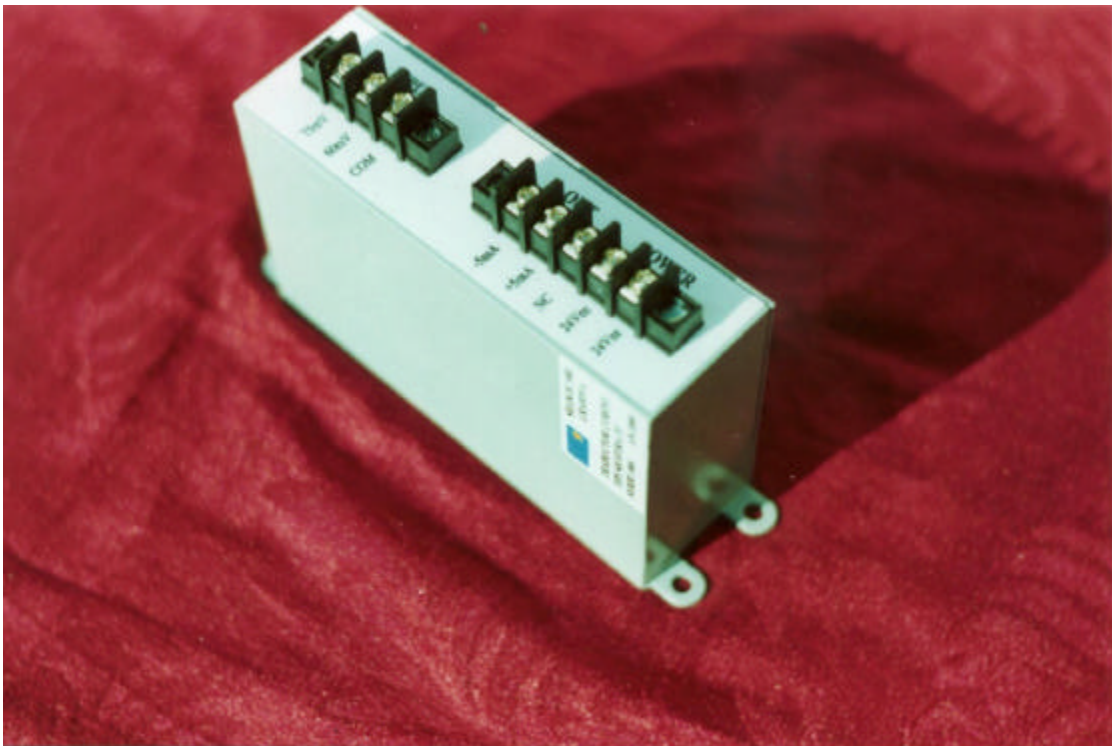


# ***SICOTRA-TC***



***RAILWAY TRACTION CONTROL ISOLATING CURRENT  
TRANSDUCER***

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## RAILWAY TRACTION CONTROL ISOLATING CURRENT TRANSDUCER

### 1. GENERAL

SICOTRA-TCs equipment amplify the dc voltage signals received, generally, from the shunts' terminals.

SICOTRA-TCs, current transducers, with their isolation of 5kVrms are adapted for the requirements of the dc electric traction rolling stock, ensuring the safety of the personnel.

### 2. OPERATION PRINCIPLE

SICOTRA-TCs, current transducers, perform the conversion of the input dc voltage information, measured at the shunts' terminals, in the output current information, which protects the output signal against the environment's noise.

The insulation, between the transducer's input circuits and output circuits, is achieved optically, maintaining the high performance linearity.

The dc voltage supply is a switching supply designed according railway standards.

The transducer supply circuit is isolated by transducer's input and output circuits.

### 3. TECHNICAL FEATURES

**Dimensions:** 154x98x48mm;

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

**Inputs:**  $U_{in} = 0-75\text{mVdc}$ ;  $0-60\text{mVdc}$ ;

**Max. Input voltage:**  $2 \times U_{in}$ ;

**Output:**  $0-5\text{mA}_{dc}$ ;

**Relative error:**  $\leq 1\%$ ;

**Offset error:**  $\leq 0,5\%$ ;

**Input-Output, Input-Supply, Supply-Output voltage insulation:** 5kV, 50Hz, 1min;

**Non-repetitive permitted transient surges:** 1,5kV, 50 $\mu\text{s}$ .

### Environmental conditions:

- **Operating temperature:**  $-25^{\circ}\text{C} \dots +70^{\circ}\text{C}$ ;
- **Relative humidity:** max 95%, at  $25^{\circ}\text{C}$ ;
- **Vibration and shock:** according IEC 571.

### 4. TECHNICAL SPECIFICATION:

CS 103/1999, approved by METROREX and AFER (Romanian Railway Authority).

### 5. HOMOLOGATION CERTIFICATE AFER: Serial OT, No. 114/12.07.2000