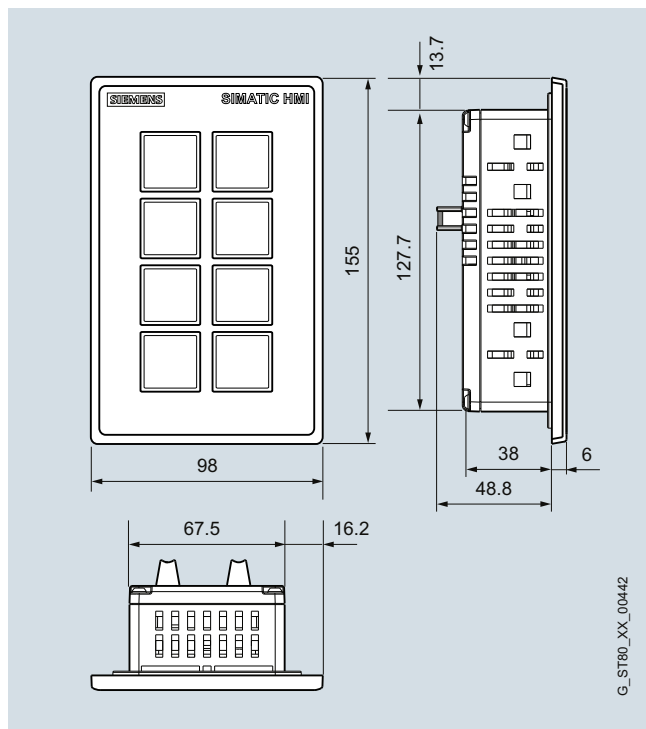
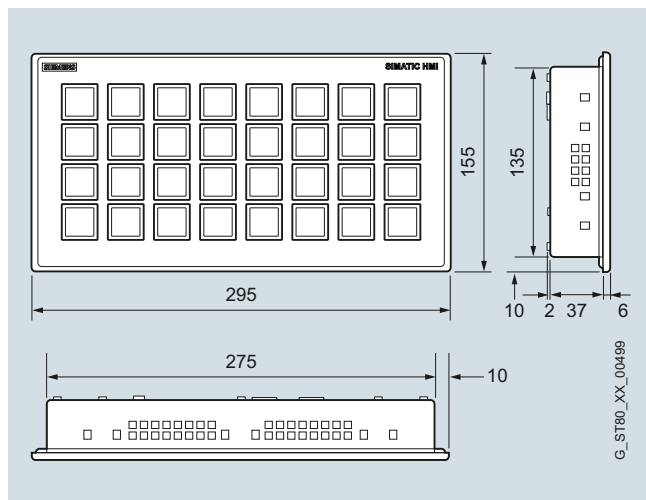


### Dimensional drawings

All dimensions in mm. For installation cutout, see technical specifications.



SIMATIC HMI Key Panel KP8; installation dimensions also valid for empty front design



SIMATIC HMI Key Panel KP32F

### More information

Additional information is available on the Internet at:

<http://www.siemens.com/simatic-key-panels>

For accessories, please refer to SIMATIC HMI accessories.

#### Note:

Do you need a specific modification or extension to the products described here? If so, refer to "Customized Automation". There you will find information about additional and generally available sector-specific products as well as options for customer-specific modification and adaptation.

## Operator panels

### SIMATIC HMI Basic Panels

#### SIMATIC HMI Basic Panels (2nd Generation)

##### Overview



SIMATIC HMI Basic Panels, 2<sup>nd</sup> generation

With their fully developed HMI basic functions, 2<sup>nd</sup> generation SIMATIC HMI Basic Panels are the ideal entry level series for simple HMI applications.

The device family offers panels with 4", 7", 9" and 12" widescreen displays, as well as combined key and touch operation.

The innovative high-resolution widescreen displays with 64 000 colors are also suitable for upright installation, and they can be dimmed down to 100 %.

The innovative operator interface with improved usability opens up a diverse range of options thanks to new controls and graphics. The new USB interface enables the connection of keyboard, mouse or barcode scanner, and supports the simple archiving of data on a USB stick.

The integrated Ethernet or RS 485/422 interface (version-specific) enables simple connection to the controller.

