Gamma arina touch sensor		
Touch sensor, single	UP201/x2, without status LED and with orientation LED	5WG1 201-2DBx2
	UP201/x3, with status LED and orientation LED	5WG1 201-2DBx3
Touch sensor, double	UP202/x2, without status LED and with orientation LED	5WG1 202-2DBx2
	UP202/x3, with status LED and orientation LED	5WG1 202-2DBx3
Touch sensor, quadruple	UP203/x2, without status LED and with orientation LED	5WG1 203-2DBx2
	UP203/x3, with status LED and orientation LED	5WG1 203-2DBx3
	UP203/x4, with status LED, orientation LED, scene controller and room temperature sensor	5WG1 203-2DBx4
	UP203/x5, with status LED, orientation LED, scene controller, and IR receiver decoder	5WG1 203-2DBx5
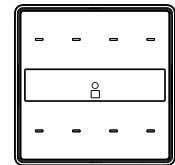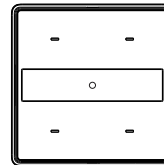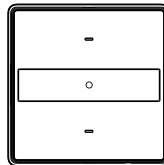
Product		Touch sensor, single	Touch sensor, double	Touch sensor, quadruple
without status LED and with orientation LED	ivory white	5WG1 201-2DB12	5WG1 202-2DB12	5WG1 203-2DB12
	champagne	5WG1 201-2DB32	5WG1 202-2DB32	5WG1 203-2DB32
with status LED and orientation LED	ivory white	5WG1 201-2DB13	5WG1 202-2DB13	5WG1 203-2DB13
	champagne	5WG1 201-2DB33	5WG1 202-2DB33	5WG1 203-2DB33
with status LED, orientation LED, scene controller, and room temperature sensor	ivory white			5WG1 203-2DB14
	champagne			5WG1 203-2DB34
with status LED, orientation LED, scene controller and IR receiver decoder	ivory white			5WG1 203-2DB15
	champagne			5WG1 203-2DB35
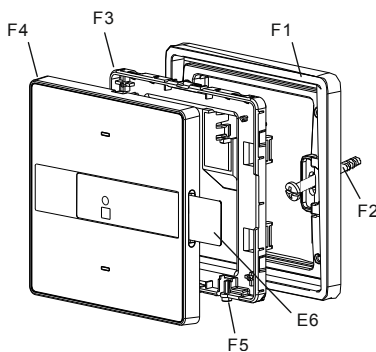
E6   Labelling field
F1   Mounting frame
F2   Mounting screws
F3   Back housing
F4   Front housing
F5   Programming button

Figure 1: Mounting touch sensor arina

Product and Applications Description

The touch sensors for the Gamma arina have one, two or four vertically arranged pairs of sensitive touch areas. A paper foil is placed in the middle between these sensitive touch areas for labeling. The paper foil is replaceable.

These types of touch sensors are available:

- Touch sensor single, double and quadruple, with one orientation LED, without status LED.
- Touch sensor single, double and quadruple, with one orientation LED and with one status LED per touch area.
- Touch sensor quadruple, with one orientation LED, one status LED per touch area, scene controller, and room temperature sensor.

- Touch sensor quadruple, with one orientation LED, one status LED per touch area and IR receiver-decoder.

The touch sensors are mounted together with the mounting frame DELTA® arina onto a 86 mm x 86 mm conduit box.
The mounting frame is not included and therefore have to be ordered separately (see current catalog).

