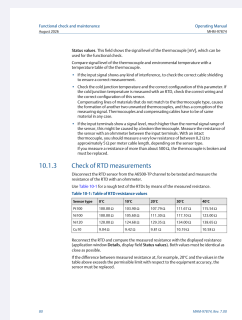


FIELD INSTALLATION QUICK GUIDE

Installation Instructions

A6500-TP
temperature process card



PRODUCT	A6500-TP
FAMILY	AMS 6500 ATG protection system
FUNCTION	temperature process card
STATUS	Verify exact installed equipment

Prepared by Amikon Limited from Emerson documentation. This guide supplements the complete manufacturer manual and site procedure.

01

CONFIRM THE ORDERED CONFIGURATION

Input channels	4 independent channels
RTD support	Pt100, Pt1000 and Ni100
Thermocouple support	Type J, K, T, E, R, S, B and N
Voltage inputs	0 to 1 V and 0 to 10 V
Current inputs	0 to 20 mA or 4 to 20 mA
Digital inputs	2 channels

02

PREPARATION AND CONNECTION

- Confirm the complete A6500-TP article number and installed revision.
- Isolate applicable electrical and process energy using the approved site procedure.
- Record every connector, cable, terminal, shield and protective-earth connection before removal.
- Install without forcing keyed parts, then secure terminals, latches, fasteners and cable supports.

Functional check and maintenance
August 2026

Operating Manual
MHM-97874

Status values. This field shows the signal level of the thermocouple [mV], which can be used for the functional check.

Compare signal level of the thermocouple and environmental temperature with a temperature table of the thermocouple.

- If the input signal shows any kind of interference, to check the correct cable shielding to ensure a correct measurement.
- Check the cold junction temperature and the correct configuration of this parameter. If the cold junction temperature is measured with an RTD, check the correct wiring and the correct configuration of this sensor.
Compensating lines of materials that do not match to the thermocouple type, causes the formation of another two unwanted thermocouples, and thus a corruption of the measuring signal. Thermocouples and compensating cables have to be of same material in any case.
- If the input terminals show a signal level, much higher than the normal signal range of the sensor, this might be caused by a broken thermocouple. Measure the resistance of the sensor with an ohmmeter between the input terminals. With an intact thermocouple, you should measure a very low resistance of between 0,2 Ω to approximately 5 Ω per meter cable length, depending on the sensor type.
If you measure a resistance of more than about 500 Ω , the thermocouple is broken and must be replaced.

10.1.3 Check of RTD measurements

Disconnect the RTD sensor from the A6500-TP channel to be tested and measure the resistance of the RTD with an ohmmeter.

Use [Table 10-1](#) for a rough test of the RTDs by means of the measured resistance.

Table 10-1: Table of RTD resistance values

Sensor type	0°C	10°C	20°C	30°C	40°C
Pt100	100.00 Ω	103.90 Ω	107.79 Ω	111.67 Ω	115.54 Ω
Ni100	100.00 Ω	105.60 Ω	111.30 Ω	117.10 Ω	123.00 Ω
Ni120	120.00 Ω	124.68 Ω	129.35 Ω	134.00 Ω	138.65 Ω
Cu10	9.04 Ω	9.42 Ω	9.81 Ω	10.19 Ω	10.58 Ω

Reconnect the RTD and compare the measured resistance with the displayed resistance (application window **Details**, display field **Status values**). Both values must be identical as close as possible.

If the difference between measured resistance at, for example, 20°C and the values in the table above exceeds the permissible limit with respect to the equipment accuracy, the sensor must be replaced.

04 COMMISSIONING CHECKS

- 01 Confirm product identity and mechanical seating.
- 02 Verify the documented supply before energising.
- 03 Inspect polarity, shielding and protective-earth connections.
- 04 Restore power in the approved sequence and observe status indications.
- 05 Test each connected input, output or communication path.
- 06 Record diagnostics and functional-test results before return to service.

05 CONTROLLED DOCUMENT

Official source	Emerson official manufacturer documentation
Product record	A6500-TP
Manufacturer	Emerson
Warranty	12 months from AMIKON
Support	INFO@AMIKON.CN

AMIKON PRODUCT SUPPORT

+86-18020776786

INFO@AMIKON.CN

AMIKONG.COM