

Touch control TC5

5WG1205-2AB12, 5WG1205-2AB22



Multi-functional display and control unit with KNX S-Mode

- Operation via 5 inch color touch screen
 - Control of lighting, blinds, and scenes
 - Room temperature PI controller and/or ventilation
 - Interface and operation for VRF devices (VRF: Variable refrigerant flow)
 - Display of temperature, humidity, air quality, energy metering value, rain, etc.
- Mounting in horizontal as well as vertical
- Schedule, event management, alarm handling, human-centric lighting (HCL) and basic logic functions
- Configurable navigation for up to 15 function pages
- Administrator function via password or bus objects
- Proximity sensor, adjustment of screen brightness, buzzer
- Customization possible for wallpaper, screensaver, and configurable icons
- Mounting on both round and square conduit boxes, 60 mm fixing centers

The touch control TC5 (hereinafter referred to as TC5) is a KNX S-Mode multi-functional touch panel for display, operation and control. The device offers a 5-inch color capacitive touch screen at a resolution of 480 × 854.

The device is powered over KNX and DC 24...30 V auxiliary supply voltage.

It is operated directly via touch screen and provides a total of 15 function pages and 5 home pages that are configured via ETS (ETS5.7 or later).

The device can be horizontally and vertically mounted and operated.

Functions:

- Home page (navigation)
TC5 can set up multiple function pages for control and operation. Max. 5 home pages with max. 8 icons allow easy navigation to the desired function page. The navigation function can be enabled/disabled, but if disabled, the device goes to the first configured function page.
- Multi-function page for lighting, solar protection, scene control, send value and display value or text
 - Lighting control includes switching and dimming.
 - Brightness + color temperature: Brightness dimming and color temperature control
 - Solar protection covers curtain open/close, roller shutter up/down and venetian blinds with louver angle adjustment.
 - Scene control by short pressing the scene icon to recall or long pressing to save.
 - Send value: Tap any icon to send the telegram to the bus.
 - Display values including freely configurable unit text.
- HVAC control covers several applications:
 - General temperature control for multiple room heating/cooling applications such as FCU, chilled ceiling with 2-point or PI control. Room temperature control via setpoint (absolute or relative), heating/cooling selection, fan operation (2 options: Not visible when fan operation is disabled; 5 types of fan speeds: 3-speed, Off and Auto when enabled), operating mode changes (4 modes: Comfort, Standby, Economy and Protection).
 - VRF (variable refrigerant flow) interface allowing the TC5 to act as user interface to operate VRF or VRV (variable refrigerant volume) air conditioning devices with a KNX to VRF gateway.
 - Enhanced floor heating control and scene functions as well as on-screen indication of heating valve on/off and timer operation.
 - Ventilation control with manual 3-speed fan changeover as well as auto control (demand-based ventilation) via PM2.5 or CO₂ values. Support of opening/closing heat recovery, filter life count, alarm to change filter and reset filter life.

Max. 10 pages can be configured as HVAC control.

- Display air quality value from bus
Page displaying various sensor readings such as temperature, relative humidity, PM2.5, PM10, CO₂, VOC, AQI, brightness, wind speed and rain. Max. 4 parameters can be displayed per page and a total of 10 pages can be configured as display page.
- Display energy metering value from bus
Max. 8 meters can be displayed on one page and a total of 10 pages can be configured.
- Timer (schedule) function
Max. 16 schedules can be set: Daily or weekly and can be configured via ETS and HMI.
- Scene control
Max. 8 sets of scene groups can be set. Max. 8 output telegrams can be triggered via the scene number and each output has 5 different data types.
- Logic functions
Max. 8 inputs can be configured with different logic operations: AND, OR, XOR, gate forwarding, threshold comparator, format convert and max. value.

