

\*\*\*spare part\*\*\* SIPLUS HMI KTP1000 Basic Color PN based on 6AV6647-0AF11-3AX0 with conformal coating, 0...+50 °C,



| General information                                                   |                        |
|-----------------------------------------------------------------------|------------------------|
| Product type designation                                              | KTP1000 Basic color PN |
| Display                                                               |                        |
| Design of display                                                     | TFT                    |
| Screen diagonal                                                       | 10.4 in                |
| Display width                                                         | 211.2 mm               |
| Display height                                                        | 158.4 mm               |
| Number of colors                                                      | 256                    |
| Resolution (pixels)                                                   |                        |
| • Horizontal image resolution                                         | 640 pixel              |
| • Vertical image resolution                                           | 480 pixel              |
| Backlighting                                                          |                        |
| • MTBF backlighting (at 25 °C)                                        | 50 000 h               |
| 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 position                                                     | vertical               |
| Rack mounting                                                         | No                     |
| Wall mounting/direct mounting                                         | No                     |
| maximum permissible angle of inclination without external ventilation | 35°                    |
| Supply voltage                                                        |                        |
| Type of supply voltage                                                | DC                     |
| permissible range, lower limit (DC)                                   | 19.2 V                 |
| permissible range, upper limit (DC)                                   | 28.8 V                 |
| Input current                                                         |                        |
| Starting current inrush I <sup>st</sup>                               | 0.2 A <sup>2</sup> ·s  |
| Processor                                                             |                        |
| Processor type                                                        | RISC 32 bit            |
| Memory                                                                |                        |
| Flash                                                                 | Yes                    |

|                                                                     |                                                                                                                                                                                                                 |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RAM                                                                 | Yes                                                                                                                                                                                                             |
| Memory available for user data                                      | 1 024 kbyte                                                                                                                                                                                                     |
| <b>Type of output</b>                                               |                                                                                                                                                                                                                 |
| Acoustics                                                           | Sound signal                                                                                                                                                                                                    |
| <b>Time of day</b>                                                  |                                                                                                                                                                                                                 |
| Clock                                                               |                                                                                                                                                                                                                 |
| • Software clock                                                    | Yes                                                                                                                                                                                                             |
| <b>Interfaces</b>                                                   |                                                                                                                                                                                                                 |
| 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                                            | 0                                                                                                                                                                                                               |
| Number of 20 mA interfaces (TTY)                                    | 0                                                                                                                                                                                                               |
| Number of parallel interfaces                                       | 0                                                                                                                                                                                                               |
| Number of other interfaces                                          | 0                                                                                                                                                                                                               |
| With software interfaces                                            | No                                                                                                                                                                                                              |
| <b>Industrial Ethernet</b>                                          |                                                                                                                                                                                                                 |
| • Industrial Ethernet status LED                                    | 2                                                                                                                                                                                                               |
| <b>Protocols</b>                                                    |                                                                                                                                                                                                                 |
| PROFINET                                                            | Yes                                                                                                                                                                                                             |
| Supports protocol for PROFINET IO                                   | No                                                                                                                                                                                                              |
| PROFIBUS                                                            | No                                                                                                                                                                                                              |
| EtherNet/IP                                                         | Yes                                                                                                                                                                                                             |
| MPI                                                                 | No                                                                                                                                                                                                              |
| <b>Protocols (Ethernet)</b>                                         |                                                                                                                                                                                                                 |
| • TCP/IP                                                            | Yes                                                                                                                                                                                                             |
| • DHCP                                                              | Yes                                                                                                                                                                                                             |
| • SNMP                                                              | Yes                                                                                                                                                                                                             |
| • DCP                                                               | Yes                                                                                                                                                                                                             |
| • LLDP                                                              | Yes                                                                                                                                                                                                             |
| <b>Further protocols</b>                                            |                                                                                                                                                                                                                 |
| • MODBUS                                                            | Yes                                                                                                                                                                                                             |
| <b>Degree and class of protection</b>                               |                                                                                                                                                                                                                 |
| IP (at the front)                                                   | IP65                                                                                                                                                                                                            |
| IP (rear)                                                           | IP20                                                                                                                                                                                                            |
| <b>Ambient conditions</b>                                           |                                                                                                                                                                                                                 |
| Suited for indoor use                                               | Yes                                                                                                                                                                                                             |
| Suited for outdoor use                                              | No                                                                                                                                                                                                              |
| <b>Ambient temperature during operation</b>                         |                                                                                                                                                                                                                 |
| 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                                                                                                                                                                                                           |
| <b>Ambient temperature during storage/transportation</b>            |                                                                                                                                                                                                                 |
| • min.                                                              | -20 °C                                                                                                                                                                                                          |
| • max.                                                              | 60 °C                                                                                                                                                                                                           |
| <b>Altitude during operation relating to sea level</b>              |                                                                                                                                                                                                                 |
| • 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) |
| <b>Relative humidity</b>                                            |                                                                                                                                                                                                                 |
| • With condensation, tested in accordance with IEC 60068-2-38, max. | 100 %; RH incl. condensation/frost (no commissioning under condensation conditions)                                                                                                                             |
| <b>Resistance</b>                                                   |                                                                                                                                                                                                                 |
| Coolants and lubricants                                             |                                                                                                                                                                                                                 |
| — Resistant to commercially available coolants and lubricants       | Yes; Incl. diesel and oil droplets in the air                                                                                                                                                                   |
| <b>Use in stationary industrial systems</b>                         |                                                                                                                                                                                                                 |

