



**BEACON CONTROLLER  
TB TYPE**

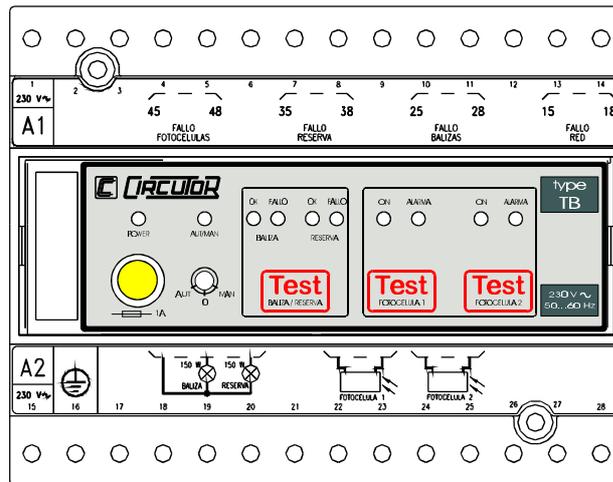
**( Code 7 71 085 )**

**USER'S MANUAL**

**( M 981 341 / 98 A )**

**(c) CIRCUTOR S.A.**

**BEACON CONTROLLER ver. 98-port.**



**1.- TECHNICAL FEATURES OF THE CONTROLLER**

**1.1.- Operation procedure:**

The instrument is designed to perform the supervision, control and transmission of possible malfunction in the different components of the beacon system in the transmission tower of the Phone Company.

The system will control turning on process of two sets of two 75W/230V lamps though a set of two photocells placed in the tower. These will indicate the luminosity level when applying a level voltage of 230 V c.a. Photocells will be market type and are not factory-supplied.

It is equipped with a selector MAN - 0 - AUT. In the AUT position the control is taken by the photocells.

The controller will be able to detect malfunction in lamps of both service and reserve beacons, as well as in the photocells control. Automatically it daily checks the status of the beacons and photocells. The alarm signaling will be visualized through two leds at the frontal side of the instrument. Each alarm has a relay with a free voltage contact that permits to be connected to a switchgear board.

The proper control of photocells and the set of service and reserve beacons can be tested. During testing actions no alarm relay trips, only indication leds will light on.

The system will be powered from a 230 V a.c. power source and is protected by means of a user-accessible fuse placed at the frontal side of the instrument.

**Led POWER** : Lights on when the instrument is powered.

**AUT - 0 -MAN Selector:** Switch with three positions: AUT - 0 - MAN.

- Switching the selector to **MAN** position, beacon lamps will light on with no control from photoelectric cells.

- Switching the selector to **AUT** position, the controller will light beacon lamps on when the lighting level is equal or under the set level.

At positions **MAN** & **AUTO**, the led **AUT/MAN** will light on. Whether a fault in the lamps for standard performance is detected, lamps for reserve performance will be lit on.

- Switching the selector to **0** position, the equipment will be at stand-by state and the led **AUT/MAN** will be off. Whether the fuse is at right condition, the led **POWER** will be on.

**Led AUT/MAN:** This led will light on when the selector is at **MAN** or **AUTO** position.

**Button TEST:** When pressing it, a test of the beacon lamp status is carried out.

**Led OK BALIZA :** This will be on while the service beacons are in standard performance mode. It also will light on whether the result of the test of the beacon lamp status is right.

**Led FALLO BALIZA :** This will be on whether, while the service beacons are in standard performance mode, a fault in the service beacons is detected. It also will light on whether the result of the test of the service beacon lamp status is not right.

**Led OK RESERVA :** This will be on whether, while the service beacons are in standard performance mode, reserve beacons are activated since a fault in the service beacons has been detected. It also will light on whether the result of the test of the service beacon lamp status is not right but the reserve beacon lamps status is right. It will simultaneously light on with the led FALLO BALIZA.

**Led FALLO RESERVA :** This will be on whether, while the service beacons are in standard performance mode, a fault in the reserve beacons is detected. will light on whether the result of the test of both the service beacon lamp status and the reserve beacon lamps status is not right. It will simultaneously light on with the led FALLO BALIZA.