##### Technical specifications

| Article number                       | <b>6AV2123-2DB03-0AX0</b><br>SIMATIC HMI KTP400 BASIC | <b>6AV2123-2GB03-0AX0</b><br>SIMATIC HMI KTP700 BASIC | <b>6AV2123-2GA03-0AX0</b><br>SIMATIC HMI KTP700 BASIC DP |
|--------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|
| <b>Product type designation</b>      |                                                       |                                                       |                                                          |
| <b>Display</b>                       |                                                       |                                                       |                                                          |
| Design of display                    | TFT widescreen display, LED backlighting              | TFT widescreen display, LED backlighting              | TFT widescreen display, LED backlighting                 |
| Screen diagonal                      | 4.3 in                                                | 7 in                                                  | 7 in                                                     |
| Number of colors                     | 65 536                                                | 65 536                                                | 65 536                                                   |
| <b>Resolution (pixels)</b>           |                                                       |                                                       |                                                          |
| • Horizontal image resolution        | 480 Pixel                                             | 800 Pixel                                             | 800 Pixel                                                |
| • Vertical image resolution          | 272 Pixel                                             | 480 Pixel                                             | 480 Pixel                                                |
| <b>Backlighting</b>                  |                                                       |                                                       |                                                          |
| • MTBF backlighting (at 25 °C)       | 20 000 h                                              | 20 000 h                                              | 20 000 h                                                 |
| • Backlight dimmable                 | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Control elements</b>              |                                                       |                                                       |                                                          |
| <b>Keyboard</b>                      |                                                       |                                                       |                                                          |
| • Function keys                      |                                                       |                                                       |                                                          |
| - Number of function keys            | 4                                                     | 8                                                     | 8                                                        |
| <b>Touch operation</b>               |                                                       |                                                       |                                                          |
| • Design as touch screen             | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Installation type/mounting</b>    |                                                       |                                                       |                                                          |
| Mounting in portrait format possible | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Supply voltage</b>                |                                                       |                                                       |                                                          |
| Type of supply voltage               | DC                                                    | DC                                                    | 24 V DC                                                  |
| Rated value (DC)                     | 24 V                                                  | 24 V                                                  | 24 V                                                     |
| <b>Memory</b>                        |                                                       |                                                       |                                                          |
| usable memory for user data          | 10 Mbyte                                              | 10 Mbyte                                              | 10 Mbyte                                                 |
| <b>Type of output</b>                |                                                       |                                                       |                                                          |
| <b>Acoustics</b>                     |                                                       |                                                       |                                                          |
| • Buzzer                             | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Time of day</b>                   |                                                       |                                                       |                                                          |
| <b>Clock</b>                         |                                                       |                                                       |                                                          |
| • Software clock                     | Yes                                                   | Yes                                                   | Yes                                                      |
| • battery-backed                     | Yes                                                   | Yes                                                   | Yes                                                      |
| • synchronizable                     | Yes                                                   | Yes                                                   | Yes                                                      |