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>— to biologically active substances according to EN 60721-3-3</li> <li>— to chemically active substances according to EN 60721-3-3</li> <li>— to mechanically active substances according to EN 60721-3-3</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            | <p>Yes; Class 3B2 mold, fungus and dry rot spores (with the exception of fauna); Class 3B3 on request</p> <p>Yes; Class 3C4 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 3S4 incl. sand, dust, *</p> |
| <b>Use on ships/at sea</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>— to biologically active substances according to EN 60721-3-6</li> <li>— to chemically active substances according to EN 60721-3-6</li> <li>— to mechanically active substances according to EN 60721-3-6</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            | <p>Yes; Class 6B2 mold and fungal spores (excluding fauna); Class 6B3 on request</p> <p>Yes; Class 6C3 (RH &lt; 75 %) incl. salt spray acc. to EN 60068-2-52 (severity degree 3); *</p> <p>Yes; Class 6S3 incl. sand, dust; *</p>                      |
| <b>Remark</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>— Note regarding classification of environmental conditions acc. to EN 60721, EN 60654-4 and ANSI/ISA-71.04</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | * The supplied plug covers must remain in place over the unused interfaces during operation!                                                                                                                                                           |
| <b>Conformal coating</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Coatings for printed circuit board assemblies acc. to EN 61086</li> <li>• Protection against fouling acc. to EN 60664-3</li> <li>• Military testing according to MIL-I-46058C, Amendment 7</li> <li>• Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A</li> </ul>                                                                                                                                                                                                                                                                        | <p>Yes; Class 2 for high reliability</p> <p>Yes; Type 1 protection</p> <p>Yes; Discoloration of coating possible during service life</p> <p>Yes; Conformal coating, Class A</p>                                                                        |
| <b>configuration / header</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                        |
| Message indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Yes                                                                                                                                                                                                                                                    |
| Alarm system (incl. buffer and acknowledgment)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yes                                                                                                                                                                                                                                                    |
| Process value display (output)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Yes                                                                                                                                                                                                                                                    |
| Process value default (input) possible                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes                                                                                                                                                                                                                                                    |
| Recipe management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Yes                                                                                                                                                                                                                                                    |
| <b>Languages</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                        |
| <b>Online languages</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Number of online/runtime languages</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5                                                                                                                                                                                                                                                      |
| <b>Project languages</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Languages per project</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 32                                                                                                                                                                                                                                                     |
| <b>Functionality under WinCC (TIA Portal)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                        |
| Libraries                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Yes                                                                                                                                                                                                                                                    |
| Applications/options                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | none                                                                                                                                                                                                                                                   |
| <ul style="list-style-type: none"> <li>• Web browser</li> <li>• SIMATIC WinCC Sm@rtServer</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | No                                                                                                                                                                                                                                                     |
| Task planner                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Yes                                                                                                                                                                                                                                                    |
| Help system                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Yes                                                                                                                                                                                                                                                    |
| <ul style="list-style-type: none"> <li>• Number of characters per info text</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 320                                                                                                                                                                                                                                                    |
| <b>Message system</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Number of alarm classes</li> <li>• Bit messages <ul style="list-style-type: none"> <li>— Number of bit messages</li> </ul> </li> <li>• Analog messages <ul style="list-style-type: none"> <li>— Number of analog messages</li> </ul> </li> <li>• System messages HMI</li> <li>• System event, more (SIMATIC S7, SINUMERIK, SIMOTION, ... )</li> <li>• Number of characters per message</li> <li>• Number of process values per message</li> <li>• Message indicator</li> <li>• Message buffer <ul style="list-style-type: none"> <li>— Number of entries</li> <li>— Circulating buffer</li> </ul> </li> </ul> | <p>32</p> <p>Yes</p> <p>200</p> <p>Yes</p> <p>15</p> <p>Yes</p> <p>No</p> <p>80</p> <p>8</p> <p>Yes</p> <p>Ring buffer (n x 256 entries), retentive, maintenance-free</p> <p>256</p> <p>Yes</p>                                                        |
| <b>Recipe management</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                        |
| <ul style="list-style-type: none"> <li>• Number of recipes</li> <li>• Data records per recipe</li> <li>• Entries per data record</li> <li>• Size of internal recipe memory</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <p>5</p> <p>20</p> <p>20</p> <p>40 kbyte</p>                                                                                                                                                                                                           |

