

# Electron IoT App Pre-Registe now



## Alerts and Notifications

Receive notifications about the status of your equipment in real time.



## MONITOR EVERY DAY

You can easily monitor your equipment anytime you want in the palm of your hand.



## Dry-Type Transformers

Product intended for monitoring dry transformers.



DISPONÍVEL NO  
**Google Play**



© 2021 ELECTRON DO BRASIL TECNOLOGIA DIGITAL LTDA.

 [android.electron.com.br](https://android.electron.com.br)

Presentation Folder

THE IMAGES IN THIS FOLDER ARE ILLUSTRATIVE. MAY BE CHANGED.

## > EP4-IoT Temperature Monitor

Data transmission, supervision and remote monitoring of your transformer without the need for complex and costly infrastructure.



### Communication with multiple platforms

Technology and Innovation in Data Sharing



### Communication protocols



### Data Transmission



Bluetooth



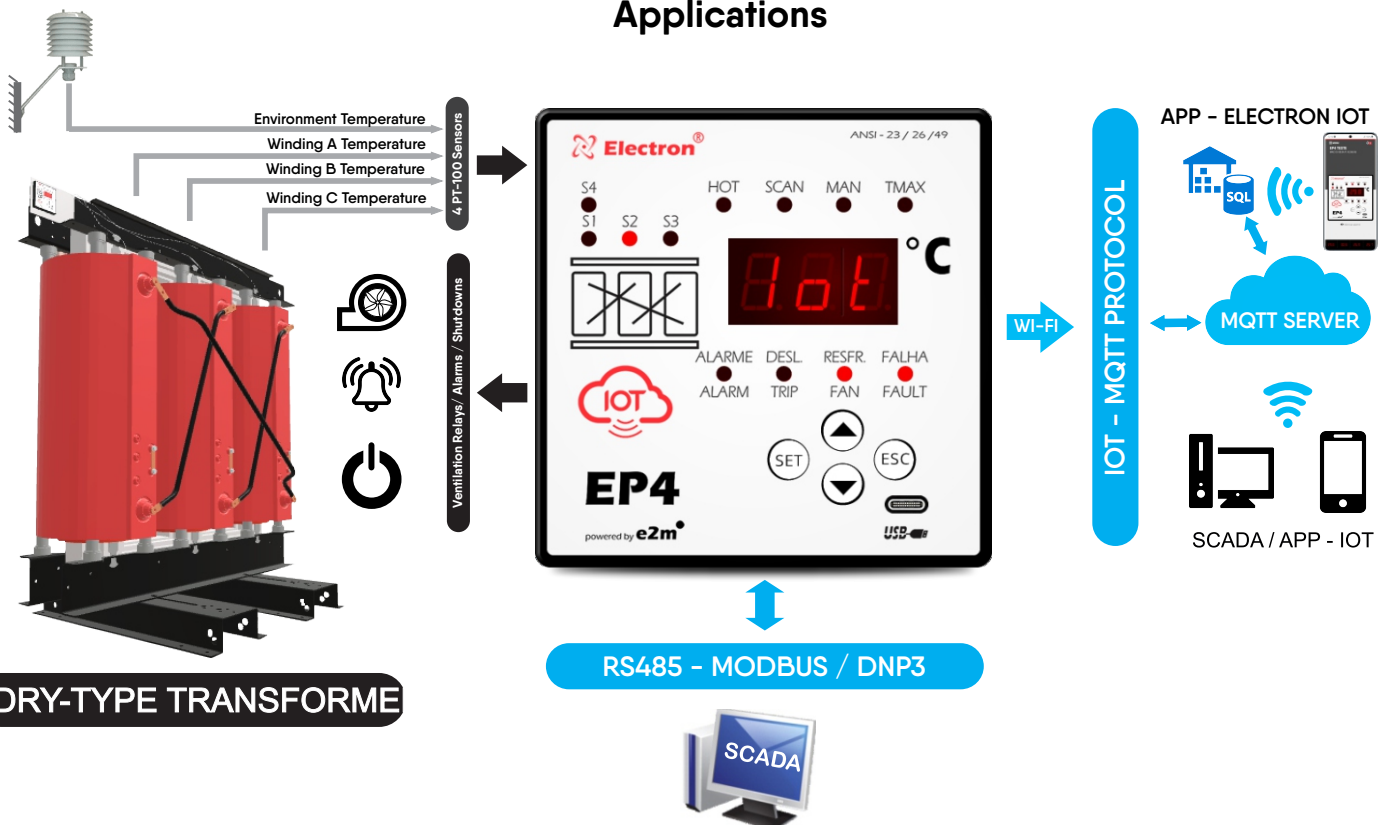
### Certifications and Tests



### Application for monitoring

android 

### Applications



## Power Supply and Dimensions

- Compact Equipment 98x98x37mm, within DIN standards for panel mounting..
- Universal Power Supply 24–275 Vdc / Vac.

