



## ELECTRONIC DEVICE FOR VOLTAGE PRESENCE DETECTION

Voltage presence relay is normally used in dc circuits when the control of disconnectors or other safety devices must be locked in case the bus voltage is above a set value.

It is used in all the Traction systems like tramways, trolley bus, Metro and Railways Power Supply Substations.

Two versions are available:

**CVT1500** - for 750Vdc & 1500Vdc systems

**CVT3000** - for 3000Vdc systems

CVT1500 is in compliance with the most severe International Standards and it has been fully tested by independent laboratories for EMC compatibility.

Voltage level can be set in a wide range (300-800V) by means of an internal dip-switch, thus allowing to use the device in systems with different nominal voltages.

CVT1500 includes a complete self diagnostic test which automatically checks the relay operation and gives an alarm in case of Internal Relay Failure through a dedicated output contact. The device is equipped with: one output relay, with 1 high capacity NO contact for trip; one output relay with 2 C/O contacts for signalisation; one output relay with 2 C/O contacts for diagnostics. A green LED is provided for signalisation of Auxiliary Power supply presence.

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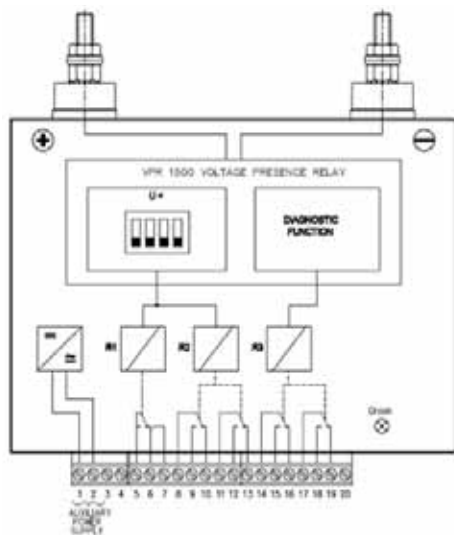
### Reference Standards

- CE Directives
  - EN60255-5
  - EN60068-2
  - EN61000-6-2
  - EN61000-6-4
  - EN50124
  - EN50121-5
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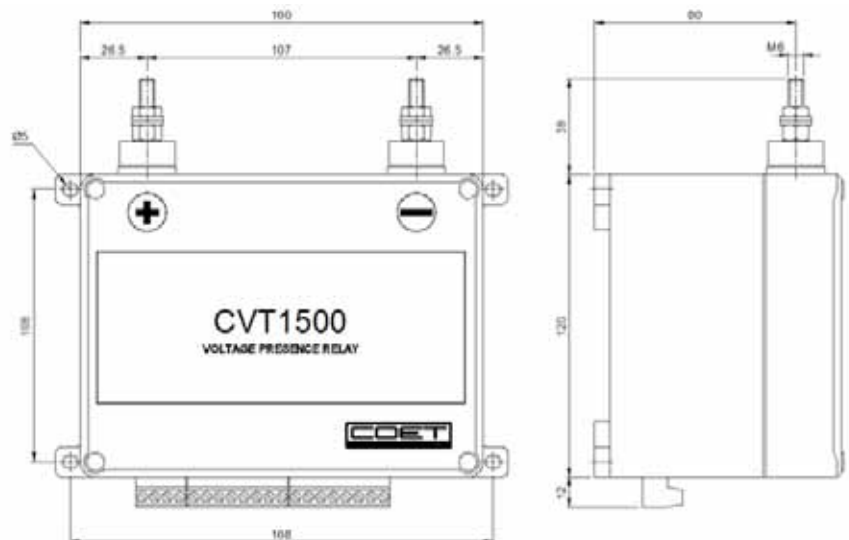
## ELECTRICAL CHARACTERISTICS

<b>Power Supply</b>	<ul style="list-style-type: none"> <li>Type 1: 24Vdc</li> <li>Type 2: 110...132Vdc <math>\pm 20\%</math></li> </ul>
<b>Burden</b>	<ul style="list-style-type: none"> <li>Type 1: <math>\leq 2VA</math></li> <li>Type 2: <math>\leq 5VA</math></li> </ul>
<b>Voltage Setting Range</b>	<ul style="list-style-type: none"> <li>300 <math>\div</math> 800Vdc</li> </ul>
<b>Signalisation Outputs</b>	<ul style="list-style-type: none"> <li>1 Relay: 1 NO contact - rating: 5A@250Vac - breaking capacity 0,5A@110Vdc L/R=40ms</li> <li>1 Relay: 2 C/O contacts - rating: 5A@250Vac - breaking capacity 0,3A@110Vdc L/R=40ms</li> </ul>
<b>Diagnostic Output</b>	<ul style="list-style-type: none"> <li>1 Relay: 2 C/O contacts - rating: 5A@250Vac - breaking capacity 0,3A@110Vdc L/R=40ms</li> </ul>
<b>Accuracy</b>	<ul style="list-style-type: none"> <li><math>&lt; 5\%</math></li> </ul>
<b>Signalisation delay on Voltage Presence</b>	<ul style="list-style-type: none"> <li><math>&lt; 50ms</math></li> </ul>
<b>Signalisation delay on Voltage absence</b>	<ul style="list-style-type: none"> <li>100ms</li> </ul>
<b>Operation ambient Temperature</b>	<ul style="list-style-type: none"> <li>-10 <math>\div</math> 60°C</li> </ul>
<b>Storage Temperature</b>	<ul style="list-style-type: none"> <li>-40 <math>\div</math> 85°C</li> </ul>

## WIRING DIAGRAM



## OVERALL DIMENSIONS



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The performances and the characteristics reported in this manual are not binding and can be modified at any moment without notice.