|                                                        |                                            |
|--------------------------------------------------------|--------------------------------------------|
| • Recipe memory expandable                             | No                                         |
| <b>Variables</b>                                       |                                            |
| • Number of variables per device                       | 500                                        |
| • Number of variables per screen                       | 30                                         |
| • Limit values                                         | Yes                                        |
| • Multiplexing                                         | Yes                                        |
| • Structures                                           | No                                         |
| <b>Images</b>                                          |                                            |
| • Number of configurable images                        | 50                                         |
| • Permanent window/default                             | Yes; No permanent window can be configured |
| • Image selection by PLC                               | Yes                                        |
| • Image number in the PLC                              | Yes                                        |
| <b>Complex image objects</b>                           |                                            |
| • Status/control                                       | No                                         |
| <b>Lists</b>                                           |                                            |
| • Number of text lists per project                     | 150                                        |
| • Number of graphics lists per project                 | 100                                        |
| <b>Security</b>                                        |                                            |
| • Number of user groups                                | 50                                         |
| • Number of user rights                                | 32                                         |
| • Password export/import                               | No                                         |
| <b>Character sets</b>                                  |                                            |
| • Keyboard fonts                                       | US American (English)                      |
| — US English                                           | Yes                                        |
| <b>Transfer (upload/download)</b>                      |                                            |
| • MPI/PROFIBUS DP                                      | No                                         |
| • USB                                                  | No                                         |
| • Ethernet                                             | Yes                                        |
| • using external storage medium                        | No                                         |
| <b>Process coupling</b>                                |                                            |
| • S7-200                                               | Yes; Via CP                                |
| • S7-300/400                                           | Yes                                        |
| • WinAC                                                | No                                         |
| • SINUMERIK                                            | No                                         |
| • SIMOTION                                             | No                                         |
| • Allen Bradley (DF1)                                  | No                                         |
| • Mitsubishi (FX)                                      | No                                         |
| • OMRON (LINK/Multilink)                               | No                                         |
| • Modicon (Modbus)                                     | Yes; MODBUS TCP/IP protocol                |
| <b>Service tools/configuration aids</b>                |                                            |
| • Backup/Restore manually                              | Yes                                        |
| • Simulation                                           | Yes                                        |
| • Device switchover                                    | Yes                                        |
| <b>Peripherals/Options</b>                             |                                            |
| Peripherals                                            | none                                       |
| Printer                                                | No                                         |
| SIMATIC HMI MM memory card: Multi Media Card           | No                                         |
| SIMATIC HMI SD memory card: Secure Digital memory card | No                                         |
| USB memory                                             | No                                         |
| <b>Mechanics/material</b>                              |                                            |
| Enclosure material (front)                             |                                            |
| • Plastic                                              | Yes                                        |
| • Aluminum                                             | No                                         |
| <b>Dimensions</b>                                      |                                            |
| Width of the housing front                             | 335 mm                                     |
| Height of housing front                                | 275 mm                                     |
| Mounting cutout, width                                 | 310 mm                                     |
| Mounting cutout, height                                | 248 mm                                     |
| Overall depth                                          | 60 mm                                      |
| <b>Weights</b>                                         |                                            |

|                            |         |
|----------------------------|---------|
| Weight (without packaging) | 2.65 kg |
| Weight (with packaging)    | 3.38 kg |

**last modified:**

10/12/2023 