



Catalog

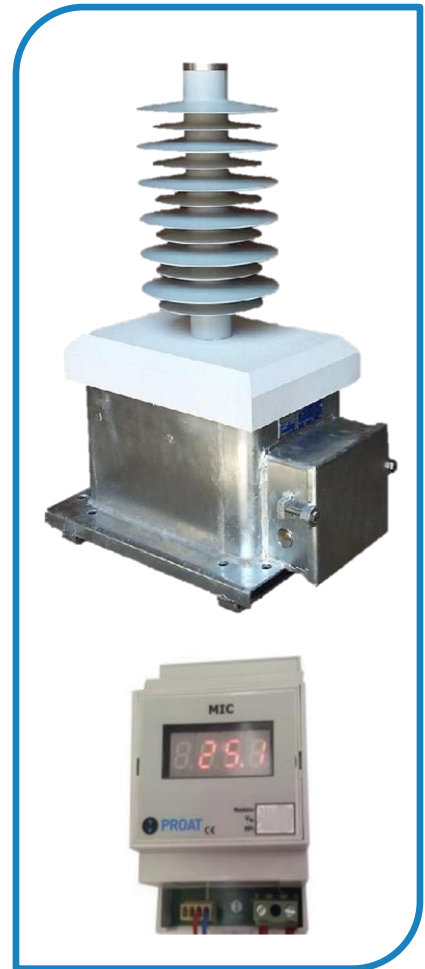
VFR+MIC **Epoxy Silicone** **Transformer**

Voltage Detectors
for AC Catenary

VFR + MIC

AC Catenary Voltage Detectors

- ✓ Silicone-Epoxy Transformer **25kV_{AC} – 100 V_{AC}**
 - ✓ Proportional output from **0-100 V_{AC}** relative to catenary voltage
 - ✓ **0,12 mm** copper primary winding
 - ✓ **1,3 mm** copper secondary winding
 - ✓ Primary winding made with **epoxy resin** insulation class E (CEI 60085 Standard)
 - ✓ **Encapsulated in galvanized Steel** to prevent fragment projection
 - ✓ **Non-polluting:** free of oils and fluorinated gases as insulating materials
 - ✓ Weight: **40 kg**
 - ✓ **Leakage line** of **1950 mm**
 - ✓ Lifetime **>30 years**, maintenance free
 - ✓ Exclusively **vertical** mounting
- ❶ MIC-25 – AC Catenary Voltage Detector**
- ✓ **MIC-25** device displays catenary voltage
 - ✓ Installed in DIN rail enclosure
 - ✓ Auxiliary power supply **24 V_{DC}** or **230 V_{AC} 50Hz** depending on model



❶ Applications

AC voltage presence detection in railway installations:

- High-speed trains
- Conventional AC trains
- AC metro systems



Transformer Model

Model	Primary Voltage	Secondary Voltage
VFR-25Kv-100	25 kV _{AC}	100 V _{AC}

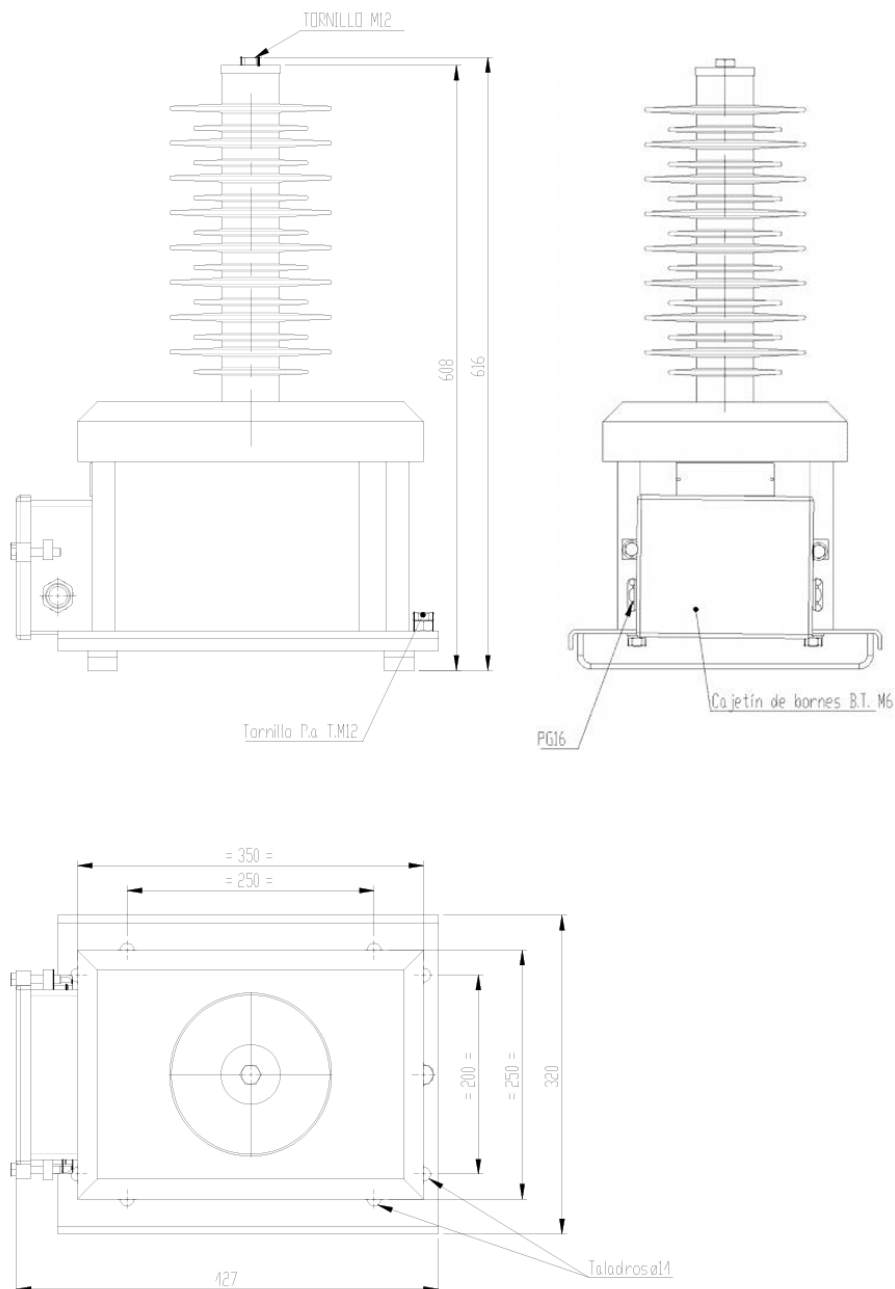
Display Model

Model	Display range	Auxiliary Voltage
MIC-25kv	0-30 kV _{AC}	230 V _{AC}
MIC-25kv-24	0-30 kV _{AC}	24 V _{DC}

Technical data

MODEL	VFR-25Kv-100
Electrical Characteristics	
Rated Primary Voltage - U _{pn}	27.5 kV
Rated Secondary Voltage - U _{sn}	100 V
Maximum Service Voltage - U _m	36 kV
Rated voltage withstand at industrial frequency:	
Between primary and secondary to ground	70 kV
Between secondary and ground	3 kV
Maximum impulse voltage (peak value)	170 kV
Accuracy power	100 VA
Accuracy class	1
Rated frequency (f)	50/60 Hz
Permissible continuous overvoltage (Un) (kV)	1,2 Upn
Mechanical Characteristics	
Tightening torque for M6 screws	4 Nm
Tightening torque for M12 screws	35 Nm
Primary terminal material	Aluminum
Ground terminal material	Stainless-steel
Sealed secondary terminal cover, sealable with cable gland connection	
Galvanized Steel tank to prevent corrosion	
Weight	40 kg
Leakage line	1950 mm
Other Characteristics	
Lifetime	>30 years
Enclosure material	Silicone
Internal material	Epoxy
Maintenance-free	

VFR - Measurements



MIC - Measurements

