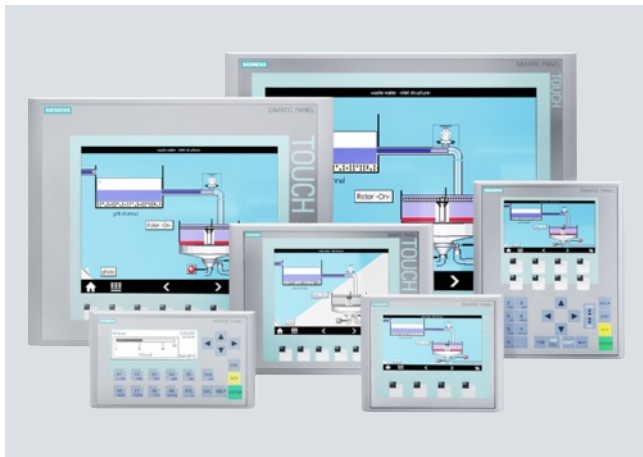


# Operator panels

## Basic Panels

### Basic Panels – Standard

#### Overview



- Ideal entry-level series from 3" to 15" for operating and monitoring compact machines and systems
- Clear process representation thanks to use of pixel-graphics displays
- Intuitive operation using Touch and tactile function keys
- Equipped with all the necessary basic functions such as alarm logging, recipe management, plots, vector graphics, and language switching
- Simple connection to the controller via integral Ethernet interface or separate version with RS 485/422
- Faster commissioning thanks to integrated diagnostics viewer and IP setting for SIMATIC S7-1200 and S7-1500 PLCs

#### Technical specifications

|                                            | 6AV6647-0AA11-3AX0<br>SIMATIC HMI KTP400<br>Basic mono PN | 6AV6647-0AK11-3AX0<br>SIMATIC HMI KTP400<br>Basic color PN | 6AV6647-0AB11-3AX0<br>SIMATIC HMI KTP600<br>Basic mono PN | 6AV6647-0AC11-3AX0<br>SIMATIC HMI KTP600<br>Basic color DP |
|--------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|
| <b>Display</b>                             |                                                           |                                                            |                                                           |                                                            |
| Design of display                          | STN                                                       | TFT                                                        | STN                                                       | TFT                                                        |
| Screen diagonal                            | 3.8 in                                                    | 4.3 in                                                     | 5.7 in                                                    | 5.7 in                                                     |
| Number of colors                           | 4; Grayscale                                              | 256                                                        | 4; Grayscale                                              | 256                                                        |
| Resolution (pixels)                        |                                                           |                                                            |                                                           |                                                            |
| • Horizontal image resolution              | 320                                                       | 480                                                        | 320                                                       | 320                                                        |
| • Vertical image resolution                | 240                                                       | 272                                                        | 240                                                       | 240                                                        |
| Backlighting                               |                                                           |                                                            |                                                           |                                                            |
| • MTBF backlighting (at 25 °C)             | 30 000 h                                                  | 50 000 h                                                   | 50 000 h                                                  | 50 000 h                                                   |
| • Dimmable backlight                       | No                                                        | No                                                         | No                                                        | No                                                         |
| <b>Control elements</b>                    |                                                           |                                                            |                                                           |                                                            |
| Keyboard fonts                             |                                                           |                                                            |                                                           |                                                            |
| • Number of function keys                  | 4                                                         | 4                                                          | 6                                                         | 6                                                          |
| Touch operation                            |                                                           |                                                            |                                                           |                                                            |
| • Design as touch screen                   | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Installation type/mounting</b>          |                                                           |                                                            |                                                           |                                                            |
| Mounting in portrait format possible       | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Supply voltage</b>                      |                                                           |                                                            |                                                           |                                                            |
| Type of supply voltage                     | DC                                                        | DC                                                         | DC                                                        | DC                                                         |
| Rated voltage/DC                           | 24 V                                                      | 24 V                                                       | 24 V                                                      | 24 V                                                       |
| <b>Memory</b>                              |                                                           |                                                            |                                                           |                                                            |
| Usable memory for user data                | 1 Mbyte                                                   | 1 Mbyte                                                    | 1 Mbyte                                                   | 1 Mbyte                                                    |
| <b>Type of output</b>                      |                                                           |                                                            |                                                           |                                                            |
| Acoustics                                  |                                                           |                                                            |                                                           |                                                            |
| • Buzzer                                   | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Time of day</b>                         |                                                           |                                                            |                                                           |                                                            |
| Clock                                      |                                                           |                                                            |                                                           |                                                            |
| • Software clock                           | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| • Battery-backed                           | No                                                        | No                                                         | No                                                        | No                                                         |
| • Synchronizable                           | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Interfaces</b>                          |                                                           |                                                            |                                                           |                                                            |
| Number of RS 485 interfaces                | 0                                                         | 0                                                          | 0                                                         | 1                                                          |
| Number of USB interfaces                   | 0                                                         | 0                                                          | 0                                                         | 0                                                          |
| Number of SD card slots                    | 0                                                         | 0                                                          | 0                                                         | 0                                                          |
| Industrial Ethernet                        |                                                           |                                                            |                                                           |                                                            |
| • Number of industrial Ethernet interfaces | 1                                                         | 1                                                          | 1                                                         | 0                                                          |

