
Article number	6AV7674-1MA00-0AA0	6AV7674-1MB00-0AA0	6AV7674-1MG00-0AA0	6AV7674-1MG50-0AA0	6AV7674-1MC00-0AA0
	E-Stop Pushbutton for Ext. Unit	Illuminated Pushbutton for Ext. Unit	Illum. pushbutton for ext.unit (1NO+1NC)	Pushbutton Safety for Ext. Unit	Indicator Light for Ext. Unit
General information					
Product type designation	EMERGENCY STOP mushroom pushbutton for Extension Unit	Illuminated pushbutton for Extension Unit	Illuminated pushbutton for Extension Unit (1 NC contact / 1 NO contact)	Safety pushbutton for Extension Unit (2 NO contacts)	Indicator light for Extension Unit
Control elements					
Version of actuating element	Conical mushroom pushbutton	Pushbutton with flat button	Pushbutton with flat button	Pushbutton with flat button	Flat lens
Operating principle of the actuating element	Latching, rotate to unlatch	Momentary contact	Momentary contact	Momentary contact	
Shape of actuating element	Round	Round	Round	Round	Round
Illuminant	No; Cannot be illuminated	Yes; Can be illuminated	Yes; Can be illuminated	No; Cannot be illuminated	Yes; Can be illuminated
<ul style="list-style-type: none"> Type of light source Color of light source 		Translucent white (different colors are created using the colored disk supplied)	Translucent white (different colors are created using the colored disk supplied)	Translucent white (different colors are created using the colored disk supplied)	Translucent white (different colors are created using the colored disk supplied)
Contact configuration	2 NC contacts	1 NO contact	1 NC contact, 1 NO contact	2 NO contacts	
Installation type/mounting					
Mounting type	Threaded ring	Threaded ring	Threaded ring	Threaded ring	Threaded ring
Front mounting	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices
Supply voltage					
Rated value (DC)	24 V	24 V	24 V	24 V	24 V
Degree and class of protection					
IP (at the front)	IP65 (on front) to EN60529 and NEMA4	IP65 (on front) to EN60529 and NEMA4	IP65 (on front) to EN60529 and NEMA4	IP65 (on front) to EN60529 and NEMA4	IP65 (on front) to EN60529 and NEMA4
Standards, approvals, certificates					
CE mark	Yes	Yes	Yes	Yes	Yes
UL approval	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit
cULus	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit
RCM (formerly C-TICK)	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit
Ambient conditions					
Ambient temperature during operation					
<ul style="list-style-type: none"> min. max. 	0 °C 50 °C	0 °C 50 °C	0 °C 50 °C	0 °C 50 °C	0 °C 50 °C
Altitude during operation relating to sea level					
<ul style="list-style-type: none"> Installation altitude above sea level, max. 	3 500 m	3 500 m	3 500 m	3 500 m	3 500 m