Gamma arina touch sensor	single
	double
	quadruple

Common functions

Touch areas
Depending on the model a touch sensor provides two to eight touch areas (Figure 2: A1, A2, B1, B2, C1, C2, D1, D2), which vertically function as a touch area pair (A to D).
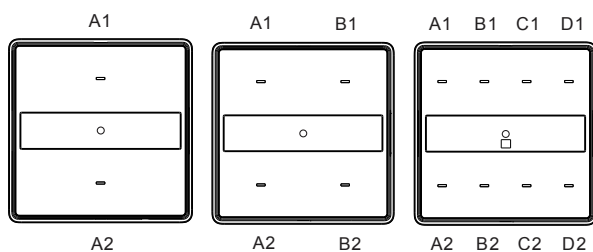

Figure 2: Touch areas

Vertically aligned touch areas may be used as a pair of touch areas (e.g. for defined switching / dimming, or control of shutters and blinds, i.e. with the upper touch area light is turned on and with the lower touch area light is turned off), or as single touch areas for sending values, single-touch-area switching / dimming or single-touch-area control of blinds.

Each individual touch area (A1, A2, B1, B2, C1, C2, D1, D2) may be assigned one of the following functions:
- Switching (on, off, toggle)
- Door bell function
- Single touch area dimming
- Single touch area control of solar protection (blinds, roller shades)
- 1-bit scene control (scene 1 or 2: recall / save)
- 8-bit scene / effect control (recall, recall / save)
- Send value (8-bit value, percent)
- Send value (16-bit value, temperature value, brightness value)
- Forced control

Depending on the selected main function another function may be executed either additionally after a time delay (time delay configurable from 100 ms to 655 s) or alternatively when the touch area is pressed for a longer period.

When touch areas are configured as a pair then this touch area pair may be assigned one of the following functions:
- Dual-touch-area dimming with stop telegram
- Dual-touch-area control of solar protection (blinds, roller shades)

- Send variable percent value
- Send variable 8-bit value
- 1-bit scene control (scene 1 and 2: recall / save)
- 8-bit scene / effect control (recall / save)
- Forced control

Depending on the selected main function another function may be executed additionally after a time delay (time delay configurable from 100 ms to 655 s).

These options are available as additional or alternative functions for single touch areas or touch area pairs:
- Switching (on)
- Switching (off)
- Send percent value
- Send 8-bit value (0...255)
- Send temperature value
- Send brightness value
- Send 16-bit value (0...65535)
- 1-bit scene control (scene 1: recall / save)
- 1-bit scene control (scene 2: recall / save)
- 8-bit scene / effect control: recall
- Forced on
- Forced off
- Deactivate forced control

Acoustic touch response
The touch sensor has an internal beeper. This is used as a response when a touch area is pressed.

Orientation lighting
The orientation light (LED) of the device may be turned on or off continuously or depending on a status object. These configuration options are available for the orientation light (LED):
- LED permanently off
- LED permanently on
- LED indicates IR activity (only for touch sensor with IR receiver)
- LED indicates user operation
- LED indicates long touch area press
- A binary status object controls the LED for each status value on (=1) or off (=0) respectively to either
  - on
  - off
  - flash, slowly (0,3 Hz)
  - flash, moderately (1 Hz)
  - flash, fast (5 Hz)
- An analog status object (8-bit value [0...255], percent value, 16-bit value [0...65535], temperature value [0°C...40°C], brightness value [0...2000 lux] controls the LED for each of up to three value ranges respectively to either
  - on

Technical product information
Update: http://www.siemens.com/gamma
2.16.1.13/2

Subject to change without further notice

UP 20x, UP 28x/3 and UP 28x/5
Siemens Building Technologies

Gamma arina touch sensor	single
	double
	quadruple

o off
o flash, slowly (0,3 Hz)
o flash, moderately (1 Hz)
o flash, fast (5 Hz)

The brightness of the orientation light is configurable and may be controlled via object (e.g. for night operation).

Additional functions of devices with status LED

Status LED
[Not available with UP 201/12, UP 201/32, UP 202/12, UP202/32, UP 203/12, 203/32]
The same configuration options as described for the orientation LED are available for the status LED of a device.
The brightness of the status LED can be configured mutually for all status LED and can be influenced via object (e.g. for night operation).
To find a touch sensor when its associated status LED is turned off and it is dark, this LED may be configured to cyclically flash briefly.

