SIEMENS

Push Button AP 115
5WG1 115-3AB01/11
5WG1 115-3AB21/31

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Product and Applications Description

The push-button AP 115 is available in the below versions:

two-state-switch type, single, with window	5WG1 115-3AB01
two-state-switch type, 2-fold	5WG1 115-3AB11
push-button type, single, with window	5WG1 115-3AB21
push-button type, 2-fold	5WG1 115-3AB31

The push button AP 115 is a complete device from the splash-proof DELTA fläche range and is suitable for surface mounting with protection type IP 44. It consists of housing, rocker(s) and a bus coupling unit.
Depending on the design (1-fold or 2-fold), single rockers with a window or twin rockers without a window are available.
There are also two LEDs which can either be used for status display or as an orientation light (selectable). The LEDs are supplied via the bus voltage. The LEDs are however only visible externally in the 1-fold push button with a window. It is therefore a good idea only to control the LEDs with these devices.
In the neutral position variant, both the upper and lower rocker contact can be operated (two switch contacts per rocker); in the switch position variant, only the lower rocker contact can be operated (one switch contact per rocker).
The push button AP 115 can only function with an appropriate application program i.e. the push button consists of the device (hardware) and the application program (software).
Using the ETS program (*EIB* Tool Software), the application programs can be selected and the specific parameters and addresses can be assigned.

Application Programs

See Siemens product database from version F onward

Technical Specifications

Power supply
via the bus line

Operating elements
1 learning button (combined with the display LED):
for toggling between normal mode/addressing mode

Display elements
- 1 red display LED (combined with the learning button):
  for checking the bus voltage and for displaying normal mode/addressing mode
- 2 red LEDs (always switched together):
  as an orientation light or for status display (selectable), only advisable for 1-fold push button AP 115 with window

Connections
- Bus line: screwless bus terminal
  0.6 ... 0.8 mm ∅ single core

Mechanical data
- Housing: plastic housing
- Dimensions (L x W x D): 75 x 66 x 52 mm
- Weight: approx. 120 g
- Fire load: approx. 2500 kJ ± 10 %
- Installation:
  - surface-mounted, fixing drill holes:
    4.5 mm ∅ drill template supplied
  - cable entry for the bus cable via sliding nipple

Electrical safety
- Pollution degree (according to IEC 664-1): 2
- Type of protection (according to EN 60529): IP 44
- Protection class (according to IEC 1140): III
- Overvoltage category (according to IEC 664-1): III
- Bus: safety extra-low voltage SELV DC 24 V
- Device complies with
  EN 50090-2-2 and IEC 664-1: 1992

Reliability
Failure rate: 254 fit for 40 °C (switch position)
262 fit for 40 °C (neutral position)

EMC requirements
complies with EN 50081-1, EN 50082-2 and
EN 50090-2-2

Environmental conditions
- Climatic withstand capability: EN 50090-2-2
- Ambient operating temperature: - 5 ... + 45 °C
- Storage temperature: - 25 ... + 70 °C
- Relative humidity (not condensing): 5 % to 93 %

Approval
EIB-certified

CE mark
in accordance with the EMC guideline (residential and functional buildings) and the low voltage guideline

Certification
EIB certificate

CE norm
complies with the EMC regulations (residential and functional buildings), and low voltage regulations

Location and function of the operating and display elements

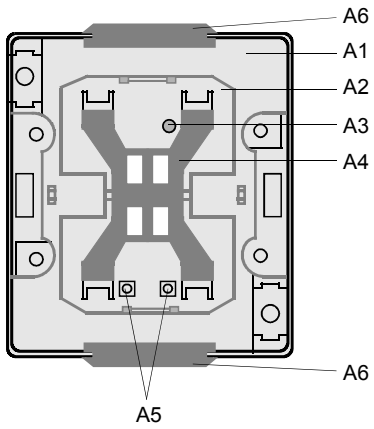

Diagram 1: Location of the display and operating elements

A1 Housing
A2 Bus coupling unit
A3 Learning button for toggling between normal mode and addressing mode for transferring the physical address. It is combined with an LED for displaying the normal mode (LED off) or addressing mode (LED on); it is extinguished automatically once the physical address has been transferred.
A4 Single or twin operating lever (depending on the design) for plugging in the rockers
A5 LEDs as an orientation light or for status display (only visible externally for 1-fold push button with window)
A6 Sliding nipple for cable entry

Installation Instructions

- The device may be used for permanent interior and outdoor installations and all fittings requiring the protection class IP 44.

⚠ WARNING

- The device must be mounted and commissioned by an authorised electrician.
- The device must not be connected to 230 V.
- 230 V wires must not be inserted into the device and/or looped through it.
- The device may be mounted to switch and socket combination provided VDE-certified devices are used exclusively.
- The prevailing safety rules must be heeded.
- The bus coupling unit module must not be opened. A device suspected faulty should be returned to the local Siemens office.

Mounting and Wiring

General description
The push buttons AP 115 are surface mounted with screws. Ready for delivery all components (enclosure, rocker(s), bus coupling unit module) are assembled and fastened with the matching screws. The screws are only slightly screwed in and accessible after the removal of the rocker(s).
After mounting the enclosure e.g. onto the wall the bus line is introduced into the enclosure via the slipping tongue and individually connected.
The connection with the bus line is established via the bus connection block 193 (screwless connection block for single core conductors).Then the rocker support (dark grey frame) is assembled by bolted joints and the rockers are sticked on.

Note: After assembling the rockers support the learning button is not accessible any longer, i.e. the physical address should be set in advance.

Slipping off bus connection blocks (figure 2)
- The bus connection block (B2) is situated on the back of the bus coupling unit module (B1). It consists of two components (B2.1 and B2.2) with four terminal contacts each. Take care not to damage the two test sockets (B2.3) by accidentally connecting them to the bus cable or with the screw driver (e.g. when attempting to unplug the bus connection block).
- Carefully put the screw driver to the wire-inserting slit of the bus connection block's grey component (B2.3) and pull the bus connection block (B2) from the built-in device. When removing the red component of the bus connection block, the grey component remains in the compartment

Note: Don't try to remove the bus connection block laterally. There is a risk of shorting-out the device!

Slipping on bus connection blocks (figure 2)
- Slip the bus connection block (B2) onto the guide slot of the bus coupling unit module (B1) and
- press the bus connection block (B2) down to the stop.

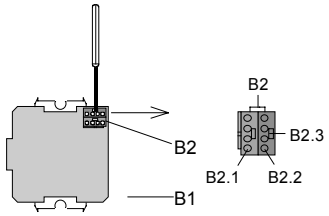

Figure 2: Slipping off/on bus connection blocks

Connecting bus cables (figure 3)
- The bus connection block (C1) can be used with single core conductors Ø 0,6 ... 0,8 mm.
- Remove approx. 5 mm of insulation from the conductor (C2) and plug it into the bus connection block (C1)
  (red = +, black = -).

Disconnecting bus cables (figure 3)
- Unplug the bus connection block (C1) and remove the bus cable conductor (C2) while simultaneously wiggling it.

Figure 3: *Connecting/disconnecting bus cables*

⚠ WARNING

When mounting the rocker(s) take care that a sufficient fitting in the switching lever is achieved by a central pressure onto the rocker(s).