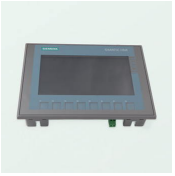
Siemens 6AV2123-2GB03-0AX0

KTP700 Basic Panel

The Siemens 6AV2123-2GB03-0AX0 is a SIMATIC HMI KTP700 Basic operator panel from the second-generation Basic Panels family.



Technical Specifications

Product Identity	
Manufacturer	Siemens AG
Complete order number	6AV2123-2GB03-0AX0
Product family	SIMATIC HMI Basic Panels, second generation
Product designation	KTP700 Basic PROFINET
Housing front (W × H)	214 × 158 mm
Mounting cutout (W × H)	198 × 142 mm, as listed in the current Siemens datasheet
Mounting depth	39 mm
Functional Configuration	
Operation	Touchscreen and 8 function keys
Display	7-inch TFT widescreen; LED backlighting
Resolution / colors	800 × 480 pixels / 65,536 colors
Active display area	154.1 × 85.9 mm
Interfaces	1 Industrial Ethernet interface; 1 USB interface
PROFINET IO / PROFIBUS	Not supported / not supported
Engineering software	Configurable from WinCC Basic V13 / STEP 7 Basic V13
Performance & Power	
Rated supply / permitted range	24 V DC / 19.2–28.8 V DC
Rated current / typical power	230 mA / 5.5 W
User-data memory	10 MB
Environment	
Protection	IP65 front; IP20 rear, subject to correct installation
Operating temperature, landscape	0–50 °C upright; 0–40 °C at maximum tilt
Operating temperature, portrait	0–40 °C upright; 0–35 °C at maximum tilt
Maximum inclination	35° from vertical
Storage / transport temperature	–20 to +60 °C
Operating humidity	Maximum 90%; no condensation

Selected original manufacturer pages follow on pages 3–6.

Compatibility & Selection Guide

Software and system compatibility. The 6AV2123-2GB03-0AX0 is configurable from WinCC Basic V13 / STEP 7 Basic V13 in TIA Portal; STEP 7 Basic uses its integrated WinCC Basic for HMI configuration. Siemens lists connections to S7-1200, S7-1500, S7-200, S7-300/400, LOGO! and WinAC, together with supported Ethernet drivers such as Modbus TCP/IP. The selected CPU, connection driver and project must be checked for the application. Published limits include 800 variables, 250 configurable screens and 50 recipes.

Wiring & Installation Reference

Power and interfaces

Power. DC24V X80 · Pin 1: +24 V DC (L+); pin 2: GND 24 V (M).

LAN. PROFINET (LAN) X1 · RJ45 Industrial Ethernet connection for the controller or engineering PC.

USB. USB X60 · USB interface for supported storage and service peripherals.

Panel mounting and connection

Prepare the enclosure. Disconnect cabinet power and use trained personnel. Provide front access for operation and a protected rear enclosure.

Check the opening. Use the current Siemens datasheet mounting cutout of 198 × 142 mm. Keep the sealing surface stable and flat; the material at the cutout must be 2–6 mm thick for the stated front protection.

Secure the panel. Insert the KTP700 Basic from the front and secure all seven mounting clips. Do not exceed 0.2 N·m clip torque. Observe orientation-dependent temperatures and ventilation clearances.

Connect and check. Connect equipotential bonding, then the safely isolated DC supply, configuration PC and controller in the documented sequence. Check polarity and secure cables against strain.

Installation precautions. Use an SELV/PELV supply. Power conductors may be up to 1.5 mm²; strip 6 mm and fit cable end sleeves. Isolate the supply while terminating. Connect the panel functional-earth point to the bonding rail using 4 mm² conductor. Cable shields are not a substitute for the plant equipotential-bonding network; follow the manual for its sizing and routing.

View installation reference (PDF) · PDF page 2 | View dimensions reference (PDF) · PDF page 6

Manufacturer sources: Siemens data sheet 6AV2123-2GB03-0AX0 / Siemens data sheet 6AV2123-2GB03-0AX0 / Basic Panels 2nd Generation Operating Instructions / Siemens Industry Mall —6AV2123-2GB03-0AX0 / Siemens SiePortal — 6AV2123-2GB03-0AX0.

SIEMENS

Data sheet 6AV2123-2GB03-0AX0



SIMATIC HMI, KTP700 Basic, Basic Panel, Key/touch operation, 7" TFT display, 65536 colors, PROFINET interface, configurable from WinCC Basic V13/ STEP 7 Basic V13, contains open-source software, which is provided free of charge see enclosed CD

General information	
Product type designation	KTP700 Basic color PN
Display	
Design of display	TFT widescreen display, LED backlighting
Screen diagonal	7 in
Display width	154.1 mm
Display height	85.9 mm
Number of colors	65 536
Resolution (pixels)	
● Horizontal image resolution	800 pixel
● Vertical image resolution	480 pixel
Backlighting	
● MTBF backlighting (at 25 °C)	20 000 h
● Backlight dimmable	Yes
Control elements	
Keyboard	
● Function keys	
— Number of function keys	8
— Number of function keys with LEDs	0
● Keys with LED	No
● System keys	No
● Numeric keyboard	Yes; Onscreen keyboard
● alphanumeric keyboard	Yes; Onscreen keyboard
Touch operation	
● Design as touch screen	Yes; Analog-resistive
Installation type/mounting	
Mounting position	vertical
Wall mounting/direct mounting	No
Mounting in portrait format possible	Yes
Mounting in landscape format possible	Yes
maximum permissible angle of inclination without external ventilation	35°
Supply voltage	
Type of supply voltage	DC
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 V
permissible range, upper limit (DC)	28.8 V
Input current	
Current consumption (rated value)	230 mA