**Technical specifications (continued)**

| Article number                              | <b>6AV2123-2DB03-0AX0</b><br>SIMATIC HMI KTP400 BASIC | <b>6AV2123-2GB03-0AX0</b><br>SIMATIC HMI KTP700 BASIC | <b>6AV2123-2GA03-0AX0</b><br>SIMATIC HMI KTP700 BASIC DP |
|---------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|
| <b>Interfaces</b>                           |                                                       |                                                       |                                                          |
| Number of RS 485 interfaces                 | 0                                                     | 0                                                     | 1                                                        |
| Number of USB interfaces                    | 1; Up to 16 GB                                        | 1; Up to 16 GB                                        | 1; Up to 16 GB                                           |
| Number of SD card slots                     | 0                                                     | 0                                                     | 0                                                        |
| <b>Industrial Ethernet</b>                  |                                                       |                                                       |                                                          |
| • Number of industrial Ethernet interfaces  | 1                                                     | 1                                                     | 0                                                        |
| <b>Protocols</b>                            |                                                       |                                                       |                                                          |
| PROFINET                                    | Yes                                                   | Yes                                                   | No                                                       |
| IRT                                         | No                                                    | No                                                    | No                                                       |
| MRP                                         | No                                                    | No                                                    | No                                                       |
| PROFIBUS                                    | No                                                    | No                                                    | Yes                                                      |
| MPI                                         | No                                                    | No                                                    | Yes                                                      |
| <b>Degree and class of protection</b>       |                                                       |                                                       |                                                          |
| IP (at the front)                           | 65                                                    | 65                                                    | 65                                                       |
| Enclosure Type 4x at the front              | Yes                                                   | Yes                                                   | Yes                                                      |
| IP (rear)                                   | 20                                                    | 20                                                    | 20                                                       |
| <b>Standards, approvals, certificates</b>   |                                                       |                                                       |                                                          |
| CE mark                                     | Yes                                                   | Yes                                                   | Yes                                                      |
| cULus                                       | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Use in hazardous areas</b>               |                                                       |                                                       |                                                          |
| • ATEX Zone 2                               | No                                                    | No                                                    | No                                                       |
| • ATEX Zone 22                              | No                                                    | No                                                    | No                                                       |
| • IECEx Zone 2                              | No                                                    | No                                                    | No                                                       |
| • IECEx Zone 22                             | No                                                    | No                                                    | No                                                       |
| • cULus Class I Zone 2, Division 2          | No                                                    | No                                                    | No                                                       |
| • FM Class I Division 2                     | No                                                    | No                                                    | No                                                       |
| <b>Ambient conditions</b>                   |                                                       |                                                       |                                                          |
| <b>Ambient temperature during operation</b> |                                                       |                                                       |                                                          |
| • Operation (vertical installation)         |                                                       |                                                       |                                                          |
| - For vertical installation, min.           | 0 °C                                                  | 0 °C                                                  | 0 °C                                                     |
| - For vertical installation, max.           | 50 °C                                                 | 50 °C                                                 | 50 °C                                                    |
| <b>Relative humidity</b>                    |                                                       |                                                       |                                                          |
| • Operation, max.                           | 90 %; no condensation                                 | 90 %; no condensation                                 | 90 %; no condensation                                    |
| <b>Configuration</b>                        |                                                       |                                                       |                                                          |
| <b>Configuration software</b>               |                                                       |                                                       |                                                          |
| • 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)             |
| • WinCC flexible Compact                    | No                                                    | No                                                    | No                                                       |
| • WinCC Basic (TIA Portal)                  | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Languages</b>                            |                                                       |                                                       |                                                          |
| <b>Online languages</b>                     |                                                       |                                                       |                                                          |
| • Number of online/runtime languages        | 10                                                    | 10                                                    | 10                                                       |