## Technical specifications (continued)

|                                                             | 6AV6647-0AA11-3AX0<br>SIMATIC HMI KTP400<br>Basic mono PN | 6AV6647-0AK11-3AX0<br>SIMATIC HMI KTP400<br>Basic color PN | 6AV6647-0AB11-3AX0<br>SIMATIC HMI KTP600<br>Basic mono PN | 6AV6647-0AC11-3AX0<br>SIMATIC HMI KTP600<br>Basic color DP |
|-------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|
| <b>Protocols</b>                                            |                                                           |                                                            |                                                           |                                                            |
| PROFINET                                                    | Yes                                                       | Yes                                                        | Yes                                                       | No                                                         |
| PROFIBUS                                                    | No                                                        | No                                                         | No                                                        | Yes                                                        |
| MPI                                                         | No                                                        | No                                                         | No                                                        | Yes                                                        |
| <b>Degree and class of protection</b>                       |                                                           |                                                            |                                                           |                                                            |
| Type of protection                                          | IP20                                                      | IP20                                                       | IP20                                                      | IP20                                                       |
| IP (at the front)                                           | IP65                                                      | IP65                                                       | IP65                                                      | IP65                                                       |
| Enclosure type 4x at the front                              | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Standards, approvals, certificates</b>                   |                                                           |                                                            |                                                           |                                                            |
| CE                                                          | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| cULus                                                       | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| GL                                                          | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| ABS                                                         | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| BV                                                          | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| DNV                                                         | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| LRS                                                         | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| Class NK                                                    | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| Use in hazardous areas                                      |                                                           |                                                            |                                                           |                                                            |
| • ATEX Zone 2                                               | No                                                        | No                                                         | No                                                        | No                                                         |
| • ATEX Zone 22                                              | No                                                        | No                                                         | No                                                        | No                                                         |
| • cULus Class I Zone 2, Division 2                          | No                                                        | No                                                         | No                                                        | No                                                         |
| • FM Class I Division 2                                     | No                                                        | No                                                         | No                                                        | No                                                         |
| <b>Ambient conditions</b>                                   |                                                           |                                                            |                                                           |                                                            |
| Operating temperature                                       |                                                           |                                                            |                                                           |                                                            |
| • Operation (vertical installation)                         |                                                           |                                                            |                                                           |                                                            |
| - in vertical mounting position/ minimum                    | 0 °C                                                      | 0 °C                                                       | 0 °C                                                      | 0 °C                                                       |
| - in vertical mounting position/ maximum                    | 50 °C                                                     | 50 °C                                                      | 50 °C                                                     | 50 °C                                                      |
| Relative humidity                                           |                                                           |                                                            |                                                           |                                                            |
| • max. relative humidity                                    | 90 %                                                      | 90 %                                                       | 90 %                                                      | 90 %                                                       |
| <b>Configuration</b>                                        |                                                           |                                                            |                                                           |                                                            |
| Configuration software                                      |                                                           |                                                            |                                                           |                                                            |
| • STEP 7 Basic (TIA Portal)                                 | Yes; via integrated WinCC Basic (TIA Portal)              | Yes; via integrated WinCC Basic (TIA Portal)               | Yes; via integrated WinCC Basic (TIA Portal)              | Yes; via integrated WinCC Basic (TIA Portal)               |
| • WinCC flexible Compact                                    | Yes                                                       | No                                                         | Yes                                                       | Yes                                                        |
| • WinCC Basic (TIA Portal)                                  | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Languages</b>                                            |                                                           |                                                            |                                                           |                                                            |
| Online languages                                            |                                                           |                                                            |                                                           |                                                            |
| • Number of online/runtime languages                        | 5                                                         | 5                                                          | 5                                                         | 5                                                          |
| <b>Functionality under WinCC (TIA Portal)</b>               |                                                           |                                                            |                                                           |                                                            |
| Task planner                                                |                                                           |                                                            |                                                           |                                                            |
| • time-controlled                                           | No                                                        | No                                                         | No                                                        | No                                                         |
| • task-controlled                                           | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| With alarm logging system (incl. buffer and acknowledgment) |                                                           |                                                            |                                                           |                                                            |
| • Number of bit messages                                    | 200                                                       | 200                                                        | 200                                                       | 200                                                        |
| • Number of analog messages                                 | 15                                                        | 15                                                         | 15                                                        | 15                                                         |
| • Message buffer                                            |                                                           |                                                            |                                                           |                                                            |
| - Number of entries                                         | 256                                                       | 256                                                        | 256                                                       | 256                                                        |
| - Circulating buffer                                        | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| - retentive                                                 | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| Recipes                                                     |                                                           |                                                            |                                                           |                                                            |
| • Number of recipes                                         | 5                                                         | 5                                                          | 5                                                         | 5                                                          |
| • Size of internal recipe memory                            | 40 kbyte                                                  | 40 kbyte                                                   | 40 kbyte                                                  | 40 kbyte                                                   |
| • Recipe memory expandable                                  | No                                                        | No                                                         | No                                                        | No                                                         |