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Starting current inrush I²t	0.2 A²·s
Power	
Active power input, typ.	5.5 W
Processor	
Processor type	ARM
Storage	
Flash	Yes
RAM	Yes
Memory available for user data	10 Mbyte
Type of output	
Acoustics	
● Buzzer	Yes
● Speaker	No
Time of day	
Clock	
● Hardware clock (real-time)	Yes
● Software clock	Yes
● retentive	Yes; Back-up duration typically 6 weeks
● synchronizable	Yes
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	0
Number of RS 422 interfaces	0
Number of RS 232 interfaces	0
Number of USB interfaces	1; Up to 16 GB
Number of 20 mA interfaces (TTY)	0
Number of parallel interfaces	0
Number of other interfaces	0
Number of SD card slots	0
With software interfaces	No
Industrial Ethernet	
● Industrial Ethernet status LED	2
Protocols	
PROFINET	Yes
Supports protocol for PROFINET IO	No
IRT	No
PROFIBUS	No
EtherNet/IP	Yes
MPI	No
Protocols (Ethernet)	
● TCP/IP	Yes
● DHCP	Yes
● DCP	Yes
● LLDP	Yes
WEB characteristics	
● HTTP	No
● HTML	No
Redundancy mode	
Media redundancy	
— MRP	No
Further protocols	
● CAN	No
● MODBUS	Yes; Modicon (MODBUS TCP/IP)
Interrupts/diagnostics/status information	
Diagnoses	
● Diagnostic information readable	No
EMC	
Emission of radio interference acc. to EN 55 011	

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● Limit class A, for use in industrial areas	Yes
● Limit class B, for use in residential areas	No
Degree and class of protection	
IP (at the front)	IP65
IP (rear)	IP20
NEMA (front)	
● Enclosure Type 4 at the front	Yes
● Enclosure Type 4x at the front	Yes
Standards, approvals, certificates	
CE mark	Yes
cULus	Yes
RCM (formerly C-TICK)	Yes
KC approval	Yes
Ecological footprint	
● environmental product declaration	Yes
Global warming potential	
— global warming potential, (total) [CO2 eq]	85 kg
— global warming potential, (during production) [CO2 eq]	26.2 kg
— global warming potential, (during operation) [CO2 eq]	59.2 kg
— global warming potential, (after end of life cycle) [CO2 eq]	-0.682 kg
Use in hazardous areas	
● ATEX Zone 2	No
● ATEX Zone 22	No
● IECEx Zone 2	No
● IECEx Zone 22	No
● cULus Class I Zone 1	No
● cULus Class I Zone 2, Division 2	No
● FM Class I Division 2	No
Marine approval	
● Germanischer Lloyd (GL)	Yes
● American Bureau of Shipping (ABS)	Yes
● Bureau Veritas (BV)	Yes
● Det Norske Veritas (DNV)	Yes
● Lloyds Register of Shipping (LRS)	Yes
● Nippon Kaiji Kyokai (Class NK)	Yes
● Polski Rejestr Statkow (PRS)	No
● Chinese Classification Society (CCS)	No
Ambient conditions	
Ambient temperature during operation	
Operation (vertical installation)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	50 °C
Operation (max. tilt angle)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	40 °C
Operation (vertical installation, portrait format)	
— For vertical installation, min.	0 °C
— For vertical installation, max.	40 °C
Operation (max. tilt angle, portrait format)	
— At maximum tilt angle, min.	0 °C
— At maximum tilt angle, max.	35 °C
Ambient temperature during storage/transportation	
● min.	-20 °C
● max.	60 °C
Relative humidity	
● Operation, max.	90 %; no condensation

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Width of the housing front	214 mm
Height of housing front	158 mm
Mounting cutout, width	198 mm
Mounting cutout, height	142 mm
mounting depth	39 mm

Weights

Weight (without packaging)	780 g
Weight (with packaging)	990 g

Classifications

	Version	Classification
eClass	16	27-33-02-01
eClass	14	27-33-02-01
eClass	12	27-33-02-01
eClass	9.1	27-33-02-01
eClass	9	27-33-02-01
eClass	8	27-24-23-02
eClass	7.1	27-24-23-02
eClass	6	27-24-23-02
ETIM	10	EC001412
ETIM	9	EC001412
ETIM	8	EC001412
ETIM	7	EC001412
IDEA	4	6607
UNSPSC	15	43-21-15-06

Approvals / Certificates

General Product Approval

Manufacturer Declaration

Miscellaneous

General Product Approval

China RoHS

Manufacturer Declaration

Maritime application

Maritime application

NK / Nippon Kaiji Kyokai

CCS (China Classification Society)

KR (Korean Register of Shipping)

Environment

last modified: 6/15/2025

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