SIEMENS

USA

instabus® Technical Manual

Event-Schedule-Logic Controller, N350

5WG1 350-1AB01

April 2002 / Page 1

Product and Applications Description

The Event-Schedule-Logic Controller N350 is a DIN rail mounted device.

In a compact unit the module offers
– Event programs,
– Schedule programs (weekly scheduler) and
– Logic functions
for binary input and output signals.

Up to ten event programs are available. For each event program up to ten event actions may be activated. An event program is triggered via an associated event object. The event trigger type may be chosen from this list:
– Reception of any telegram (0 or 1)
– Reception of 1
– Reception of 0
– Change from 0 to 1
– Change from 1 to 0
The value sent (0 or 1) can be defined per event action. The delay of an event action with respect to the time of the event trigger may also be defined.

The weekly scheduler provides a total of 100 schedules for 20 time controlled channels. Each schedule switches a time object on the minute at a pre-defined time on one or several days of the week.
The schedules are executed based on a controller-internal clock which must be synchronized at least once a day with a master time source. The 4-channel time switch REG 372 (order number: 5WG1 372-3EY01), the 4-channel time switch with DCF77 REG 372/02 (order number: 5WG1 372-3EY02), the ISDN gateway N147 (order number: 5WG1 147-1AB01), or the IP Interface AP146 (order number: 5WG1 146-3AB01) are available as master time clock or time source.

Ten logic gates, each with up to six inputs and one output, are available. Each gate's logic may be selected from this list: AND, OR, NAND, NOR. Individual logic gate inputs may be inverted. A send condition „send on each reception" or „only on change at output" can be configured. A send filter then determines whether any output value or only 0 or only 1 is sent.

With the ETS (EIB Tool Software) the application program is selected, its parameters and addresses are assigned appropriately, and downloaded to the Event-Schedule-Logic Controller N 350.

Application Programs

01 07 Event-Schedule-Logic 801701
with the functions:
- Event Control
- Schedule Control (Weekly Scheduler)
- Logic

Application Examples

- Indoor and outdoor lighting control applications
- Lighting control dependent on outdoor light level and weekly schedule (opening hours)
- Lighting control scenes with dimming in conjunction with a scene controller
- Timer based lighting control
- Control of shutters, blinds, and shades
- Individual schedules for automated comfort (heating, lighting, shading...)
- Programming for different life styles and user profiles (scene control)
- Irrigation control / water storage control
- Activate Garage Door Control / Gate Control

Technical Specifications

Power Supply
via bus line

Behavior on bus voltage restoration
After an initialization time of approximately 2 seconds and a configurable startup delay on restart the N 350 is operational again.
On restart all event trigger inputs are set to 0. The controller fetches the current values from the bus. If an event trigger input is set to 1 during restart and the event trigger is set to change from 0 to 1 then the event program is triggered and executed.
On restart all logic gate inputs are set to 0. The controller fetches the current input values from the bus. The logic gate sends the result of the logic function to the bus.
On restart the device gets the time from a master clock. Until the synchronized time is available all schedule functions are blocked.

Control elements
1 learning button:
for switching between normal operating mode and addressing mode

Display elements
1 red LED:
for monitoring nus voltage and displaying mode selected with learning button

Connections
bus line: pressure contacts on data rail

Physical specifiactions
- polymer casing
- dimensions: DIN rail mounted device
  width: 1 SU (1 SU = 18 mm)
- weight: approx. 100 g (4oz)
- installation: rapid mounting on DIN EN 50022-35 x 7,5 rail

Electromagnetic compatibility
complies with Part 15 of the FCC rules pursuant to the limits for a Class A digital device

Environmental specifications
• ambient temperature operating: - 5 ... + 45° C (23...113°F)
• maximum ambient temperature range: - 25 ... + 70° C (-13...158°F)
• relative humidity (non-condensing): 5 % to 93 %

Listings and Certifications

UL listed
UL 916, Energie Management Equipment Accessory

CSA certified
(pending)

CE marked
Complies with EMC regulations (residential and non-residential buildings), and low voltage regulations

EIB certified

P.T.O.

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Location and Function of the Display and Control Elements

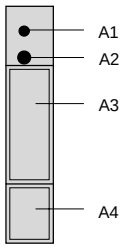


Figure 1: Location of display and operator elements

A1 LED for indicationg normal operating mode (LED off) and addressing mode (LED on); upon receiving the physical address the device automatically returns to operating mode
A2 Learning button for switching between normal mode and addressing mode
A3 Type plate
A4 Label for noting the physical address

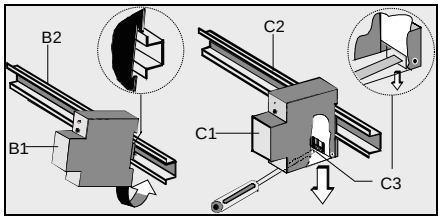
Installation Instructions
The device may be used for permanent interior installations in dry locations within distribution boards.

⚠ WARNING

Disconnect and lock off power before installing or working on the device.
Free DIN rail areas with sticked-in data rails must be covered with covers, order no. 5WG1 192-8AA01.

The device must not be opened.
A faulty device should be returned to the local Siemens sales office or distributor.

The device must be mounted and commissioned by a factory trained person.
The prevailing safety rules must be observed!
Mount in dry locations only!



Mounting

General description
The N-system DIN rail device (1 SU) can be installed in N-system distribution boards and any other location or enclosure with DIN EN 50022-35 x 7,5 rails. Before mounting the device onto a DIN rail a data rail has to be glued into it.

The connection to the bus line is established by clicking the device onto the DIN rail with glued-in data rail. Take care that the type plates of all devices on a DIN rail can be read in the same direction guarenteeing the devices are polarized correctly.

Mounting the device on a DIN rail
Slide the device (B1) onto the DIN rail (B2) and swivel the device (B1) back onto the DIN rail until the slide clicks into place audibly.

Dismounting the device from the DIN rail
Press down the slide (C3) with a screw driver and secure the slide in place by gently pressing it down and swivel the device (C1) from the DIN rail (C2) to the front.

Wiring

Wiring is not required.