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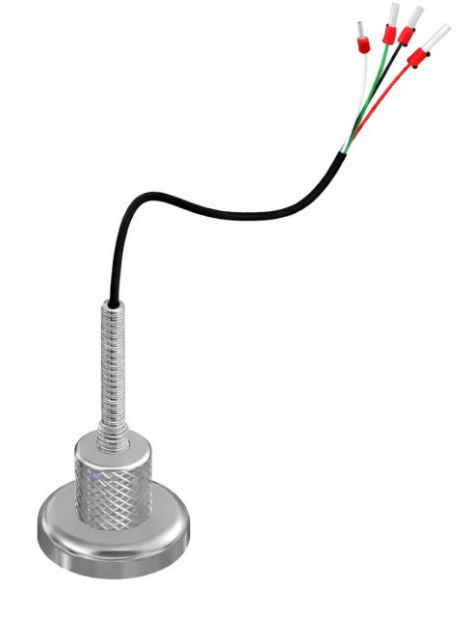

PT-100 MAGNETIC SENSOR

CATALOGUE

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INTRODUCTION

The PT100 magnetic temperature sensor is built to strict quality standards, designed to work in oil transformers, machine furnaces. Meets the levels of requirements, support and reliability according to IEC, DIN, IEEE, ABNT.
Ideal for temperature measurement anywhere on the surface of the transformer or machine tank, does not require well, fixing points or glue for adhesion and contact with the metal surface (magnetic steel). The principle of measurement is to evaluate the variation of electrical resistance with temperature using the temperature coefficient of pure platinum is 0.385 Ohm/K. as per IEC 751 (DIN 43760). IEC data are valid for nominal resistance values of 100 ohms at 0°C. This standard also defines tolerance classes A and B in the range of – 200 to +850 °C.

TECHNICAL DATA

PT-100 MAGNETIC SENSOR	
Max Magnetic Energy Density	KNH48; N = Neodym; 48 = (48 MegaGauss)
Attraction Force	+90Kg
Temperature Measurement Input	1 Sensor - PT100 **(EN 60751 - DIN 43760)**
Measurement Range	-40ºC to + 230ºC
Isolation	2Kv
Accuracy	0.03°C
Interchangeability	±0.06%, ±0.2°C
Sensitivity	0.39%/°C
Magnetic Material	Neo-Iron-Boron (NdFeB)
Cable material	Teflon – 3x24AWG
Magnetic Part Dimension	20mm ⌀ 40mm
Cable length	As specified by the customer
Fixation	Magnetic