Scene controller
[Applies only to UP 203/14, UP 203/34, UP 203/15, UP 203/35]
The scene controller enables integration of those actuators, which themselves do not provide 8-bit scene control, into 8-bit scene control schemes. Up to eight scene channels (A...H) can be controlled. For each channel one of these functions may be selected:
• Switching
• Solar protection control
• Forced control
• 8-bit value
• 16-bit value
Each channel may be assigned to up to eight different scene numbers (1...64).
Scenes are recalled with a short touch area press and saved with a long touch area press.
Before saving a scene the actuators belonging to that scene must be set to the desired light levels and switching states.
When receiving a save telegram for an 8-bit scene via the 8-bit scene object the scene controller interrogates the current values and states of the actuators via the corresponding objects and saves these values and states as scene settings for the associated scene number.
Saved scene values are only deleted by a new configuration of the device if the parameter "Delete scene memory after bus voltage recovery" is set to "Yes".

IR receiver
[Applies only to UP 205/15, UP 205/35]
The device offers a 16 channel IR receiver-decoder.
As described for the single touch areas / touch area pairs above, each of the 16 IR channels may be either configured for functions associated with single buttons or a button pair. Likewise, dependent on the selected main functions additional functions may be selected. The 16 channel IR hand-held remote S425/72 allows to fully exploit these possibilities.
The application program already has been loaded in the factory.
With the ETS (Engineering Tool Software) the specific parameters and addresses are assigned appropriately, and downloaded into the device.

Function ex factory:
All touch area pairs are pre-configured for the building site function for switching (upper touch areas on, lower touch areas off).

Room temperature measurement
[Applies only to UP 203/14, UP 203/34]
The room temperature can be sent cyclically or on change of value. For adaptation to local circumstances the measured room temperature can be adjusted by a configurable offset value.
• Temperature measurement range: (0...40°C)
• Accuracy of the sensor temperature:
  $\pm$ 1.0 K under reference conditions, (15...35 °C);
  $\pm$ 2.0 K under ambient conditions and in measuring range;
• Resolution: 0.35K

Gamma arina touch sensor	single
	double
	quadruple

Aplication program

25 C0 Sensor Switch 910301

- Single, double or quadruple touch sensor for
    - switching on / off / toggle
    - bell function (press on, release off)
    - dimming (with one or two buttons)
    - solar protection control (with one or two buttons)
    - send value (8-bit and 16-bit)
    - send variable value (8-Bit)
    - 1-bit and 8-bit scene control
    - forced control
    - second transmission object
- 8 channel scene controller with 8 scenes per channel
- 1 LED as orientation light
- 1 LED per touch area for status annunciation
- IR receiver-decoder for 16 IR channels
- Room temperature measurement

This application program applies to all Gamma arina touch sensors.
When expanding the number of touch areas or the functionality (e.g. from UP 201/12 to UP 203/34) the prior configuration remains and must only be expanded.
Configuration and operation of all Gamma arina touch sensors is identical independent of design and the number of touch areas.

Commissioning

Programming mode
Press the programing button short (< 2 s) to enable programming mode. This is indicated by the programming LED.

Factory setting
When the programing button is pressed very long (> 20 s) the device is reset to the default factory settings. This is indicated by evenly flashing the programming LED. The flashing stops after 5 seconds.

Note:
When the programming key is pressed longer (**>2 s...<20 s**) the device starts connection test. This is a special mode for Desigo TRA. The device may be blocked for the manufacturer specific functions for approx. 10 seconds for the programming mode. This is indicated by briefly flashing the programming LED.

Installation notes

The device can be used for permanent installation in dry interior rooms and for insertion in distribution boards or miniature housings.

⚠ **WARNING**

- The device must be mounted and commissioned by an authorised electrician.
- The device can be mounted in combination with switches and sockets in multi mounting frames, but the installation should comply with safety standard or regulation.
- The prevailing safety rules must be heeded.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.

