





## DCF77 antenna AP 390

5WG1 390-3EY01

Revision: February 2002

# Product and Applications Description

The DCF77 antenna AP 390 is a surface mounted device. The device provides a DCF77 signal for up to ten (10) 4-channel radio controlled time switches REG 372/02. The maximum permissible wire length between AP 390 and REG 372/02 is 200m.

## **Technical Specifications**

## Power supply

from REG 372/02 via connecting wire

### Power consumption

## Operational conditions

- Signal Range: 1000 km from Frankfurt a. M.
- For use with Siemens 4-channel radio controlled time switch only (5WG1 372-3EY02)
- Max. wire length between AP 390 and REG 372/02: 200 m
- Max. burden: ten (10) REG 372/02

Antenna data
• Sensitivity: 100 μV/m

### Display elements

1 red LED: flashes every second when receiving the DCF77 radio signal

### Connections

Terminals for NYM 3 x 1,5 mm<sup>2</sup>

## **Physical specifications**

- polymer casing dimensions: 110 x 72 x 54mm (H x B x T)
- weight: ca. 172 g fire load: ca. 3300 KJ  $\pm$  10%
- installation: surface mounted

- Fouling class (according to IEC 60664-1): 2 Protection: IP54 according to EN60529
- Device complies with: EN 50 090-2-2 and IEC 60664-1: 1992

# Reliability

• Failure rate: 177 fit at 40°C

**Electromagnetic compatibility**Complies with EN 50081-1, EN 61000-3-2, EN 61000-3-3 and EN 50082-1

# **Environmental specifications**

- Ambient temperature operating: 20°C to + 70° C Climatic conditions: EN 50090-2-2
- Ambient temperature non-operating: 25°C to + 70° C
- Rel. humidity (non-condensing): 5% to 93%

Complies with EMC regulations (residential and functional build-

## Installation Instructions



# **WARNING**

- The device must be mounted and commissioned by an authorized electrician
- The prevailing safety and installation rules must be heeded.
- The device must not be opened. A device suspected faulty should be returned to the local Siemens office.

# Mounting and Wiring

### We recommend to mount the device

- outside the distribution board (minimum distance: 4 m)
- under the roof
- or in a protected outdoor space

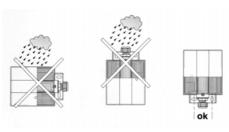
## Note:

Avoid mounting the device in the vicinity of

- TV sets
- Switched power supplies
- Radio frequency sources
- Metallic devices
- RF transmitters
- Radiological devices
- Personal computers

# Warning:

Mount the DCF77 antenna in a vertical position only!



# Consequences of false installation:

Moisture and/or dust can get into the device! Device failure and short circuiting the bus line are potential con-

# Wiring and orientation of the antenna

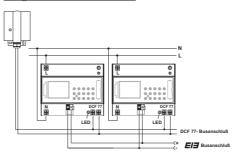
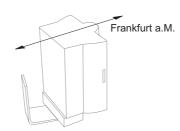


Figure 1: Wiring AP 390 to one or several REG 372/02

- First connect the 4-channel radio controlled time switch
- REG 372/02 with 230 V~ and then with the bus line. Connect the DCF77 antenna AP 390 with the radio controlled time switch REG 372/02 only.

  The polarity of the connection is important!
- The polarity is correct when the yellow LED is NOT lit.
  Safety extra low voltage is used for the antenna signal.
  Proper isolation from mains voltage must be provided for.
- For proper orientation of the antenna swivel the antenna horizontally on the mounting bracket until the LED on the
- front flashes every second. Orientation: The arrow should point to Frankfurt a. M.



Mounting the protective cap

- Place the protective cap over the installed device
- Lock the cap by tightening the screw