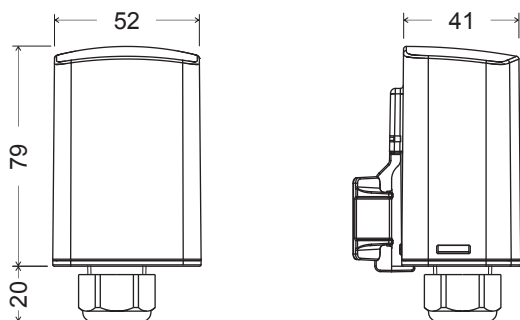


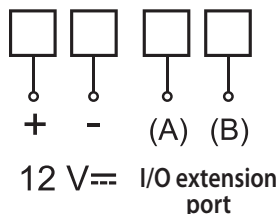
# DY DCF77

## Installation Manual

### 2 DIMENSIONS (mm)



### 3 CONNECTION DIAGRAMS



### 4 DEVICE STATUS

- When you power on the led emits two RED flashes as follows:

|     |     |     |     |     |
|-----|-----|-----|-----|-----|
| OFF | ON  | OFF | ON  | OFF |
| ... | 1 s | 1 s | 1 s | ... |

After the power on sequence the DY DCF77 sends data and time to the I/O extension port (then to the connected devices) every 30 minutes.

- The flashing of the GREEN led indicates the status of the device:

|  | ON     | OFF    | REPETITIONS       |
|--|--------|--------|-------------------|
| searching for valid signal               | 500 ms | 500 ms | continuous        |
| exact time acquired less than 30 minutes | 100 ms | 100 ms | 6 every 5 seconds |
| exact time acquired less than 48 hours   | 100 ms | 100 ms | 3 every 5 seconds |

- Sending data to the I/O extension port (and to the connected devices) is signaled by the RED flashing of the led for 3 seconds as follows:

|        |        |        |        |       |
|--------|--------|--------|--------|-------|
| ON     | OFF    | ON     | OFF    | ..... |
| 100 ms | 100 ms | 100 ms | 100 ms | ..... |

Note: at any time you can force sending data to the I/O extension port by pressing the key (accessible by removing the cover, see figure 2).

# 1 User Manual

## DCF MODULE FOR EXTERNAL USE

⚠ Read all the instructions carefully

DY DCF77 is a module that allows you to capture the information of data and time. This information may be shared with ABB devices designed to interface with DY DCF77, so as to ensure a synchronization always perfect.

| Code            | Model    | Description                 |
|-----------------|----------|-----------------------------|
| 2CSM250411R1000 | DY DCF77 | DCF module for external use |

### SAFETY WARNINGS

During product installation and operation it is necessary to observe the following instructions:

- The product must be installed by a qualified person, in strict compliance with the connection diagrams.
- Do not power the instrument if any part of it is damaged.
- The product must be installed and activated in compliance with current electric system standards.
- The electrical system in the building in which the product is to be installed should have an over-current switch and a protection device.
- Do not use the product for purposes different from the one specified.
- In case of malfunction do not perform repairs and contact immediately the technical support.
- The product can be used in environments with category of overvoltage III and pollution degree 2.
- Before accessing the connection terminals, verify that the leads are not live.
- After installation, inaccessibility to the connection terminals without appropriate tools must be guaranteed.

### TECHNICAL CHARACTERISTICS

- Power supply: 12V DC (-20% ÷ +20%)
- Absorption: 4 mA
- DCF frequency: 77.5 kHz
- Wall or pole installation
- Wiring
  - Cable length: 100m
  - Flexible cables section: 0.75 ÷ 1.5 mm<sup>2</sup>
  - Sheathed cables maximum diameter: 3 mm
- Protection degree: IP54
- Operating temperature: 0 ÷ +50 °C
- Storage temperature: -25 ÷ +70 °C
- Operating humidity: 20 ÷ 90% non condensing
- Key to force sending data to the connected devices
- Red / green / orange led for signaling device status (Figure 1)

### 5 INSTALLATION

- Installation can be wall or pole (by using the adapter in the package)
- Remove the cover by leveraging the teeth on the sides of the product
- Pass the cables through the cable entry on the bottom side and connect the power and bus cables respecting the wiring diagram
- Tighten the cable gland and replace the cover.

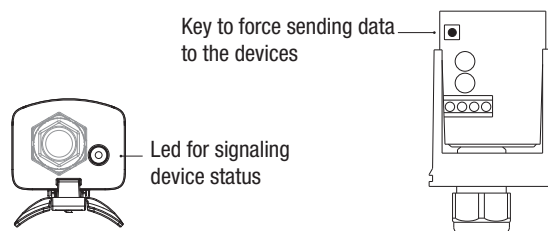


Figure 1

Figure 2

### REFERENCE STANDARDS

Compliance with Community Directives:  
2014/53/EU (RED)

is declared with reference to the following harmonized standards:

- EN 60950-1
- ETSI EN 301 489-1, ETSI EN 301 489-3, ETSI EN 300 330