## Operator panels

### SIMATIC HMI Basic Panels

#### SIMATIC HMI Basic Panels (2nd Generation)

##### Technical specifications (continued)

| Article number                                                   | 6AV2123-2DB03-0AX0<br>SIMATIC HMI KTP400 BASIC                | 6AV2123-2GB03-0AX0<br>SIMATIC HMI KTP700 BASIC                | 6AV2123-2GA03-0AX0<br>SIMATIC HMI KTP700 BASIC DP             |
|------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
| <b>Functionality under WinCC (TIA Portal)</b>                    |                                                               |                                                               |                                                               |
| Applications/options                                             |                                                               |                                                               |                                                               |
| • Web browser                                                    | Yes                                                           | Yes                                                           | Yes                                                           |
| Number of Visual Basic Scripts                                   | No                                                            | No                                                            | No                                                            |
| Task planner                                                     | Yes                                                           | Yes                                                           | Yes                                                           |
| • time-controlled                                                | No                                                            | No                                                            | No                                                            |
| • task-controlled                                                | Yes                                                           | Yes                                                           | Yes                                                           |
| <b>Message system</b>                                            |                                                               |                                                               |                                                               |
| • Bit messages                                                   |                                                               |                                                               |                                                               |
| - Number of bit messages                                         | 1 000                                                         | 1 000                                                         | 1 000                                                         |
| • Analog messages                                                |                                                               |                                                               |                                                               |
| - Number of analog messages                                      | 25                                                            | 25                                                            | 25                                                            |
| • S7 alarm number procedure                                      | No                                                            | No                                                            | No                                                            |
| • System messages, other (SIMATIC S7, Sinumerik, Simotion, etc.) | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 | Yes; System message buffer of the SIMATIC S7-1200 and S7-1500 |
| • Message buffer                                                 |                                                               |                                                               |                                                               |
| - Number of entries                                              | 256                                                           | 256                                                           | 256                                                           |
| - Circulating buffer                                             | Yes                                                           | Yes                                                           | Yes                                                           |
| - retentive                                                      | Yes                                                           | Yes                                                           | Yes                                                           |
| <b>Recipe administration</b>                                     |                                                               |                                                               |                                                               |
| • Number of recipes                                              | 50                                                            | 50                                                            | 50                                                            |
| • Size of internal recipe memory                                 | 256 kbyte                                                     | 256 kbyte                                                     | 256 kbyte                                                     |
| • Recipe memory expandable                                       | No                                                            | No                                                            | No                                                            |
| <b>Variables</b>                                                 |                                                               |                                                               |                                                               |
| • Number of variables per device                                 | 800                                                           | 800                                                           | 800                                                           |
| • Number of variables per screen                                 | 100                                                           | 100                                                           | 100                                                           |
| <b>Images</b>                                                    |                                                               |                                                               |                                                               |
| • Number of configurable images                                  | 250                                                           | 250                                                           | 100                                                           |
| <b>Archiving</b>                                                 |                                                               |                                                               |                                                               |
| • Number of archives per device                                  | 2                                                             | 2                                                             | 2                                                             |
| • Number of entries per archive                                  | 10 000                                                        | 10 000                                                        | 10 000                                                        |
| • Message archive                                                | Yes                                                           | Yes                                                           | Yes                                                           |
| • Process value archive                                          | Yes                                                           | Yes                                                           | Yes                                                           |
| • Archiving methods                                              |                                                               |                                                               |                                                               |
| - Sequential archive                                             | Yes                                                           | Yes                                                           | Yes                                                           |
| - Short-term archive                                             | Yes                                                           | Yes                                                           | Yes                                                           |
| • Memory location                                                |                                                               |                                                               |                                                               |
| - Memory card                                                    | No                                                            | No                                                            | No                                                            |
| - USB memory                                                     | Yes                                                           | Yes                                                           | Yes                                                           |
| - Ethernet                                                       | No                                                            | No                                                            | No                                                            |
| • Data storage format                                            |                                                               |                                                               |                                                               |
| - CSV                                                            | No                                                            | No                                                            | No                                                            |
| - TXT                                                            | Yes                                                           | Yes                                                           | Yes                                                           |
| - RDB                                                            | No                                                            | No                                                            | No                                                            |
| <b>Security</b>                                                  |                                                               |                                                               |                                                               |
| • Number of user groups                                          | 50                                                            | 50                                                            | 50                                                            |
| • Number of users                                                | 50                                                            | 50                                                            | 50                                                            |
| <b>Transfer (upload/download)</b>                                |                                                               |                                                               |                                                               |
| • MPI/PROFIBUS DP                                                | No                                                            | No                                                            | Yes                                                           |
| • Ethernet                                                       | Yes                                                           | Yes                                                           | No                                                            |

