

## Eurometer



### General Characteristics

EUROMETER is a compact solution that allows the measurement of the voltage of the catenary line and in combination with its interface (IRTL) distributes the information through the whole train. Having just one certified product that integrates so many functions, allows easy communication and interchange of datas, with the maximum control on the whole productive process.

### Functions

EUROMETER's functions are highly customized according to our customers' needs or suggestions coming from our experience:

- Detection and measurement of the instantaneous catenary AC and DC voltages
- Analog and/or digital output signals
- Insulated optical fiber output
- On-line diagnostic

Possible options may include:

- Measurement of harmonics
- Measurement of energy consumption

### Environmental Performance

The device is compliant with all the regulations of the rail market. All the components are homologated for the industrial temperature range (from -40°C to +85°C - Class TX - EN 50125-1) and ensure a proper working in the worst environmental conditions. The precision is 1% on the whole TX range, 0,5% at 23°C.

Maximum Speed of the rolling stock (on which the device is installed)	350 km/h
Storage temperature	from -40°C to +85°C
Class of air temperature (EN50125-1)	TX (from -40°C to +85°C)
Class of altitude range (EN50125-1)	A1 (up to 1400m)
Relative humidity at 40°C	95%
Maximum solar radiation (EN50125-1)	1120W/m2
Protection level for terminal box (EN60529)	IP 66 (RTL); IP 54 (IRTL)
Transvers acceleration (EN50125-1)	GT1
Longitudinal acceleration	GL1
Shock and vibrations	EN 61373
Contaminating fluids (60721-3-5)	5F3
Lateral wind withstand	up to 25m/s, gusts up to 40 m/s 1s
Weight	18kg (RTL) + 7.5kg (IRTL)
Rolling Stock Category (NF F 16-101 and NF F 16-102)	A1

### Electrical Performances

The EUROMETER operates under the following four different power supply systems (EN 50163 - Railway Systems Supply Voltages).

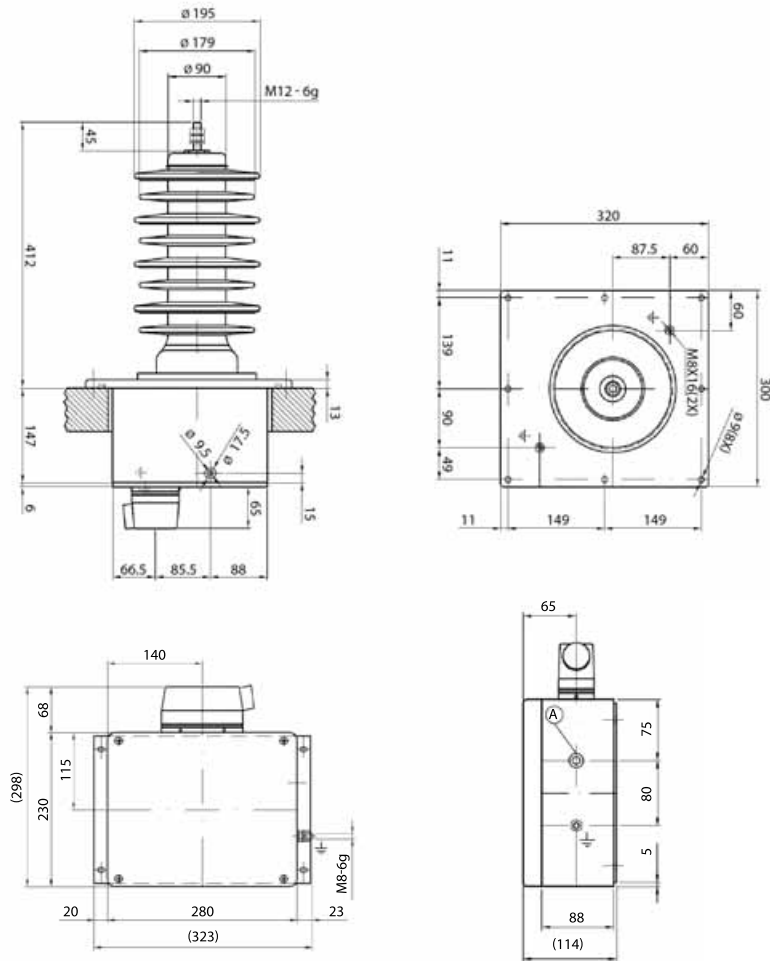
Electrification System/Nominal Voltage	Working Range	
DC 1.5 kV	900 ÷ 2.200	V <sub>DC</sub>
DC 3kV	2.000 ÷ 4.000	V <sub>DC</sub>
AC 15kV 16 2/3 Hz	10.000 ÷ 19.000	V <sub>AC</sub>
AC 25kV 50 Hz	17.000 ÷ 30.000	V <sub>AC</sub>



# Electronic

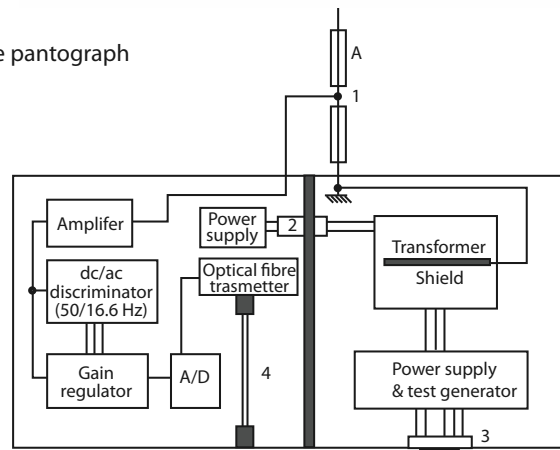
## Transducers: Eurometer

### Overall Dimensions (mm)



### Functional Scheme

Terminal A is connected to the pantograph



1. High voltage divider
2. Connector for communication between two separate internal compartments
3. Power supply connector
4. Internal optical fibre



**KNORR-BREMSE**



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