Technical product information
Update: http://www.siemens.com/gamma
2.16.1.13/4

Subject to change without further notice

UP 20x, UP 28x/3 and UP 28x/5
Siemens Building Technologies

Gamma arina touch sensor	single
	double
	quadruple

Technical data

Power supply
- Via the KNX bus line
- Current consumption:
  UP201/xx, UP202/xx, UP203/x2: 10 mA @ DC 24 V
  UP203/x3, UP203/x4: 12.5 mA @ DC 24 V
  UP203/x5: 25 mA @ DC 24 V

Operating elements
- 1, 2 or 4 pairs of horizontally arranged touch areas
- 1 programing push button:
  for toggling between normal mode / addressing mode
  for reset the device to the default factory settings and
  to activate manufacturer specific functions

Display elements
- 1 red LED:
  for checking the bus voltage and for displaying normal
  mode / addressing mode
  This LED indicated also the reset to the default factory
  settings and further activated manufacturer specific
  functions
- 1 yellow LED as orientation light in the dark
For all variants:
- 1 green LED per touch area for status annunciation
  (e.g. quadruple switch = 8 status LED's

IR receiver (UP 203/15, UP 203/35)
- Range of IR transmission: approx. 20 m under these
  conditions:
  - with IR hand-held remote S 425/72
  - directed in optical direct line-of-sight
  - at 500 Lux diffuse day-light at reception location

Connections
- Bus line: Bus terminal (black/red) , screwless
  Ø 0.6 ... Ø 0.8 mm solid

Physical specifications
- Dimensions (L x W x D): 86 x 86 x 14.6 (in mm)
- Weight: approx. 65.6 g

Electrical safety
- Degree of pollution (according to IEC 60664-1): 2
- Type of protection (according to EN 60529): IP 20
- Class of protection (according to IEC 61140): III
- Overvoltage category (according to IEC 60664-1): III
- Bus: safety extra-low voltage SELV DC 24 V
- Device complies with: EN50491-3, IEC 60669-2-1, and
  IEC 60669-2-5

EMC requirements
Complies with EN 50491-5-1, EN 50491-5-2, EN 50428,
EN60669-2-1

Environmental specifications
- Climatic conditions: EN 50491-2
- Ambient temperature operating: - 5...45 °C
- Ambient temperature non-op.: - 20...70 ° C
- Relative humidity (non-condensing): 5...95 % r.h.

Reliability
Failure rate: 413 FIT at 30°C

Markings
KNX, EIB, CE

CE mark
- In accordance with the EMC guideline (residential and
  functional buildings), low voltage guideline

UP 20x, UP 28x/3 and UP 28x/5
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Technical product information
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2.16.1.13/5

Gamma _instabus_

Technical product information

June 2014

Gamma arina touch sensor	**single** **double** **quadruple**

Location and function of the display and operating elements

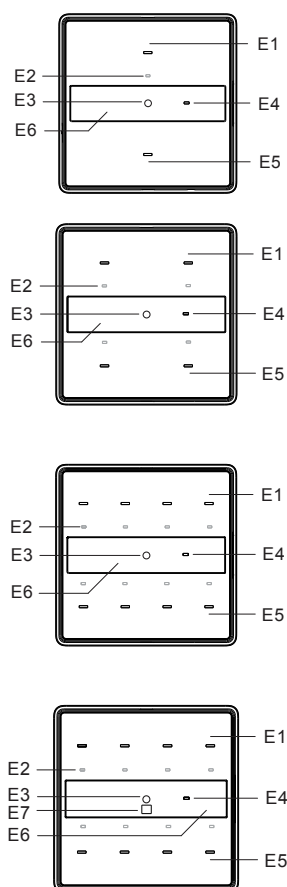*Figure 3: Display and operating elements*

E1 Upper touch area indicator
E2 LED for status annunciation (not available with UP 20x/x2, invisible when turns off)
E3 LED for orientation lighting
E4 LED for programming lighting (invisible when turns off)
E5 Lower touch area indicator
E6 Labelling field (length: 82 ± 0.15mm, width: 18.35 ± 0.1mm, thickness: < 0.2 mm)
E7 IR receiver hole (UP 203/x5 only)

Installation and wiring

General description
The touch sensor is mounted onto the conduit box together with its mounting frame.
The mounting frame is not included and therefore has to be ordered separately (see current catalog).

