

SIPLUS HMI KTP700 Basic Color PN -20...+50°C with conformal coating based on "6AV2123-2GB03-0AX0 . ""7"" TFT" "display, 65536 colors"" PROFINET" interface



Figure similar

| 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 fonts | |
| • 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 |
| Installation type/mounting | |
| 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 | |

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| Current consumption (rated value) | 230 mA |
| Starting current inrush I ² t | 0.2 A ² ·s |
| Power | |
| Active power input, typ. | 5.5 W |
| Processor | |
| Processor type | ARM |
| Memory | |
| 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 |
| • 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 |
| • SNMP | Yes |
| • DCP | Yes |
| • LLDP | Yes |
| WEB characteristics | |
| • HTTP | No |
| • HTML | 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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|---|---|
| <ul style="list-style-type: none"> • Limit class A, for use in industrial areas • Limit class B, for use in residential areas | <p>Yes</p> <p>No</p> |
| Degree and class of protection | |
| NEMA (front) | |
| <ul style="list-style-type: none"> • Enclosure Type 4 at the front • Enclosure Type 4x at the front | <p>Yes</p> <p>Yes</p> |
| Ambient conditions | |
| Suited for indoor use | Yes |
| Suited for outdoor use | No |
| Ambient temperature during operation | |
| Operation (vertical installation) | |
| — For vertical installation, min. | -20 °C |
| — For vertical installation, max. | 50 °C |
| Operation (max. tilt angle) | |
| — At maximum tilt angle, min. | -20 °C |
| — At maximum tilt angle, min. | 40 °C |
| Operation (vertical installation, portrait format) | |
| — For vertical installation, min. | -20 °C |
| — For vertical installation, max. | 40 °C |
| Operation (max. tilt angle, portrait format) | |
| — At maximum tilt angle, min. | -20 °C |
| — At maximum tilt angle, min. | 35 °C |
| Ambient temperature during storage/transportation | |
| <ul style="list-style-type: none"> • min. • max. | <p>-20 °C</p> <p>60 °C</p> |
| Altitude during operation relating to sea level | |
| <ul style="list-style-type: none"> • Installation altitude above sea level, max. • Ambient air temperature-barometric pressure-altitude | <p>5 000 m</p> <p>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)</p> |
| Relative humidity | |
| <ul style="list-style-type: none"> • With condensation, tested in accordance with IEC 60068-2-38, max. | 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 |
| 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 |
| — 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); * |
| — 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 |
| — 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); * |
| — 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) |
| 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! |
| Conformal coating | |

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| <ul style="list-style-type: none"> • Coatings for printed circuit board assemblies acc. to EN 61086 | Yes; Class 2 for high reliability |
| <ul style="list-style-type: none"> • Protection against fouling acc. to EN 60664-3 | Yes; Type 1 protection |
| <ul style="list-style-type: none"> • Military testing according to MIL-I-46058C, Amendment 7 | Yes; Discoloration of coating possible during service life |
| <ul style="list-style-type: none"> • Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A | Yes; Conformal coating, Class A |
| Operating systems | |
| proprietary | Yes |
| pre-installed operating system | |
| <ul style="list-style-type: none"> • Windows CE | No |
| Configuration | |
| Message indicator | Yes |
| Alarm system (incl. buffer and acknowledgment) | Yes |
| Process value display (output) | Yes |
| Process value default (input) possible | Yes |
| Recipe management | Yes |
| Configuration software | |
| <ul style="list-style-type: none"> • STEP 7 Basic (TIA Portal) | Yes; via integrated WinCC Basic (TIA Portal) |
| <ul style="list-style-type: none"> • STEP 7 Professional (TIA Portal) | Yes; via integrated WinCC Basic (TIA Portal) |
| <ul style="list-style-type: none"> • WinCC flexible Compact | No |
| <ul style="list-style-type: none"> • WinCC flexible Standard | No |
| <ul style="list-style-type: none"> • WinCC flexible Advanced | No |
| <ul style="list-style-type: none"> • WinCC Basic (TIA Portal) | Yes |
| <ul style="list-style-type: none"> • WinCC Comfort (TIA Portal) | Yes |
| <ul style="list-style-type: none"> • WinCC Advanced (TIA Portal) | Yes |
| <ul style="list-style-type: none"> • WinCC Professional (TIA Portal) | Yes |
| Languages | |
| Online languages | |
| <ul style="list-style-type: none"> • Number of online/runtime languages | 10 |
| Project languages | |
| <ul style="list-style-type: none"> • Languages per project | 32 |
| Functionality under WinCC (TIA Portal) | |
| Libraries | Yes |
| Number of Visual Basic Scripts | No |
| Task planner | Yes |
| <ul style="list-style-type: none"> • time-controlled | No |
| <ul style="list-style-type: none"> • task-controlled | Yes |
| Help system | Yes |
| <ul style="list-style-type: none"> • Number of characters per info text | 500 |
| Message system | |
| <ul style="list-style-type: none"> • Number of alarm classes | 32 |
| <ul style="list-style-type: none"> • Bit messages <ul style="list-style-type: none"> — Number of bit messages | 1 000 |
| <ul style="list-style-type: none"> • Analog messages <ul style="list-style-type: none"> — Number of analog messages | 25 |
| <ul style="list-style-type: none"> • S7 alarm number procedure | No |
| <ul style="list-style-type: none"> • System messages HMI | Yes |
| <ul style="list-style-type: none"> • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 |
| <ul style="list-style-type: none"> • Number of characters per message | 80 |
| <ul style="list-style-type: none"> • Number of process values per message | 8 |
| <ul style="list-style-type: none"> • Acknowledgment groups | Yes |
| <ul style="list-style-type: none"> • Message indicator | Yes |
| <ul style="list-style-type: none"> • Message buffer <ul style="list-style-type: none"> — Number of entries — Circulating buffer — retentive | 256 Yes Yes |