# Operator panels

## Basic Panels

### Basic Panels – Standard

#### Technical specifications (continued)

|                                  | 6AV6647-0AA11-3AX0<br>SIMATIC HMI KTP400<br>Basic mono PN | 6AV6647-0AK11-3AX0<br>SIMATIC HMI KTP400<br>Basic color PN | 6AV6647-0AB11-3AX0<br>SIMATIC HMI KTP600<br>Basic mono PN | 6AV6647-0AC11-3AX0<br>SIMATIC HMI KTP600<br>Basic color DP |
|----------------------------------|-----------------------------------------------------------|------------------------------------------------------------|-----------------------------------------------------------|------------------------------------------------------------|
| Variables                        |                                                           |                                                            |                                                           |                                                            |
| • Number of variables per device | 250                                                       | 500                                                        | 500                                                       | 500                                                        |
| • Number of variables per screen | 30                                                        | 30                                                         | 30                                                        | 30                                                         |
| Images                           |                                                           |                                                            |                                                           |                                                            |
| • Number of configurable images  | 50                                                        | 50                                                         | 50                                                        | 50                                                         |
| Archiving                        |                                                           |                                                            |                                                           |                                                            |
| • Number of archives per device  | 0                                                         | 0                                                          | 0                                                         | 0                                                          |
| Security                         |                                                           |                                                            |                                                           |                                                            |
| • Number of user groups          | 50                                                        | 50                                                         | 50                                                        | 50                                                         |
| • Number of users                | 50                                                        | 50                                                         | 50                                                        | 50                                                         |
| Transfer (upload/download)       |                                                           |                                                            |                                                           |                                                            |
| • MPI/PROFIBUS DP                | No                                                        | No                                                         | No                                                        | Yes                                                        |
| • Ethernet                       | Yes                                                       | Yes                                                        | Yes                                                       | No                                                         |
| Process coupling                 |                                                           |                                                            |                                                           |                                                            |
| • S7-1200                        | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| • S7-1500                        | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| • S7-200                         | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| • S7-300/400                     | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| • LOGO!                          | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| • Win AC                         | Yes                                                       | No                                                         | Yes                                                       | Yes                                                        |
| • SIMOTION                       | No                                                        | No                                                         | No                                                        | No                                                         |
| • Allen Bradley (EtherNet/IP)    | Yes                                                       | Yes                                                        | Yes                                                       | No                                                         |
| • Allen Bradley (DF1)            | No                                                        | No                                                         | No                                                        | Yes                                                        |
| • Mitsubishi (MC TCP/IP)         | Yes                                                       | Yes                                                        | Yes                                                       | No                                                         |
| • Mitsubishi (FX)                | No                                                        | No                                                         | No                                                        | Yes                                                        |
| • OMRON (FINS TCP)               | No                                                        | No                                                         | No                                                        | No                                                         |
| • OMRON (LINK/Multilink)         | No                                                        | No                                                         | No                                                        | Yes                                                        |
| • Modicon (Modbus TCP/IP)        | Yes                                                       | Yes                                                        | Yes                                                       | No                                                         |
| • Modicon (Modbus)               | No                                                        | No                                                         | No                                                        | Yes                                                        |
| I/O                              |                                                           |                                                            |                                                           |                                                            |
| I/O devices                      |                                                           |                                                            |                                                           |                                                            |
| • Printer                        | No                                                        | No                                                         | No                                                        | No                                                         |
| • Multi Media Card               | No                                                        | No                                                         | No                                                        | No                                                         |
| • SD card                        | No                                                        | No                                                         | No                                                        | No                                                         |
| • USB memory                     | No                                                        | No                                                         | No                                                        | No                                                         |
| <b>Mechanics/material</b>        |                                                           |                                                            |                                                           |                                                            |
| Type of housing (front)          |                                                           |                                                            |                                                           |                                                            |
| • Plastic                        | Yes                                                       | Yes                                                        | Yes                                                       | Yes                                                        |
| <b>Dimensions</b>                |                                                           |                                                            |                                                           |                                                            |
| Width of the housing front       | 140 mm                                                    | 140 mm                                                     | 214 mm                                                    | 214 mm                                                     |
| Height of housing front          | 116 mm                                                    | 116 mm                                                     | 158 mm                                                    | 158 mm                                                     |
| Mounting cutout (W x H x D)      |                                                           |                                                            |                                                           |                                                            |
| • Mounting cutout, width         | 123 mm                                                    | 123 mm                                                     | 197 mm                                                    | 197 mm                                                     |
| • Mounting cutout, height        | 99 mm                                                     | 99 mm                                                      | 141 mm                                                    | 141 mm                                                     |
| <b>Weight</b>                    |                                                           |                                                            |                                                           |                                                            |
| Weight without packaging         | 0.32 kg                                                   | 0.34 kg                                                    | 1.07 kg                                                   | 1.07 kg                                                    |