

# ***MONIVA***



***PASSENGERS CARS DOORS' OPENING DIGITAL  
EQUIPMENT***

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## **PASSENGERS CARS DOORS' OPENING DIGITAL EQUIPMENT**

### **1. GENERAL**

The digital equipment MONIVA controls, depending on the cars' speed, some contacts for the doors' automatic, centralized and selective opening operation, at the passengers cars fitted up with electropneumatic operation system.

### **2. OPERATION PRINCIPLE**

MONIVA closes automatically the passengers cars' doors at 5km/h and blocks up the doors at 7km/h, pre-set up speeds. The equipment replays the doors closing order, after 5secs, when it receives the obstacles within the doors' signals. At the coming in the railway station, over 7km/h, the coaches' crew orders selectively the doors opening on the necessary side of the platform. Under 7km/h, the equipment unblocks the doors and under 5km/h it assures the local opening doors conditions.

MONIVA contains one speed transducer and a central unit. The speed transducer has two, redundant speed measuring ways, with optoelectronic elements and self-supply current loop.

### **3. TECHNICAL FEATURES**

**Power supply:** 24Vdc (-30%, +25%); optional 110Vdc;

**Max. speed:** 250km/h;

#### **Inputs:**

- 2 pulse signals for speed measuring;
- 10 digital signals for doors' control;

#### **Outputs:**

- 1 distance counter with 7 digits without back to zero,
- 8 digital signals for doors' control;
- 11 LEDs local signal lights;

#### **Communication:**

- **Interface:** RS 485;
- **Software for on-line transfer and displaying speed and doors' opening information to the coaches or locomotive crew, within the on-board graphic display panel;**

**Local memory:** 256 x 8-Bit STATIC RAM;

#### **Environmental conditions:**

- Operating temperature for the central unit: -25°C...+70°C;
- Operating temperature for the speed transducer: -35°C...+70°C;
- Relative humidity: max 95%, at 25°C;
- Vibration and shock: according IEC 571.

#### **Technical specification:**

CS 102/1999, approved by CFR CALATORI SA and AFER (Romanian Railway Authority).