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| — maintenance-free | Yes |
| Recipe management | |
| • Number of recipes | 50 |
| • Data records per recipe | 100 |
| • Entries per data record | 100 |
| • Size of internal recipe memory | 256 kbyte |
| • Recipe memory expandable | No |
| Variables | |
| • Number of variables per device | 800 |
| • Number of variables per screen | 100 |
| • Limit values | Yes |
| • Multiplexing | Yes |
| • Structures | No |
| • Arrays | Yes |
| Images | |
| • Number of configurable images | 250 |
| • Permanent window/default | Yes |
| • Global image | Yes |
| • Image selection by PLC | Yes |
| • Image number in the PLC | Yes |
| Image objects | |
| • Number of objects per image | 100 |
| • Text fields | Yes |
| • I/O fields | Yes |
| • Graphic I/O fields (graphics list) | Yes |
| • Symbolic I/O fields (text list) | Yes |
| • Date/time fields | Yes |
| • Switches | Yes |
| • Buttons | Yes |
| • Graphic display | Yes |
| • Icons | Yes |
| • Geometric objects | Yes |
| Complex image objects | |
| • Number of complex objects per screen | 10 |
| • Alarm view | Yes |
| • Trend view | Yes |
| • User view | Yes |
| • Status/control | No |
| • Sm@rtClient view | No |
| • Recipe view | Yes |
| • f(x) trend view | No |
| • System diagnostics view | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 |
| • Media Player | No |
| • Bar graphs | Yes |
| • Sliders | No |
| • Pointer instruments | No |
| • Analog/digital clock | No |
| Lists | |
| • Number of text lists per project | 150 |
| • Number of entries per text list | 100 |
| • Number of graphics lists per project | 100 |
| • Number of entries per graphics list | 100 |
| Archiving | |
| • Number of archives per device | 2 |
| • Number of entries per archive | 10 000 |
| • Message archive | Yes |
| • Process value archive | Yes |
| • Archiving methods | |

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|--|---------------------------|
| — Sequential archive | Yes |
| — Short-term archive | Yes |
| • Memory location | |
| — Memory card | No |
| — USB memory | Yes |
| — Ethernet | No |
| • Data storage format | |
| — CSV | No |
| — TXT | Yes |
| — RDB | No |
| Security | |
| • Number of user groups | 50 |
| • Number of user rights | 32 |
| • Number of users | 50 |
| • Password export/import | Yes; Possible via ProSave |
| • SIMATIC Logon | No |
| Character sets | |
| • Keyboard fonts | |
| — US English | Yes |
| Transfer (upload/download) | |
| • MPI/PROFIBUS DP | No |
| • USB | No |
| • Ethernet | Yes |
| • using external storage medium | No |
| Process coupling | |
| • S7-1200 | Yes |
| • S7-1500 | Yes |
| • S7-200 | Yes |
| • S7-300/400 | Yes |
| • LOGO! | Yes |
| • WinAC | Yes |
| • SINUMERIK | No |
| • SIMOTION | Yes |
| • Allen Bradley (EtherNet/IP) | Yes |
| • Allen Bradley (DF1) | No |
| • Mitsubishi (MC TCP/IP) | Yes |
| • Mitsubishi (FX) | No |
| • OMRON (FINS TCP) | No |
| • OMRON (LINK/Multilink) | No |
| • Modicon (Modbus TCP/IP) | Yes |
| • Modicon (Modbus) | No |
| Service tools/configuration aids | |
| • Backup/Restore manually | Yes; Possible via ProSave |
| • Backup/Restore automatically | No |
| • Simulation | Yes |
| • Device switchover | Yes |
| Peripherals/Options | |
| Printer | No |
| SIMATIC HMI MM memory card: Multi Media Card | No |
| SIMATIC HMI SD memory card: Secure Digital memory card | No |
| USB memory | Yes |
| Mechanics/material | |
| Enclosure material (front) | |
| • Plastic | Yes |
| • Aluminum | No |
| • Stainless steel | No |
| Dimensions | |

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| Width of the housing front | 214 mm |
| Height of housing front | 158 mm |
| Mounting cutout, width | 197 mm |
| Mounting cutout, height | 141 mm |
| Overall depth | 39 mm |

Weights

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|--------------------------|-------|
| Weight without packaging | 780 g |
| Weight incl. packaging | 990 g |

last modified: 5/17/2021 