

RESISTANCE THERMISTOR TCP-0690

The engines of the BAO2, ДА3О4, and А4 series are equipped with TCP-0690 resistance thermocouples.

The principle of operation of the resistance thermocouple is based on a change in the electrical resistance of the material from which the coil of the sensing element is made, depending on the temperature of the controlled environment.

The sensing element of the resistance thermocouple is a platinum wire spiral, which is located in a ceramic frame. The output ends are sealed with heat-resistant paste.

The sensing element is installed in a protective armature made of 12x18H 10T steel.

MAIN TECHNICAL DATA AND CHARACTERISTICS:

1. Operating range of measured temperatures, °C - from minus 50 to 200;
2. Symbol of the nominal static characteristic - Pt100;
3. Class of admission - B;
4. Nominal resistance value at 0°C, R_0 - 100,00;
5. Temperature coefficient of the resistance thermocouple α , °C⁻¹ - 0,00385;
6. Limit of permissible deviation of resistance from the nominal static characteristic, °C - $\pm(0,3+0,005 |t|)$, where t is the measured temperature value, °C;
7. Thermal reaction time $\tau_{63,2\%}$, c, no more than - 9;
8. Conditional pressure, P_y , MPa - 0,63;
9. Maximum measuring current (I_{max}), mA - 1,0;
10. Material of protective reinforcement - steel 12X18H10T;
11. Length of the mounting part/length of the resistance thermocouple, mm - 30/1970;
12. Assigned service life, hours - 80000;
13. Weight, kg, not more than - 0,05.