- Led ON F1 :** This will light on when the photocell 1 closes the contact; or when the result of the TEST F1 is right.
- Led ALARMA- F1:** This will light on when a fault in the photocell 1 is detected; either in TEST F1 or standard performance mode.
- Led ON F2. :** This will light on when the photocell 2 closes the contact; or when the result of the TEST F2 is right.
- Led ALARMA- F2 :** This will light on when a fault in the photocell 2 is detected; either in TEST F2 or standard performance mode.
- Button TEST F1 :** When pressing it, a test of the photocell 1 is carried out. Whether the result is right, the ON F1 will light on; on the contrary ALARM F1 will light on.
- Button TEST F2 :** When pressing it, a test of the photocell 2 is carried out. Whether the result is right, the ON F2 will light on; on the contrary ALARM F2 will light on.

**Other features :**

1.2.- Power supply:

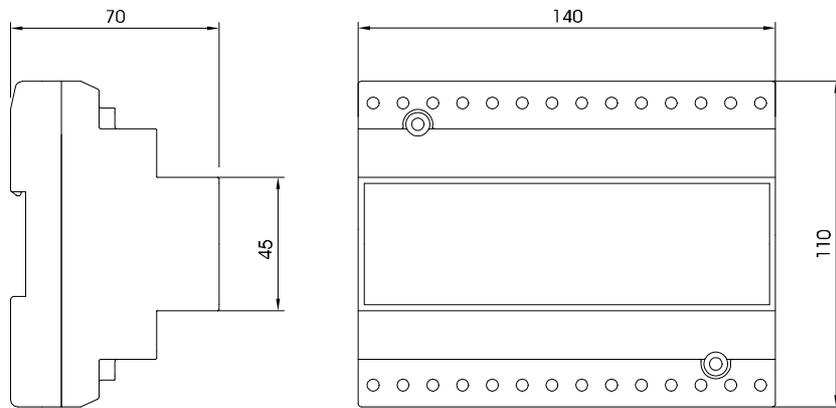
- Single phase 230 V a.c. +/- 20%.

1.3.- Characteristics of outputs and inputs:

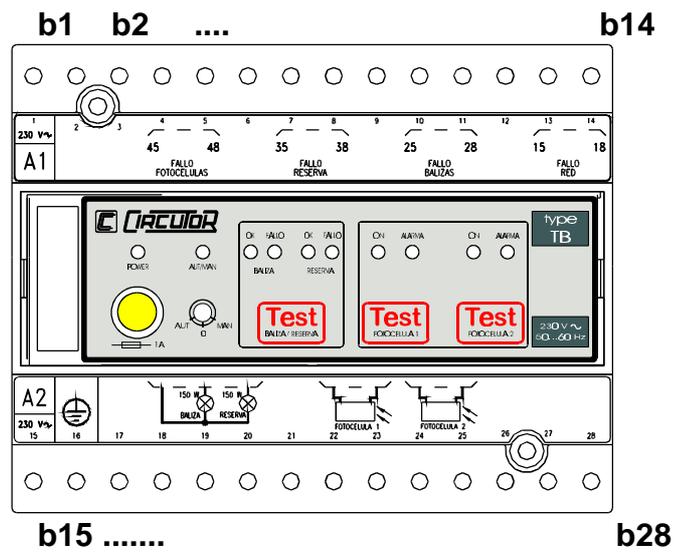
- Inputs for supply : 3 terminals ( II+T )
- Inputs for photocells : 4 terminals
- Alarm relay outputs : 4 terminals
- Outputs for lamps of service and reserve beacons : 2 terminals
- Commons : 1 for alarm relays  
1 for beacons

1.4.- Working temperature: -5 ... +50°C

1.5.- Dimensions :



## 2.- DESCRIPTION OF OUTPUT AND INPUT TERMINALS



- |           |               |                                |
|-----------|---------------|--------------------------------|
| terminals | b4-b5 -----   | relay for photocells fault     |
| terminals | b7-b8 -----   | relay for reserve lamps fault  |
| terminals | 10-b11 -----  | relay for beacon lamps fault   |
| terminals | 13-b14 -----  | relay for supply mains fault   |
| terminals | b15-b1 -----  | Power supply 230 V a.c.        |
| terminals | b22-b23 ----- | Photocell 1.                   |
| terminals | b24-b25 ----- | Photocell 2.                   |
| terminal  | b18 -----     | beacon and reserve lamp common |
| terminal  | b19 -----     | beacon lamps                   |
| terminal  | b20 -----     | reserve lamps                  |

### 3.- CONNECTION DIAGRAM