Table 1 – Technical data of the Magnet

DIMENSIONS

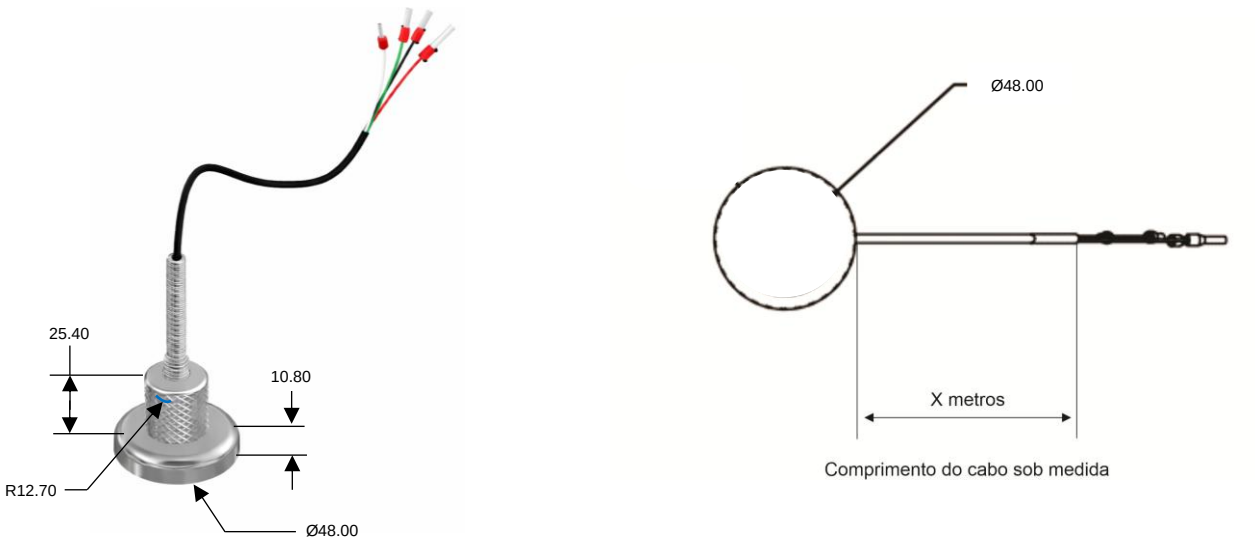

Fig. 1 – Dimensions

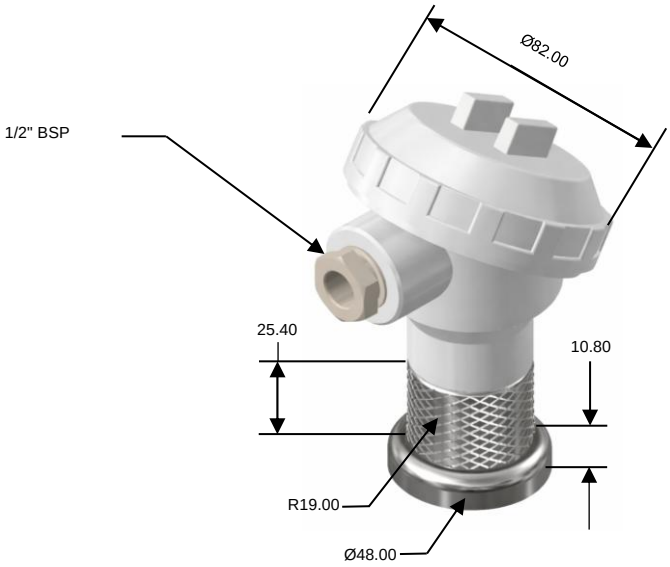

Fig. 2 – Dimensions

CONNECTION DIAGRAM STFE PT-100 SENSOR

Due to its high precision, the PT-100 3-wire sensor is widely used in the market, as the possibility of measurement error due to the cable is greatly reduced due to the compensation principle of the third terminal of the sensor. PT-100 wire is widely applied in industries, for monitoring electrical machines, motors, dry type transformers, MCCs, etc.

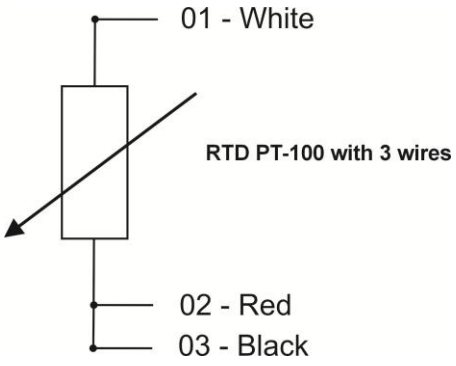

Fig. 3 – Connection diagram

Resistance (Ohms) x Temperature (°C): https://electron.com.br/site/produtos/rtd-pt100-2/

GETTING TO KNOW THE MAGNETIC SENSOR

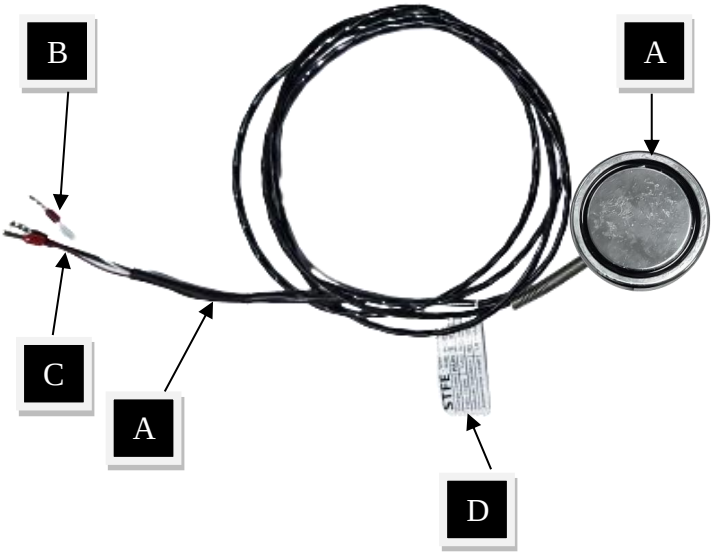

Fig. 3 – Getting to know the magnetic sensor Fig. 4 – Magnetic area

Getting to know the compontes:

- A – 10.80x48mm Neodymo-Iron-Boron (NdFeB) magnet, part that must be allocated at the temperature measurement point.
- B – Green Wire (With shielding mesh and terminal for grounding).
- C – PT100 at 3 wires.
- D – Identification label (Serial number, Electron code, date of manufacture and Description).
- E – Teflon – 3x24AWG (length according to customer request).

