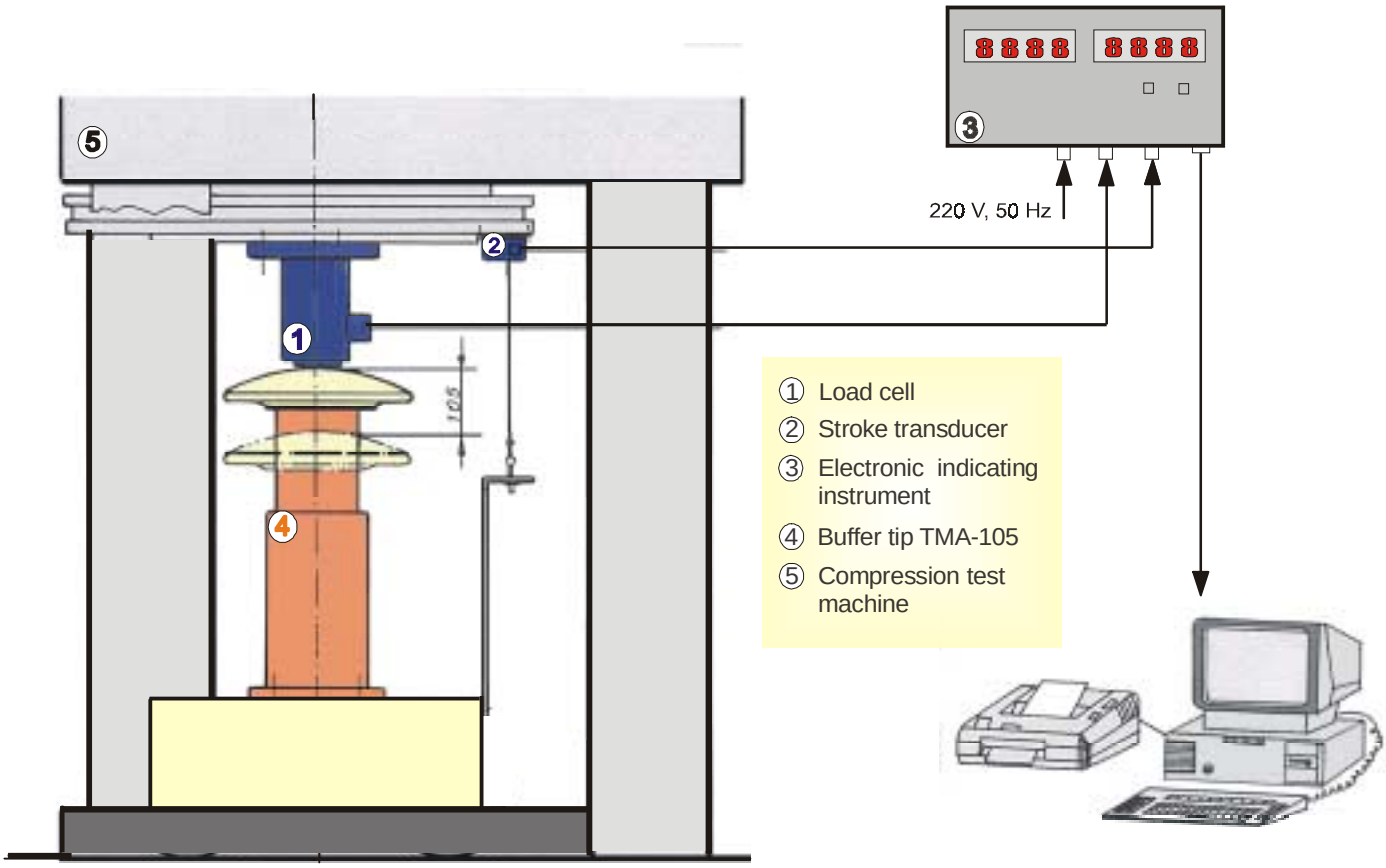
I C M E T
National Institute for Electrical Engineering
Research - Development - Testing

LABORATORY DEPARTMENT

1100 CRAIOVA - ROMANIA , Calea Bucuresti 144
FAX: +40 251 415 482; 40 251 416 726 ; e-mail marinescu@icmet.ro
Phone : +40 251 437 795; 40 251 436 866



EQUIPMENT FOR BUFFER FORCE-STROKE CHARACTERISTIC MEASUREMENT type IF/h 105

EQUIPMENT FOR BUFFER FORCE-STROKE CHARACTERISTIC MEASUREMENT type IF/h 105

GENERAL

The electronic equipment for measuring the force-stroke characteristics of the buffers type TMA-105 for railroad cars with standard track width is used to check the main parameters of the buffer namely:

- precompression force of flexible element in buffer (F0);
- compression force of the flexible element at the stroke end, for a stroke of 25;60; 100 mm (F25, F60, F100);
- stored mechanical work (W_e), for a compression force of the flexible element of at most 1000 kN;
- absorbed mechanical work (W_a).

TECHNICAL CHARACTERISTICS

- Measuring range:
  - o - force: 0...2000 kN
  - o - stroke 0...1000 mm
- Accuracy class: 0.5
- Rated operation conditions:
  - - environmental temperature: $+5^0$C ....+ 40^0C
  - - relative air humidity: 20 ... 80 %, without condensation
  - - atmospheric pressure: 70 ... 1106 kPA
- Supply conditions: 220 V ±10 %, 50 Hz ± 5 %
- Limit temperature range for storage and transport: -25 ....+ 40^0C
- Protection class: I
- Standard protection degree: IP 44
- Rated operating time: 10 years

STRUCTURE

Constructively, the measuring equipment is fitted with:

- Load cell with tensoresistors, for compression;
- Stroke transducer;
- Electronic indicating instrument for force and stroke.

FUNCTIONS

- Force and stroke measurement and their value display
- Optionally, subsequent computer processing of the measuring information with a view to getting supplementary data, for example:
  - display of force and stroke values on the screen ;
  - display of force-stroke characteristic on the screen, or its printing;
  - printing of the coordinates for the force-stroke characteristics points and of the values F60, F100, W_e, W_a and W_a/W_e