

SIPLUS HMI KTP900 Basic Color PN -20...+50°C with conformal coating based on "6AV2123-2JB03-0AX0 . ""9"" TFT" "display, 65536 colors"" PROFINET" interface



Figure similar

| General information | |
|--------------------------------|--|
| Product type designation | KTP900 Basic color PN |
| Display | |
| Design of display | TFT widescreen display, LED backlighting |
| Screen diagonal | 9 in |
| Display width | 198 mm |
| Display height | 111.7 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 | |

| | |
|--|---|
| <ul style="list-style-type: none"> • Function keys <ul style="list-style-type: none"> — Number of function keys — Number of function keys with LEDs • Keys with LED • System keys • Numeric keyboard • alphanumeric keyboard | <p>8</p> <p>0</p> <p>No</p> <p>No</p> <p>Yes; Onscreen keyboard</p> <p>Yes; Onscreen keyboard</p> |
| Touch operation | |
| <ul style="list-style-type: none"> • 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 | |
| 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 <ul style="list-style-type: none"> • Buzzer • Speaker | <p>Yes</p> <p>No</p> |
| Time of day | |
| Clock <ul style="list-style-type: none"> • Hardware clock (real-time) • Software clock • retentive | <p>Yes</p> <p>Yes</p> <p>Yes</p> |

- 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 |
| MPI | No |

Protocols (Ethernet)

- TCP/IP
- DHCP
- SNMP
- DCP
- LLDP

Yes

Yes

Yes

Yes

Yes

WEB characteristics

- HTTP
- HTML

No

No

Further protocols

- CAN
- EtherNet/IP
- MODBUS

No

Yes

Yes; Modicon (MODBUS TCP/IP)

Interrupts/diagnostics/status information

Diagnoses

- Diagnostic information readable

No

EMC

Emission of radio interference acc. to EN 55 011

- Limit class A, for use in industrial areas
- Limit class B, for use in residential areas

Yes

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 |
| 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 | |
| • min. | -20 °C |
| • max. | 60 °C |
| Altitude during operation relating to sea level | |
| • Installation altitude above sea level, max. | 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) |
| Relative humidity | |
| • 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 | |
| • 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 |
| • 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 | |
| • 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 | |
| • STEP 7 Basic (TIA Portal) | Yes; via integrated WinCC Basic (TIA Portal) |
| • STEP 7 Professional (TIA Portal) | Yes; via integrated WinCC Basic (TIA Portal) |
| • WinCC flexible Compact | No |
| • WinCC flexible Standard | No |

| | |
|-----------------------------------|-----|
| • WinCC flexible Advanced | No |
| • WinCC Basic (TIA Portal) | Yes |
| • WinCC Comfort (TIA Portal) | Yes |
| • WinCC Advanced (TIA Portal) | Yes |
| • WinCC Professional (TIA Portal) | Yes |

Languages

Online languages

| | |
|--------------------------------------|----|
| • Number of online/runtime languages | 10 |
|--------------------------------------|----|

Project languages

| | |
|-------------------------|----|
| • Languages per project | 32 |
|-------------------------|----|

Functionality under WinCC (TIA Portal)

| | |
|-----------|-----|
| Libraries | Yes |
|-----------|-----|

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|--------------------------------|----|
| Number of Visual Basic Scripts | No |
|--------------------------------|----|

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| Task planner | Yes |
|--------------|-----|

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|-------------------|----|
| • time-controlled | No |
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|-------------------|-----|
| • task-controlled | Yes |
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| Help system | Yes |
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| • Number of characters per info text | 500 |
|--------------------------------------|-----|

Message system

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|---------------------------|----|
| • Number of alarm classes | 32 |
|---------------------------|----|

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|--------------------------|-------|
| • Bit messages | |
| — Number of bit messages | 1 000 |

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|-----------------------------|----|
| • Analog messages | |
| — Number of analog messages | 25 |

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|-----------------------------|----|
| • S7 alarm number procedure | No |
|-----------------------------|----|

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|-----------------------|-----|
| • System messages HMI | Yes |
|-----------------------|-----|

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|--|---|
| • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 |
|--|---|

| | |
|------------------------------------|----|
| • Number of characters per message | 80 |
|------------------------------------|----|

| | |
|--|---|
| • Number of process values per message | 8 |
|--|---|

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|-------------------------|-----|
| • Acknowledgment groups | Yes |
|-------------------------|-----|

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| • Message indicator | Yes |
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| • Message buffer | Yes |
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|---------------------|-----|
| — Number of entries | 256 |
|---------------------|-----|

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|----------------------|-----|
| — Circulating buffer | Yes |
|----------------------|-----|

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|-------------|-----|
| — retentive | Yes |
|-------------|-----|

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| — maintenance-free | Yes |
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Recipe management

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| • Number of recipes | 50 |
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|---------------------------|-----|
| • Data records per recipe | 100 |
|---------------------------|-----|

| | |
|---------------------------|-----|
| • Entries per data record | 100 |
|---------------------------|-----|

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|--|---|
| • 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 |

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|--|---------------------------|
| • 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 | |
| — 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

| | |
|----------------------------|--------|
| Width of the housing front | 267 mm |
| Height of housing front | 182 mm |
| Mounting cutout, width | 251 mm |
| Mounting cutout, height | 166 mm |
| Overall depth | 55 mm |

Weights

| | |
|--------------------------|---------|
| Weight without packaging | 1 130 g |
| Weight incl. packaging | 1 393 g |

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