Mounting
– Mount the mounting frame (F1) onto conduit box (G1) via mounting slots with mounting screws (F2) (see figure 4),
– Wiring the KNX connector (H2).
– Insert the KNX connector (H2) to the touch sensor (see figure 5). Please be noted the polarity of bus connection with mark on housing.
– Slip the wall switch's main module (F3) together with (F4) onto the mounting frame and firmly press them together (see figure 6).
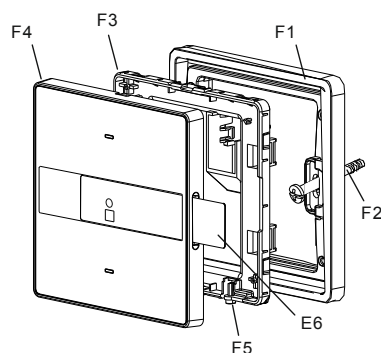

Figure 1: Mounting sequence

F1 Mounting frame
F2 Mounting screws
F3 Back housing
F4 Front housing
F5 Programming button
E6 Labelling field

Technical product information
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2.16.1.13/6

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UP 20x, UP 28x/3 and UP 28x/5
Siemens Building Technologies

Gamma arina touch sensor	single
	double
	quadruple

Installation of mounting frame (F1)

Mount the mounting frame (F1) onto conduit box (G1) via mounting slots with mounting screws (F2).
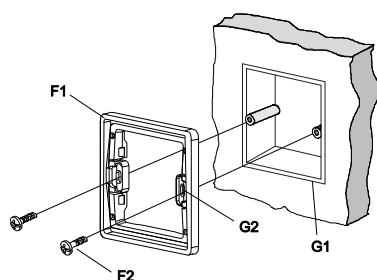

Figure 4: Mounting of the frame

F1	Mounting frame
F2	Mounting screws
G1	Conduit box (86 mm X 86 mm)
G2	Mounting slots

Insert KNX connector (H2)

– Wiring the KNX connector (H2).
– Insert the KNX connector (H2) to the touch sensor. Please be noted the polarity of bus connection with mark on housing.
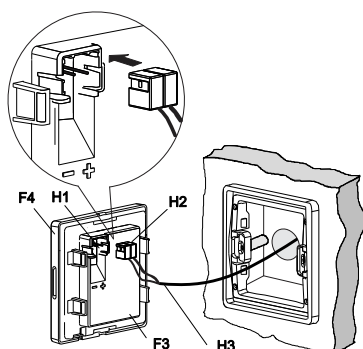

Figure 5: Connect KNX connector

F3	Back housing
F4	Front housing
H1	Pin
H2	KNX connector
H3	KNX line

Installation of main module (F3 together with F4)

Slip the wall switch's main module (F3) together with (F4) onto the mounting frame and firmly press them together.
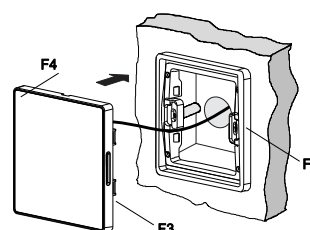

Figure 6: Mounting of the main module

F1	Mounting frame
F3	Back housing
F4	Front housing

UP 20x, UP 28x/3 and UP 28x/5
Siemens Building Technologies
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Technical product information
Update: http://www.siemens.com/gamma
2.16.1.13/7