- RGB, RGBW and RGBW+color temperature adjustment
TC5 can set up a dimming control page for 3 types of color lights, which are 3-color RGB light, 4-color RGBW light, 4-color RGBW light optional with color temperature adjustment.
- Display of time, date, temperature, humidity/CO₂ on home page.
- Proximity sensor, adjustment of screen brightness, touch volume and vibration
- Password function
Configurable. Max. 3 passwords available.
- Lock function page via bus
The whole device or selected function pages can be locked to disable user screen operation.
- Multi-usage color strip
The color strip is designed not only as a decoration, but also for multiple types of indications, such as KNX programming mode and alarm.
- Display alarm
Max. 5 alarms can be indicated visually as well as acoustically. The alarm display duration and repeat time are configurable.
- Human-centric lighting (HCL)
Brightness and color temperature can be controlled via HCL function.
Max. 10 settings to send brightness and color temperature to the bus as per the specific time of day
- On-site customization possible for wallpaper, screensaver, and configurable icons

Type summary

Product no.	Stock no.	Description	Operating voltage	Color
UP 205/12	5WG1205-2AB12	5" touch panel, horizontal and vertical	DC 24...30 V	White
UP 205/22	5WG1205-2AB22	5" touch panel, horizontal and vertical	DC 24...30 V	Black

Accessories

No.	Product	Description
1	Mounting plate	For fitting onto a conduit box ¹⁾
2	Screws ²⁾	Two for China standard conduit box and two for US standard conduit box

Note:

¹⁾ Order conduit box separately.

²⁾ #6/32 flat head machine screw for US market.

Ordering

When ordering, specify product quantity, product number/stock number and name: e.g. UP 205/12 (5WG1205-2AB12) 5" touch panel.

Product documentation

Title	Document ID
Mounting instructions	A6V13357287
Application manual	A6V13357199
CE declaration	A5W00138763A

Title	Document ID
RCM declaration	A5W00138764A
UKCA declaration	A5W00183868A
Environmental product declaration	A5W00252012A

Related documents such as the environmental declarations, CE declarations, etc., can be downloaded from the following Internet address:

www.siemens.com/bt/download

Technical documentation and ETS application can be downloaded at <http://www.siemens.com/gamma-td> (S-Mode).



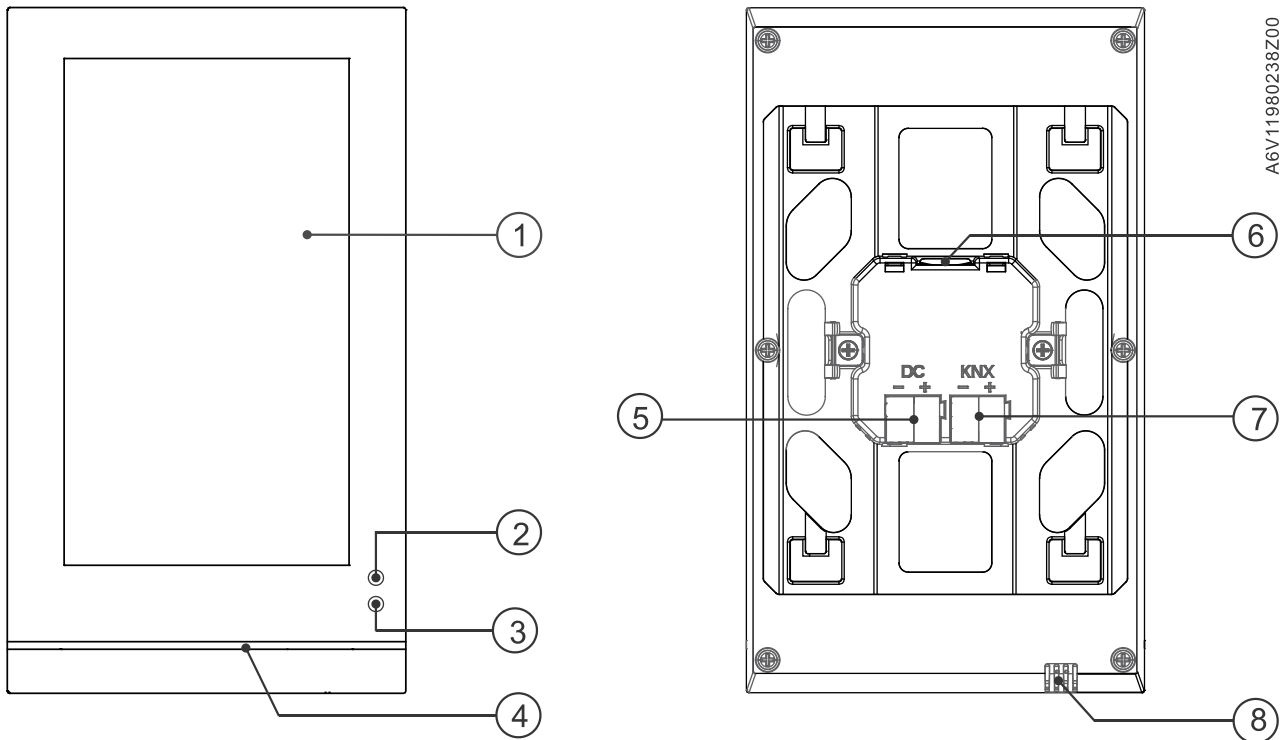
To search for the technical documentation, you can enter the product type in <http://www.siemens.com/gamma-td>.