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV7674-1MA00-0AA0	6AV7674-1MB00-0AA0	6AV7674-1MG00-0AA0	6AV7674-1MG50-0AA0	6AV7674-1MC00-0AA0
	E-Stop Pushbutton for Ext. Unit	Illuminated Pushbutton for Ext. Unit	Illum. pushbutton for ext.unit (1NO+1NC)	Pushbutton Safety for Ext. Unit	Indicator Light for Ext. Unit
Relative humidity					
• Operation, max.	90 %	90 %	90 %	90 %	90 %
• Condensation permissible	No	No	No	No	No
Mechanics/material					
Material					
• Plastic	Yes	Yes	Yes	Yes	Yes
Material of the actuating element	plastic	plastic	plastic	plastic	plastic
Material of the front ring	plastic	plastic	plastic	plastic	plastic
Enclosure color (front)	red	Colorless	Colorless	Colorless	Colorless
Color of the front ring	Yellow	Silver metallic	Silver metallic	Silver metallic	Silver metallic
Service life					
• Number of operating cycles, keys	50 000	1 000 000	1 000 000	1 000 000	
Dimensions					
Height of housing front	33.2 mm	9.85 mm	9.85 mm	9.85 mm	9.85 mm
Mounting diameter	22.3 mm	22.3 mm	22.3 mm	22.3 mm	22.3 mm
Weights					
Weight (without packaging)	50 g	50 g	50 g	50 g	50 g
Scope of supply					
Delivery quantity in pieces	1	1	1	1	1
Components included					
• Number of colored lenses		5; colorless, red, yellow, green, blue	5; colorless, red, yellow, green, blue	6; colorless, red, yellow, green, blue, black	5; colorless, red, yellow, green, blue
Other					
Target devices	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)	suitable for Extension Units of the 16:9 HMI/IPC PRO devices as of TIA Portal V16 (refer to manual)	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)
Note:				configurable as of TIA Portal V16	
Article number	6AV7674-1MD00-0AA0	6AV7674-1ME00-0AA0	6AV7674-1ME50-0AA0	6AV7674-1MF00-0AA0	
	Selector Switch for Ext. Unit	Key-operated Switch for Ext. Unit	Safety keyswitch for Extension Unit	USB interface for Extension Unit	
General information					
Product type designation	Selector switch for Extension Unit	Key-operated switch for Extension Unit	Safety keyswitch for Extension Unit	USB interface for Extension Unit	
Control elements					
Version of actuating element	Rotary handle, 3 switch positions	3 switch positions (withdrawal positions)	2 switch positions (pos. 0 removal position)		
Operating principle of the actuating element	Latching	Latching	Latching		
Shape of actuating element	Round	Round	Round		
Illuminant	Yes; Can be illuminated	No; Cannot be illuminated	No; Cannot be illuminated		
• Type of light source	SMT LED				
• Color of light source	Translucent white				
Contact configuration	2 NO contacts	2 NO contacts	2 NO contacts		
Connection type					
• USB				Yes; USB 2.0 type A	
• Cable length				0.7 m	
Installation type/mounting					
Mounting type	Threaded ring	Threaded ring	Threaded ring	Threaded ring	
Front mounting	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	Yes; Front plate attachment in an Extension Unit for 16:9 PRO devices	
Supply voltage					
Rated value (DC)	24 V	24 V	24 V		

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

Technical specifications

Article number	6AV7674-1MD00-0AA0 Selector Switch for Ext. Unit	6AV7674-1ME00-0AA0 Key-operated Switch for Ext. Unit	6AV7674-1ME50-0AA0 Safety keyswitch for Extension Unit	6AV7674-1MF00-0AA0 USB interface for Extension Unit
Degree and class of protection				
IP (all-round)				IP65 fully enclosed (when protective cover is closed)
IP (at the front)	IP65 (on front) to EN60529 and NEMA4	IP65 (on front) to EN60529 and NEMA4	IP65 (on front) to EN60529 and NEMA4	IP20 when protective cover is open
Standards, approvals, certificates				
CE mark	Yes	Yes	Yes	Yes
UL approval	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes
cULus	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes
RCM (formerly C-TICK)	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes; Only in combination with Extension Unit	Yes
KC approval				Yes
EAC (formerly Gost-R)				Yes
Ambient conditions				
Ambient temperature during operation				
• min.	0 °C	0 °C	0 °C	0 °C
• max.	50 °C	50 °C	50 °C	50 °C
Altitude during operation relating to sea level				
• Installation altitude above sea level, max.	3 500 m	3 500 m	3 500 m	3 500 m
Relative humidity				
• Operation, max.	90 %	90 %	90 %	90 %
• Condensation permissible	No	No	No	No
Operating systems				
Runs under operating system				
• other				Yes; Windows 7 Ultimate 32-bit / 64-bit, MUI; Windows Embedded Standard 7 E/P, 32-bit / 64-bit
Cables				
Cable length				0.5 m
smallest bending radius				0 mm
Mechanics/material				
Material				aluminum
• Plastic	Yes	Yes	Yes	
Material of the actuating element	plastic	plastic	plastic	
Material of the front ring	plastic	plastic	plastic	
Enclosure color (front)	gray	gray	gray	Silver metallic
Color of the front ring	Silver metallic	Silver metallic	Silver metallic	
Service life				
• Number of operating cycles, keys	300 000	50 000	50 000	1 500; Insertion cycles
Dimensions				
Height of housing front	22.24 mm	45.1 mm	45.1 mm	
Overall depth				10 mm
Mounting diameter	22.3 mm	22.3 mm	22.3 mm	22.3 mm
Weights				
Weight (without packaging)	50 g	50 g	50 g	0.13 g
Scope of supply				
Delivery quantity in pieces	1	1; Including 2 keys	1; Including 2 keys	
Components included				USB socket with cable and connector, threaded ring
Other				
Target devices	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)	suitable for Extension Units of the 16:9 HMI/IPC PRO devices as of TIA Portal V16 (refer to manual)	Suitable for Extension Units of the 16:9 HMI/IPC PRO devices (refer to manual)
Note:			configurable as of TIA Portal V16	

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension Units and operator controls

More information

More information is available on the internet at

<https://www.siemens.com/simatic-hmi-pro>.

