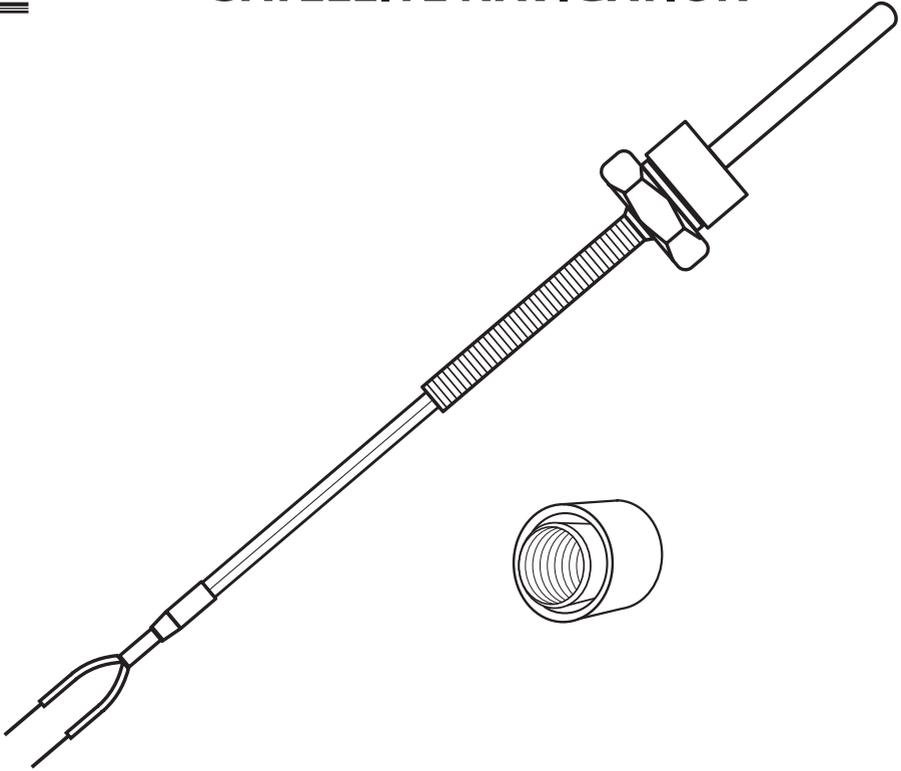




MMEGTPX0AX010

AvMAP

SATELLITE NAVIGATION



AvMap EGT probe

Thermocouple type K (Cr-Al) ungrounded

WARNING AND INSTALLATION MANUAL

1. Disclaimer & Warning

AvMap disclaims any liability deriving from an improper use or installation of the thermocouple sensor, in a way that may violate the flight and navigation rules, regulations and safety.

It is highly recommended that the installation of connection threads and thermocouple sensors on the engine will be performed by a qualified aviation maintenance technician. Consult the engine installation manual, your Rotax Maintenance Centre and/or aircraft manufacturer for a correct installation of the thermocouple sensor on the engine.

2. Introduction

AvMap EGT probes are thermocouple sensors meant to measure the exhaust gas temperature of the engine. AvMap EGT probes are compatible with AvMap EngiBOX, the engine monitoring system for carbureted Rotax aircraft engines.

3. Package content

1x AvMap EGT probe - Thermocouple type K (Cr-Al) ungrounded
1x M8x1 weld boss

4. Technical specifications

4.1 AvMap EGT Probe - Thermocouple type K (Cr-Al) ungrounded

- Thermocouple type: K (Cr -Al) composed of alloys containing nickel
- Sheath: Inconel 600 Ø 3 mm x 30 mm (Ø 0.12" x 1.18")
- Measuring junction type: Insulated hot junction in MgO
- Temperature range: -270°C / 1370°C (-454°F / 2498°F)
- Accuracy: According to DIN_IEC 584-2 class 2
- Connection thread: M8x1 screw-in type
- Cable length: 2,5 m insulated in silicon

4.2 M8x1 weld boss

- Connection thread: M8x1
- Diameter: Ø 15 mm (0.59")
- Cut-out diameter: Ø 12 mm (0.47")
- High: 11 mm (0.43")
- Material: stainless steel (INOX)

5. Installation

IMPORTANT: For a correct installation and temperature readings, consult the EngiBOX User & Installation manual, paragraph 2.2 Connections & Wiring, available at avionics.avmap.it.

IMPORTANT: First install the thermocouple sensor on the engine (STEP 1). After the thermocouple sensor is installed on the engine, proceed to connect the thermocouple sensor bare wires to the EngiBOX (STEP 2).

STEP 1: Installation on Rotax 2 stroke and 4 stroke carbureted engines

IMPORTANT: Grease the connection threads with Loctite ANTI-SEIZE type material to ensure trouble free removal and protect against rust, corrosion, seizing and galling.

The engine exhaust gas temperature is monitored by means of thermocouple sensors on the engines exhaust manifold.

Check if the connection thread M8x1 for attachment of the thermocouple sensor is already provided in the exhaust bend.

Case	Action
Connection thread M8x1 is provided in the exhaust bends	Connect the thermocouple sensor to the connection thread M8x1 of the desired exhaust bend by screwing it in and fasten it tight.
Connection thread M8x1 is NOT provided in the exhaust bends	Install the M8x1 weld boss, that is delivered in this package together with the thermocouple sensor, on the exhaust bend. Consult the Rotax installation manual and the aircraft manufacturer that installed the engine on the aircraft for identifying the correct position on the exhaust bend for exhaust gas temperature readings. After identifying the correct position make a 12mm (0.47") diameter hole in the exhaust bend and insert the M8x1 weld boss in the exhaust bend 12 mm (0.47") diameter hole and attach the M8x1 weld boss to the exhaust bend by welding it. Connect the thermocouple sensor to the M8x1 weld boss by screwing it in and fasten it tight.

NOTE: On Rotax 914 engine series the connection thread M8x1 for attachment of the thermocouple sensor are already provided in the 4 exhaust bends. On the other Rotax engine series the presence of exhaust manifold and connection threads may vary per engine and aircraft model.

STEP 2: Connection to the EngiBOX

The EngiBOX can connect to the thermocouple sensor in order to monitor the exhaust gas temperature of the engine.

The AvMap EGT probe comes with 2 bare wires:

1. Red wire = +/+
2. Green wire = -/-

Connect the red wire to the respective EngiBOX terminal input +/+ TEMP

Connect the green wire to the respective EngiBOX terminal input -/- TEMP

6. Limited Warranty

The manufacturer warrants each AvMap EGT probe to be free from defects in material and workmanship under normal use and service for a period of 12 months from original retail purchase. During the warranty period, the manufacturer will repair or replace any component which fails in normal use without charges for parts or labour.

To receive warranty service, contact your local authorized dealer for shipping instructions. This limited warranty does not extend to any AvMap EGT probe which has been subjected to misuse, neglect, accident, incorrect wiring or improper installation. The manufacturer reserves the right to repair or replace the AvMap EGT probe at its sole discretion.

This is the only warranty. The manufacturer expressly disclaims any and all other warranties, either expressed or implied, including warranties of suitability or fitness for a particular purpose. In no event will manufacturer be liable for consequential damages or loss of use. This warranty gives you specific legal rights which may vary from state to state.

NOTE: We will not be liable for errors contained herein, or for incidental or consequential damages in connection with the performance or use of this material.

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