Mechanical design

The device consists of the following parts:


- Touch panel with electronics, operating elements and built-in room temperature sensor
- Mounting plate is an additional part to complete the installation for touch control TC5.

Operation and display



No.	Product description	No.	Product description
①	Display and touch operation area	⑥	Micro SD card slot
②③	Proximity sensor	⑦	KNX bus connection terminal
④	Color light strip	⑧	Built-in temperature sensor
⑤	Auxiliary power supply connection terminal		

Note

- Enter programming mode:
 - Click the setting icon  in home page;
 - Go to "General";
 - Enable "KNX programming". The color strip turns red and the device can be configured via ETS.
- KNX programming is for professional engineers. Make sure the function is disabled during daily operation and, if enabled:
 - The device can operate normally.
 - The color strip is constant red and affects strip life.
- Micro SD card to modify the background picture, electronic photo album, home page icons or multi-functional pages.



SDHC card and FAT32 format are only supported and the capacity of Micro SD cards may not exceed 32 GB.

Notes

Security

CAUTION



National safety regulations

Failure to comply with national safety regulations may result in personal injury and property damage.

- Observe national provisions and comply with the appropriate safety regulations.

Engineering

WARNING



When designing and constructing the system, be sure to adhere to the installation and operation guidelines for the product, and comply with relevant national laws and regulations strictly.

Mounting and installation

- Mounting
- The device is suitable for semi-flush mounting.
 - Only trained and authorized engineers may install and debug the device.
 - Keep devices away from strong magnetic fields, high temperatures and wet environments.
 - Do not drop the device to the ground and avoid hard impact.
 - Do not use wet cloth or volatile agents to wipe the device.
 - Do not disassemble the device.
- Wiring
- Protective features against over-voltage, over-current, short circuit, and reverse polarity in the power supply.
 - The device is powered with direct current. Avoid reversing the positive and negative poles of the power supply.
 - When connecting the device, make sure the device is properly insulated.

Commissioning

- Powered via KNX with a DC 24...30 V auxiliary supply voltage.
- ⚠ When modifying the wallpaper, screensaver (electronic photo album), configurable icons for home page or multi-functional pages with Micro SD card, interrupting power supply may result in system startup failure.
- Make sure the Micro SD card only contains the firmware used for upgrading, otherwise it damages the system.
- If the device must be switched off after a setting change, we strongly recommend to cut off power 6 seconds after the change to make sure the changes take effect.
- ⚠ Do not power off the auxiliary supply when upgrading the system via Micro SD card, as this may result in display errors; system upgrades require a restart.
- ⚠ Do not power off auxiliary supply when in programming mode, as this may prevent the system from starting.

Disposal



This symbol or any other national label indicate that the product, its packaging, and, where applicable, any batteries may not be disposed of as domestic waste. Delete all personal data and dispose of the item(s) at separate collection and recycling facilities in accordance with local and national legislation.
For additional details, refer to [Siemens information on disposal](#).