Note:

Do you need a specific modification or extension to the products described here? Under "Customized products" you can find information about additional and generally available products for the sector, and about the possibilities for customized modification and adaptation.

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension components

Overview



Extension components

The extension components are part of the system components for PRO devices and complement the portfolio of fully enclosed devices. These components in combination with the basic devices enable customers to implement a large variety of operating scenarios.

The following products are available as extension components:

- Keyboard tray for PRO devices
- Keyboard tray plate for PRO devices
- USB interface for PRO devices
- Handles for PRO devices (12" – 22" variant and 24" variant)

You can find suitable accessories that match the extension elements, such as INOX keyboards, in the category "Accessories" under "Input devices".

Ordering data

Article No.

Keyboard tray for PRO devices Tilttable, incl. 2-way USB interface; color: silver	6AV7674-1NF01-0AA0
Keyboard tray plate for PRO devices Tilttable, incl. 2-way USB interface; color: silver	6AV7674-1NG00-0AA0
USB interface for PRO devices Cable and connector, USB 2.0 type A. IP65 degree of protection if protective cover is closed. Integrated via cover on the side of the basic adapter	6AV7674-1LX00-0AA0
Handles for PRO devices For optimum handling and haptics when positioning and tilting the HMI PRO device. Universally adjustable from 12" to 22".	6AV7674-1LB10-0AA0
Handles for PRO devices 24"	6AV7674-1LB15-0AA0

Operator panels

Advanced HMI Panel-based
Comfort Panels

System components for fully-enclosed IP65-protected devices > Extension components

Technical specifications

Article number	6AV7674-1NF01-0AA0	6AV7674-1NG00-0AA0
	Keyboard tray for PRO devices	Keyboard tray plate for HMI PRO devices
General information		
Product type designation	keyboard tray	storage plate
Mechanics/material		
Material	No	
• Plastic	No	
• Aluminum	Yes; Powder-coated	
• Sheet steel	No	
• Stainless steel	No	
• PET	No	
Article number	6AV7674-1LB15-0AA0	
	Handles for HMI PRO devices 24"	
General information		
Product type designation	Handles for HMI PRO devices 24"	
Degree and class of protection		
IP (all-round)	IP65 when installed	
Standards, approvals, certificates		
RoHS conformity	Yes	
Mechanics/material		
Material	Yes; Powder-coated, RAL 9006	
• Aluminum	Yes; Powder-coated, RAL 9006	
Weights		
Weight (without packaging)	1.9 kg	
Scope of supply		
Delivery quantity in pieces	1	
Components included	Screws for attachment	
Other		
Target devices	PRO devices for support arm (extendable, round tube) and pedestal (extendable, flange below)	

Article number	6AV7674-1LX00-0AA0
	USB Interface for Pro Devices
General information	
Product type designation	USB interface for PRO devices
Control elements	
Connection type	
• USB	Yes; USB 2.0 type A
• Cable length	0.5 m
Installation type/mounting	
Mounting	Integrated by means of cover on the side of the basic adapter.
Degree and class of protection	
IP (all-round)	IP65 fully enclosed (when protective cover is closed)
IP (at the front)	IP20 when protective cover is open
Standards, approvals, certificates	
CE mark	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	50 °C
Altitude during operation relating to sea level	
• Installation altitude above sea level, max.	3 500 m
Relative humidity	
• Operation, max.	90 %
• Condensation permissible	No
Cables	
Cable length	0.5 m
Mechanics/material	
Material	Brass, nickel-plated
Enclosure material (front)	USB cover: Anodized aluminum, cover for basic adapter: Aluminum, powder-coated, RAL 9006
Enclosure color (front)	Silver metallic
Service life	
• Number of operating cycles, keys	1 500; Insertion cycles
Dimensions	
Enclosure diameter	22.5 mm; Hole diameter in the cover for the basic adapter
Overall depth	20 mm
Weights	
Weight (without packaging)	0.25 kg
Scope of supply	
Delivery quantity in pieces	1
Components included	USB socket with cable and connector, cover for the basic adapter, bolts for fastening