## Integrated WIFI Modem

- 802.11 b/g/n/e/i Standards.
- WPA/WPA2/WPA-Enterprise, Safety Protocol.
- Encryption AES/RSA/ECC/SHA.
- Data Rate up to 150 Mbps.
- built-in antenna of 3 dBi (decibel isotropic).
- Transmission Power up to 21 dBm (decibel milliwatt).

## Bluetooth

- Class 2 – 2,5 mW (4 dBm).
- Encryption type FIPS.
- Version 4.2 BR / EDR and BLE (Low Energy).

## USB

- Version 2.0.
- Data Rate 480Mbps.
- Connection Type Micro-B

## RS-485

- ANSI/TIA/EIA-485-A Standard.
- Max. 32 equipments.
- Half duplex.
- Multipoint.
- Max. distance 1.200 meters.
- 2 metallic wires.
- Automatic speed from 1,200 to 57,600 bps.

## Type tests attended

- Applied Voltage (IEC 60255-5): 2kV / 60Hz / 1 min. (against land).
- Voltage Impulse (IEC 60255-5): 1.2/50 sec. / 5kV / 3 neg. and 3 pos. / 5 sec. Interval.
- Electrostatic Discharges (IEC 60255-22-2): Air mode = 8KV / Counted mode = 6 KV.
- Immunity to radiated electromagnetic disturbance (IEC61000-4-3): 80 to 1000 MHz / 10V/m.
- Immunity to Fast Electrical Transients (IEC60255-22-4): Power/Input/Outputs=4KV/common 2Kv.
- Surge Immunity (IEC60255-22-5): phase/neutral 1KV, 5 per polar (±) – phase-ground/neutral-ground 2KV, 5 per polar (±).
- Immunity to Conducted Electromagnetic Disturbances (IEC61000-4-6): 0.15 to 80 MHz / 10V/m.
- Climatic Test (IEC60068-21-14): – 40°C + 85°C / 72 hours.
- Vibration Resistance (IEC60255-21-1): 3 axes / 10 to 150Hz / 2G / 160min/axis.

## Communication Protocols

- MQTT – TLS/SSL.
- DNP3 – Level 1.
- Modbus-RTU.

## Human-machine interface (HMI)

- High-brightness red 3-digit numeric display..
- Simultaneous indication of the 4 monitored temperatures.
- 4 Navigation keys.
- 13 LEDs on the front for event indications.
- Intuitive menus for consultation and parameterization

## Measurement Inputs

- 4 inputs for temperature measurement with 3-wire PT100 sensor (EN60751-DIN43760).
- Accuracy of 0.5% (FS)
- Temperature measurement range 0°C to 200°C.

## Digital Outputs to Relays

- 01 Relay (NAF) with a capacity of 10 amps for Temperature Alarm.
- 01 Relay (NAF) with a capacity of 10 amps for FAN (cooling) with programmable activation timing.
- 01 Relay (NAF) with a capacity of 10 amps for TRIP (shutdown) with programmable activation delay.
- 01 Relay (NAF) with a capacity of 10 amps for Fault Indication (watchdog).
- Intuitive menus for consultation and parameterization.

## Analog Output

- 01 Analog Output (Active 15Vdc) from 0 to 1mA, 0 to 5mA, 0 to 10mA, 0 to 20mA or 4 to 20mA configurable by the user.



FAQ and Technical Support

## Technical Support

e-mail Contact us

✉ vendas@electron.com.br

Do you need help? Contact our specialist team

Contact us

☎ +55 11 4496-3627 📞 +55 11 94133-7472



© 2021 ELECTRON DO BRASIL TECNOLOGIA DIGITAL LTDA.

 [www.electron.com.br](http://www.electron.com.br)