FCC

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. this device must accept any interference received, including interference that may cause undesired operation

FCC Caution: Changes or modifications not expressly approved by Siemens Switzerland Ltd. could void user authority to operate the equipment. United States representative <https://new.siemens.com/us/en/products/buildingtechnologies/home.html>

UKCA

United Kingdom conformity assessed

Contact for regulatory topics: (GB) Siemens plc, Sir William Siemens House, Princess Road, Manchester, M20 2UR

Technical data

Power supply	
Operating voltage	DC 21...30 V, powered from bus
Bus current	6 mA @ DC 24 V, 5 mA @ DC 30 V
Bus power consumption	< 150 mW
Auxiliary power voltage	DC 24...30 V
Current	< 115 mA @ DC 24 V, < 100 mA @ DC 30 V
Power consumption	< 3 W

Interface	
KNX	KNX bus connection terminal: black/red KNX auxiliary power supply: yellow/white Max. communication objects: 987 Max. group addresses: 2000 Max. associations: 2000

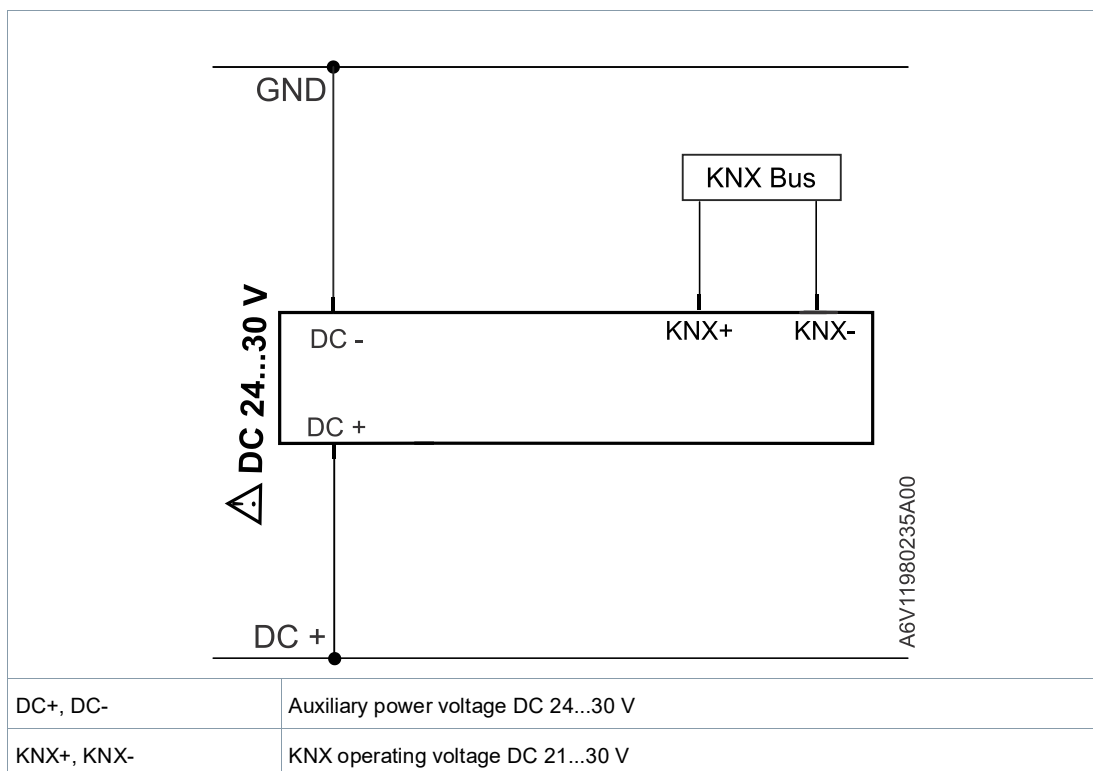
Ambient conditions and protection classification	
As per EN 60730-1 classification	
Pollution class	2
Over-voltage class	II
Safety class	Class III
Protection degree of housing as per EN 60529	IP30
Environmental conditions	
<ul style="list-style-type: none"> ● Storage EN 60721-3-1 	<ul style="list-style-type: none"> ● Class 1K3 Temperature: -25...55 °C Humidity: 0...93 % r.h. (non-condensing)