TYPE TEST PERFORMED

Applied voltage: 2 KV / 60Hz / 1 min. (against earth).

APPLICATION EXAMPLE

The Sensor Mágnético is compatible for any Equipment that does PT100 Reading.

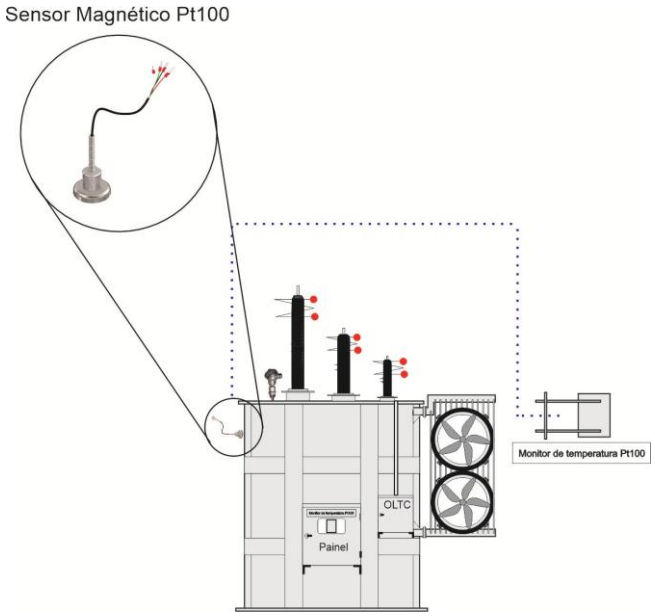

fig. 5 – Application Example

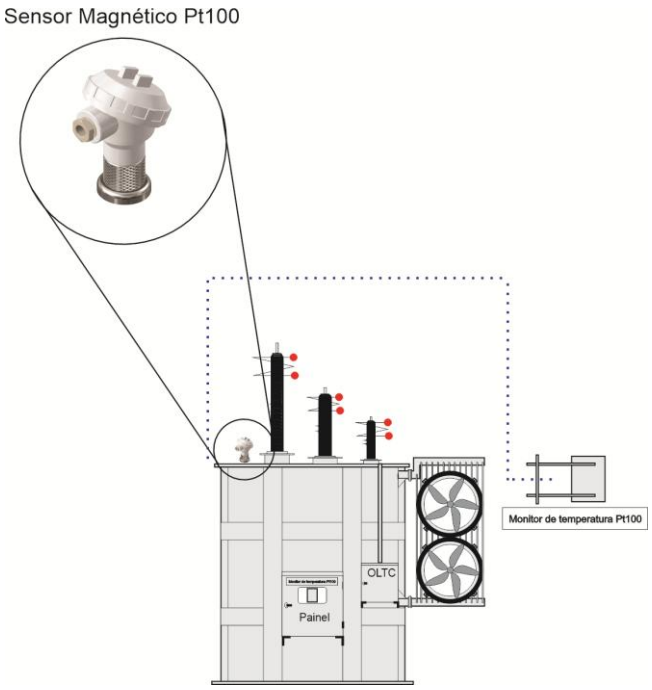

fig. 6 – Application Example

SPECIFICATIONSFOR ORDER

- Magnetic Temperature Sensor PT-100, inform cable length in the request.

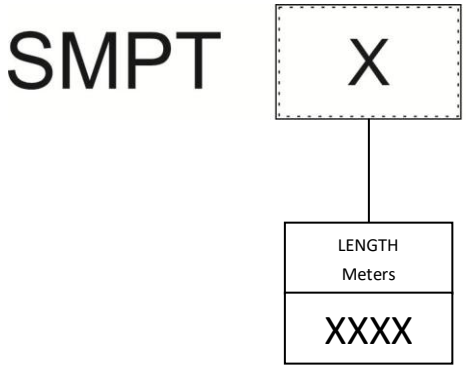

Fig. 6 – Specification for order