**Technical specifications** (continued)

| Article number                | <b>6AV2123-2DB03-0AX0</b><br>SIMATIC HMI KTP400 BASIC | <b>6AV2123-2GB03-0AX0</b><br>SIMATIC HMI KTP700 BASIC | <b>6AV2123-2GA03-0AX0</b><br>SIMATIC HMI KTP700 BASIC DP |
|-------------------------------|-------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------|
| <b>Process coupling</b>       |                                                       |                                                       |                                                          |
| • S7-1200                     | Yes                                                   | Yes                                                   | Yes                                                      |
| • S7-1500                     | Yes                                                   | Yes                                                   | Yes                                                      |
| • S7-200                      | Yes                                                   | Yes                                                   | Yes                                                      |
| • S7-300/400                  | Yes                                                   | Yes                                                   | Yes                                                      |
| • LOGO!                       | Yes                                                   | Yes                                                   | Yes                                                      |
| • WinAC                       | Yes                                                   | Yes                                                   | Yes                                                      |
| • SIMOTION                    | Yes                                                   | Yes                                                   | Yes                                                      |
| • Allen Bradley (EtherNet/IP) | Yes                                                   | Yes                                                   | No                                                       |
| • Allen Bradley (DF1)         | No                                                    | No                                                    | Yes                                                      |
| • Mitsubishi (MC TCP/IP)      | Yes                                                   | Yes                                                   | No                                                       |
| • Mitsubishi (FX)             | No                                                    | No                                                    | Yes                                                      |
| • OMRON (FINS TCP)            | No                                                    | No                                                    | No                                                       |
| • OMRON (LINK/Multilink)      | No                                                    | No                                                    | Yes                                                      |
| • Modicon (Modbus TCP/IP)     | Yes                                                   | Yes                                                   | No                                                       |
| • Modicon (Modbus)            | No                                                    | No                                                    | Yes                                                      |
| <b>Peripherals/Options</b>    |                                                       |                                                       |                                                          |
| Peripherals                   |                                                       |                                                       |                                                          |
| • Printer                     | No                                                    | No                                                    | No                                                       |
| • MultiMediaCard              | No                                                    | No                                                    | No                                                       |
| • SD card                     | No                                                    | No                                                    | No                                                       |
| • USB memory                  | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Mechanics/material</b>     |                                                       |                                                       |                                                          |
| Type of housing (front)       |                                                       |                                                       |                                                          |
| • plastic                     | Yes                                                   | Yes                                                   | Yes                                                      |
| <b>Dimensions</b>             |                                                       |                                                       |                                                          |
| Width of the housing front    | 141 mm                                                | 214 mm                                                | 214 mm                                                   |
| Height of housing front       | 116 mm                                                | 158 mm                                                | 158 mm                                                   |
| Mounting cutout, width        | 123 mm                                                | 197 mm                                                | 197 mm                                                   |
| Mounting cutout, height       | 99 mm                                                 | 141 mm                                                | 141 mm                                                   |
| Overall depth                 | 33 mm                                                 | 39 mm                                                 | 39 mm                                                    |
| <b>Weights</b>                |                                                       |                                                       |                                                          |
| Without packaging             | 360 g                                                 | 780 g                                                 | 800 g                                                    |

# Operator panels

## SIMATIC HMI Basic Panels

### SIMATIC HMI Basic Panels (2nd Generation)

#### Ordering data

#### Article No.

#### SIMATIC HMI Basic Panels, Key and Touch

##### SIMATIC HMI KTP400 Basic

6AV2123-2DB03-0AX0

Key/touch-screen operation; 4" TFT widescreen display, 65 536 colors, PROFINET interface

##### SIMATIC HMI KTP700 Basic

6AV2123-2GB03-0AX0

Key/touch-screen operation; 7" TFT display, 65 536 colors, PROFINET interface

##### SIMATIC HMI KTP700 Basic DP

6AV2123-2GA03-0AX0

Key/touch-screen operation; 7" TFT display, 65 536 colors, PROFIBUS interface

##### SIMATIC HMI KTP900 Basic

6AV2123-2JB03-0AX0

Key/touch-screen operation; 9" TFT display, 65 536 colors, PROFINET interface

##### SIMATIC HMI KTP1200 Basic

6AV2123-2MB03-0AX0

Key/touch-screen operation; 12" TFT display, 65 536 colors, PROFINET interface

##### SIMATIC HMI KTP1200 Basic DP

6AV2123-2MA03-0AX0

Key/touch-screen operation; 12" TFT display, 65 536 colors, PROFIBUS interface

#### Starter kits

##### Starter kit SIMATIC S7-1200 + KP300 Basic mono PN

6AV6651-7HA01-3AA4

##### Starter Kit SIMATIC S7-1200 + KTP400 Basic

6AV6651-7KA01-3AA4

##### Starter Kit SIMATIC S7-1200 + KTP700 Basic

6AV6651-7DA01-3AA4

Starter kits with an S7-1200 consist of:

