



The High Sensitivity Earth Fault protective system RGT-64 is normally used in all Traction Power Supply DC Switchboard for detecting Leakage current between metal panel structure and earth. Current detection can be set uni-directional or bi-directional.

The system includes two main units connected by means of fibre optic cable: a microprocessor based protective relay for DIN-mounting rail execution (DIN-EN50022) and a current sensor which can be selected between Hall Effect Sensor (64-T) and Shunt (64-SH).

Hall Effect sensor allows a very high sensitivity: 2A with a rated current of 1.000A.

Relay unit is equipped with a very bright LED graphical display which, along with 4 buttons keyboard and 3 LEDs for signalisations, gives a very user-friendly HMI allowing relay settings, measuring and events recorded visualisation.

On relay front face a mini-USB port is also available for Laptop connection whereas implementation in SCADA system is possible through RS485 port with MODBUS RTU protocol.

Relay is equipped with 3 C/O Output relays for alarm and trip and 2 Digital inputs for blocking function and remote Reset.

A complete self diagnostic test is automatically carried out by the relay: in case of internal relay failure (IRF) an alarm is given through a dedicated C/O type output relay.

---

## Reference Standards

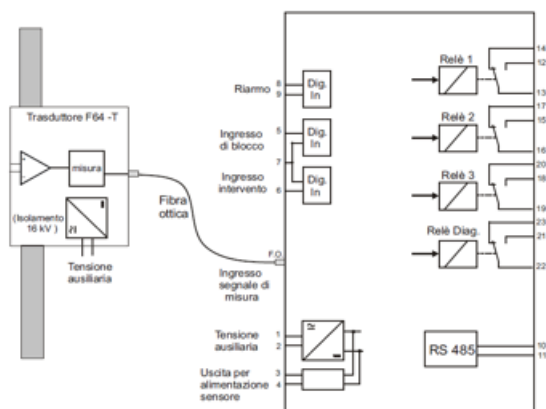
- Directive CE
  - EN60255-5
  - EN60068-2
  - EN61000-6-2
  - EN61000-6-4
  - EN50124
  - EN50121-5
-

## ELECTRICAL CHARACTERISTICS

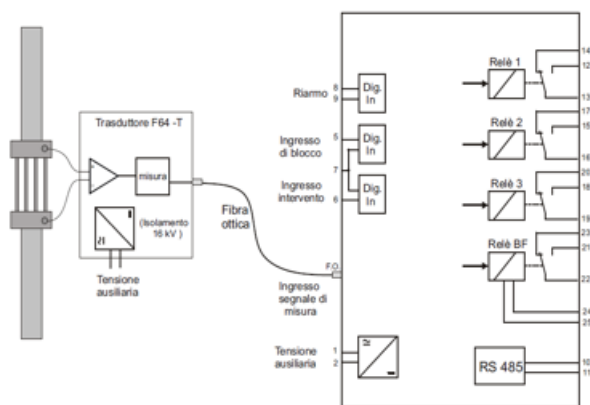
<b>Power Supply</b>	<ul style="list-style-type: none"> <li>• 24Vdc or 110 - 125Vdc</li> </ul>
<b>Measurement Input</b>	<ul style="list-style-type: none"> <li>• 64-T: Hall Effect Sensor</li> <li>• 64-SH: Shunt</li> </ul>
<b>Measurement Accuracy</b>	<ul style="list-style-type: none"> <li>• 0,5% from 50 to 200 A</li> <li>• 2% from 2 to 50 A</li> </ul>
<b>Rated Current</b>	<ul style="list-style-type: none"> <li>• 1.000A</li> </ul>
<b>Maximum admissible current</b>	<ul style="list-style-type: none"> <li>• 75 kA for 100 msec.</li> </ul>
<b>Transducer/Shut Output</b>	<ul style="list-style-type: none"> <li>• polymeric fibre optic (max. lenght: 20m)</li> </ul>
<b>Trip Time delay range</b>	<ul style="list-style-type: none"> <li>• 0.03 - 60s</li> </ul>
<b>Output Relays</b>	<ul style="list-style-type: none"> <li>• 3 with C/O contacts</li> </ul>
<b>Diagnostic Relay</b>	<ul style="list-style-type: none"> <li>• 1 with C/O contact</li> </ul>
<b>Output relays ratings</b>	<ul style="list-style-type: none"> <li>• 5A @ 250 Vac - 2 A @ 30 Vdc - 250mA @ 110Vdc</li> </ul>
<b>Reset of Output Relays</b>	<ul style="list-style-type: none"> <li>• Manual from Local Keyboard</li> <li>• Automatic @ 90% of the trip level</li> <li>• Remote via digital Input</li> </ul>
<b>Digital Inputs</b>	<ul style="list-style-type: none"> <li>• 3 for Remote Trip, Remote Reset, Blocking Function</li> </ul>
<b>Serial Port</b>	<ul style="list-style-type: none"> <li>• RS 485</li> </ul>
<b>Protocol</b>	<ul style="list-style-type: none"> <li>• Modbus Rtu</li> </ul>
<b>Display</b>	<ul style="list-style-type: none"> <li>• 128x128 back-light blue graphical</li> </ul>
<b>Keyboard</b>	<ul style="list-style-type: none"> <li>• 4 buttons</li> </ul>
<b>Leds</b>	<ul style="list-style-type: none"> <li>• 3 (Green for Power-on and Red for Trip)</li> </ul>
<b>Enclosures</b>	<ul style="list-style-type: none"> <li>• Polycarbonate</li> </ul>
<b>Terminals</b>	<ul style="list-style-type: none"> <li>• 2,5mm<sup>2</sup> max</li> </ul>
<b>Execution</b>	<ul style="list-style-type: none"> <li>• 6 modules - DIN-EN50022 rail mounting</li> </ul>

## WIRING DIAGRAM

**RGT-64/T-** with Hall Effect Transducer Input



**RGT-64/SH** - with Input from Shunt



**COET Costruzioni elettrotecniche s.r.l**

via Civesio 12, 20097 San Donato Milanese (Mi), Italy  
 ph. +39.02.842934 fax. +39.02.5279753 email. coet@coet.it www.coet.it

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