Ambient conditions and protection classification	
<ul style="list-style-type: none"> Transport EN 60721-3-2 	<ul style="list-style-type: none"> Class 2K3 Temperature: -25...70 °C Humidity: 0...93 % r.h. (non-condensing)
<ul style="list-style-type: none"> Operation EN 60721-3-3 	<ul style="list-style-type: none"> Class 3K5 Temperature: -5...45 °C Humidity: 0...93 % r.h. (non-condensing)
Mechanical conditions Storage EN 60721-3-1 Transport EN 60721-3-2 Operation EN 60721-3-3	Class 1M2 Class 2M2 Class 3M2

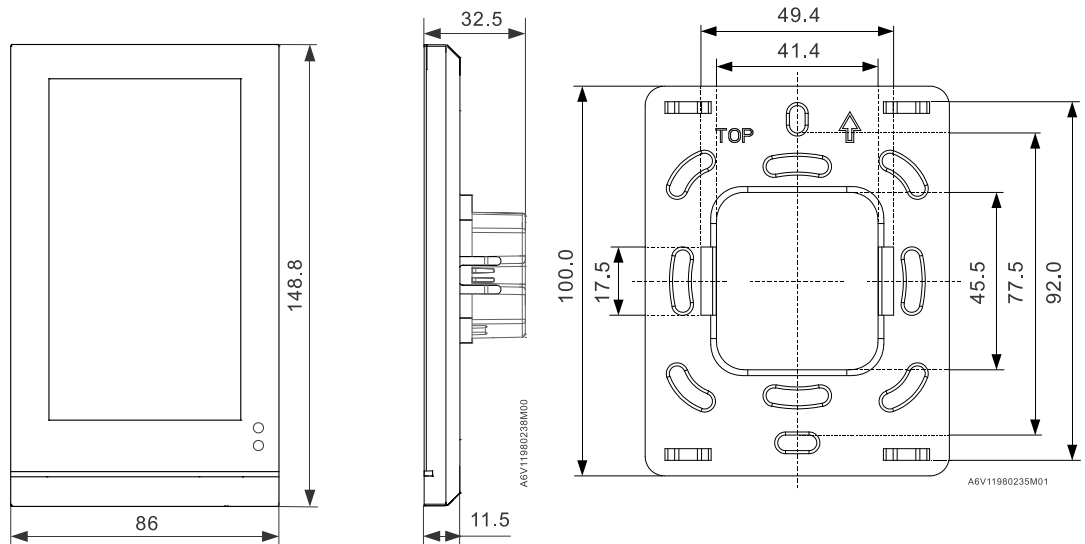
Standards, directives, and approvals	
Electromagnetic compatibility	For use in residential, commercial and industrial environments
EU conformity (CE)	A5W00138763A *
RCM conformity	A5W00138764A *
UKCA	A5W00183868A *
Environmental compatibility	The product environmental declaration (A5W00252012A *) contains data on environmentally compatible product design and assessments (RoHS compliance, materials composition, packaging, environmental benefit, disposal, etc.).

General data	
Proximity sensor	Max. approximately 30 cm Note: This distance is obtained based on human detection, not an obstacle.
Built-in temperature sensor Measuring accuracy at 25 °C	NTC 100k ±1 K
Display	5 inch color capacitance touch screen, 480 × 854 pixel
Dimensions mm (w × h × d)	86 × 148.8 × 11.5
Weight without/with package	248 / 388 g
Materials and colors	<ul style="list-style-type: none"> Rear housing: PC Front panel: 6063 aluminum Touch panel: Glass+Film+Film

Connection terminals



Dimensions (mm)



Support

- Hand over the operating instructions and all other technical product information to the client.
- Return faulty devices with a return delivery note to the local Siemens office.
- For technical questions, contact:
Tel.: +49 89 9221-8000
<http://www.siemens.com/supportrequest>



Technical Support:

<http://www.siemens.com/supportrequest>



FAQ:

<https://support.industry.siemens.com/cs/ww/en/ps/faq>

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