- the respective SIMATIC HMI Basic Panel
- SIMATIC HMI KP300 Basic mono PN
- SIMATIC HMI KTP400 Basic
- SIMATIC HMI KTP700 Basic
- SIMATIC S7-1200 CPU 1212C AC/DC/Rly
- SIMATIC S7-1200 Simulator Module SIM 12
- SIMATIC STEP 7 BASIC CD
- SIMATIC S7-1200 HMI Manual Collection CD
- Ethernet CAT5 cable, 2 m

##### Starter kit LOGO! + KP300 Basic mono PN

6AV2132-0HA00-0AA1

##### Starter kit LOGO! + KTP400 Basic

6AV2132-0KA00-0AA1

##### Starter kit LOGO! + KTP700 Basic

6AV2132-3GB00-0AA1

Starter kits with a LOGO! consist of:

- the respective SIMATIC HMI Basic Panel
- SIMATIC HMI KP300 Basic mono PN
- SIMATIC HMI KTP400 Basic
- SIMATIC HMI KTP700 Basic
- LOGO! 12/24 RCE
- LOGO! POWER 24 V 1.3 A
- LOGO! SOFT COMFORT V7
- WINCC BASIC (TIA Portal)
- Ethernet CAT5 cable, 2 m

#### Documentation

You can find the manual for the Basic Panels on the Internet at:

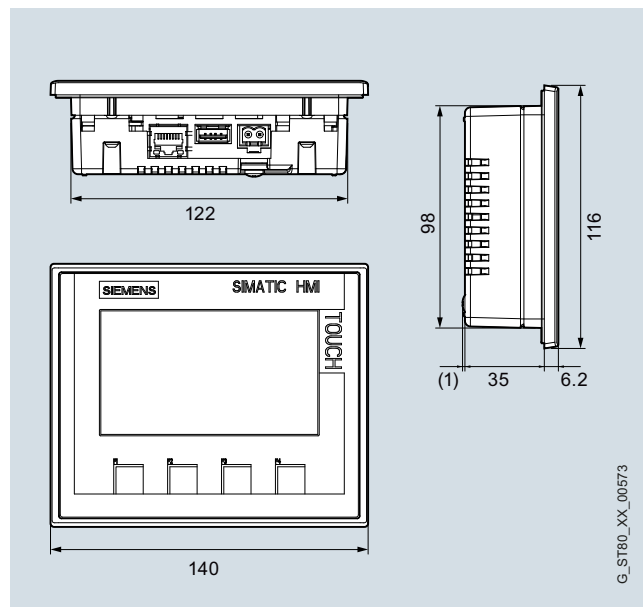
<http://support.automation.siemens.com>

#### Accessories

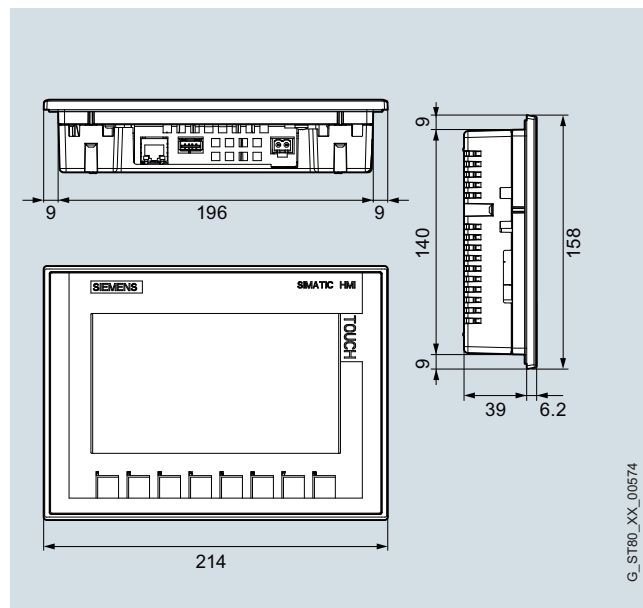
See SIMATIC HMI accessories, chapter 7

#### Dimensional drawings

All dimensions in mm. For installation cutout, see technical specifications.



KTP400 Basic, Basic Panel 2<sup>nd</sup> generation



KTP700 Basic, Basic Panel 2<sup>nd</sup> Generation