Gamma arina touch sensor	single
	double
	quadruple

Unmounting

Remove the front housing (F4)
– Remove the front housing (F4) of the touch sensor apart from the back housing (behind the front cover and invisible) with a screw driver, with the back housing still on the mounting frame (F1)
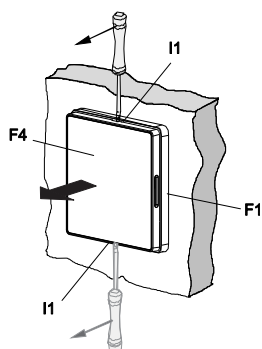– Pull off the KNX connector manually from the front housing

Figure 7: Remove the front housing

F1	Mounting frame
F4	Front housing
I1	Hole for screwdriver
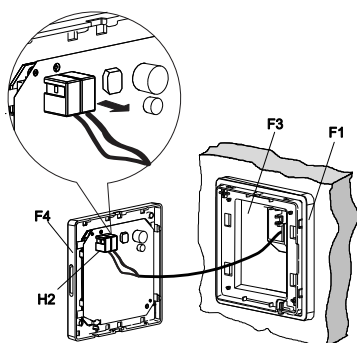
Figure 8: Remove the KNX connector

F1	Mounting frame
F3	Back housing
F4	Front housing
H2	KNX connector

Remove the back housing (F3)
– Insert screwdriver to the holes (J1), and press as showed in Figure 9.
– Move the back housing out of the mounting frame (F1).
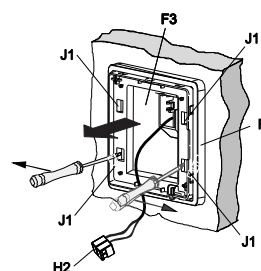– Pull the KNX connector (H2) out from the back housing.

Figure 9: Remove the back housing

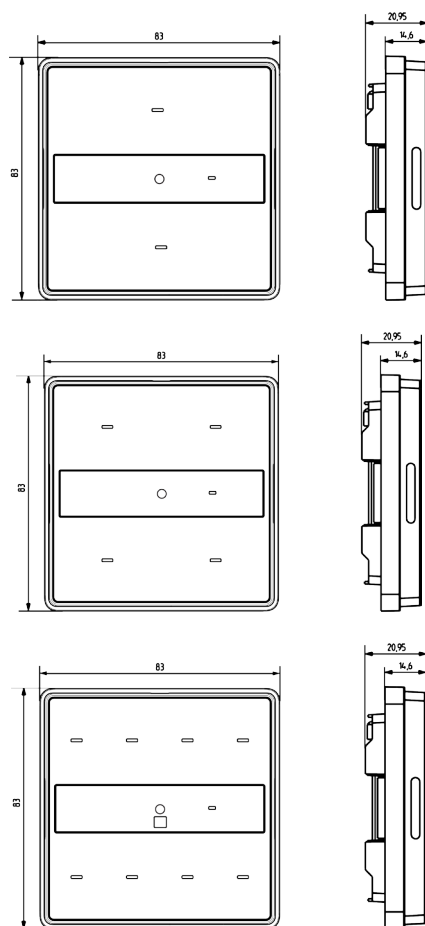| F1	Mounting frame
F3	Back housing
H2	KNX connector
J1	Hole for screwdriver

Address assignment

– Press the programming button (F5) on the device to initiate the assignment of the physical address to the device (figure 1).
– The programming LED (E4) turns on to indicate the programming mode. Upon receiving the physical address the device automatically returns to normal operating mode and the LED turns off. The programming LED is not invisible when turns off.

Technical product information
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2.16.1.13/8

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UP 20x, UP 28x/3 and UP 28x/5
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Gamma arina touch sensor	single
	double
	quadruple

Dimension drawing
Dimensions in mm

General notes
- The operating instructions must be handed over to the client.
- Any faulty device is to be sent together with a return delivery note of the local Siemens office.
- If you have further questions concerning the product please contact our technical support.
- ☎ +86 (10) 4006306090
- ✉ support.ap.i-bt@siemens.com

Note:
This product supports two different operation modes: KNX and PL-Link.
This document describes the KNX functionality that can be configured with ETS.
For PL-Link refer to documentation for Desigo.