FLYBOX®

Manifold Absolute Pressure
MAP1

Revision#1.3, 5/11/2014
For firmware version 2.3

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SECTIONS

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Thank you for purchasing a Flybox® product. We hope it fully satisfy you and makes your flights pleasant and secure.
Developing MAP1, our intent was to create a compact and lightweight manifold pressure indicator, easy to install and quick to consult.

SYMBOLS USED IN THE MANUAL

NOTE: Used to highlight important informations.

CAUTION: Used to warn the user and indicate a potentially hazardous situation or improper use of the product.

WARNING: Used to indicate a dangerous situation that can cause personal injury or death if the instruction is disregarded.

NOTE: Keep this manual in the aircraft.
This document must accompany the instrument in the event of change of ownership.

NOTE: This device is intended for installation onto non type certified aircraft only, because it has no aviation certifications. Refer to your local aviation authorities to check if this device may be installed in your aircraft.

CAUTION: Read entirely this manual before installing the instrument in your aircraft, and follow the installation and operating instructions described here.

CAUTION: Using this instrument over the maximum allowable ranges can cause malfunction or wrong indications.

CAUTION: Microel s.r.l. reserves the right to change or improve its products. Information in this document is subject to changes without notice.

SECTION 1

1.1 MECHANICAL INSTALLATION

1) The MAP1 fits in a standard 2 1/4” panel cutouts (57 mm).

2) it's recommended to choose a position that permits optimal display visibility.

CONNECT THE MANIFOLD PRESSURE LINE:

Connect the pipe fitting on the back of the instrument to the manifold pressure lines; the furnished pipe fitting is suitable for pipe with internal diameter of 5 mm.

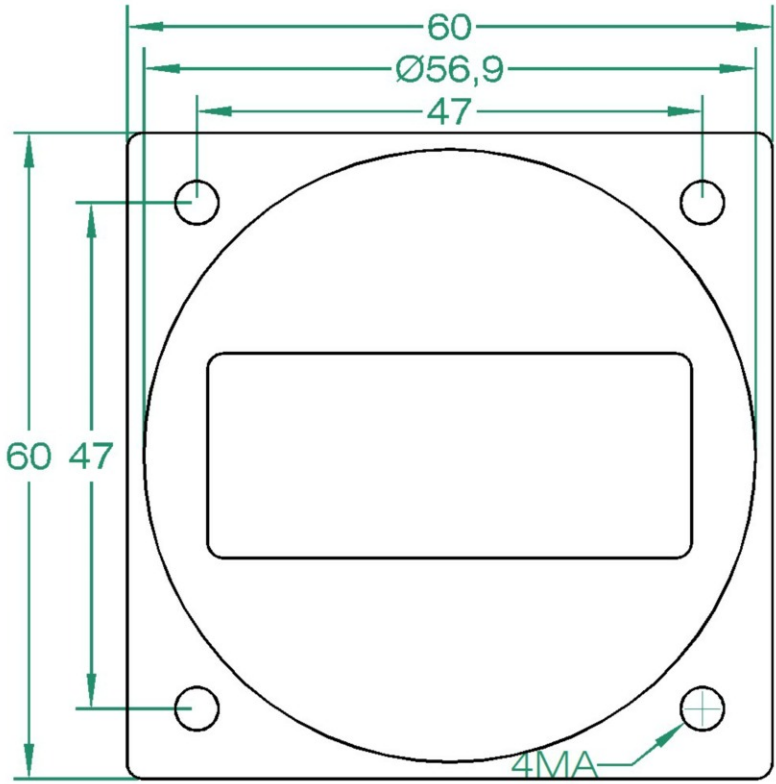
***WARNING*: Take care to properly execute this connection because an eventual leakage can cause fuel vapour to enter in the cockpit.**

- It's recommended to insert a restrictor valve to the pipe so that only little quantity of fuel vapour can exit in case of leakage.

- With the MAP1 connected the pressure line must never exceed the pressure of 250kPa/74 InHg to avoid damage to the instrument.

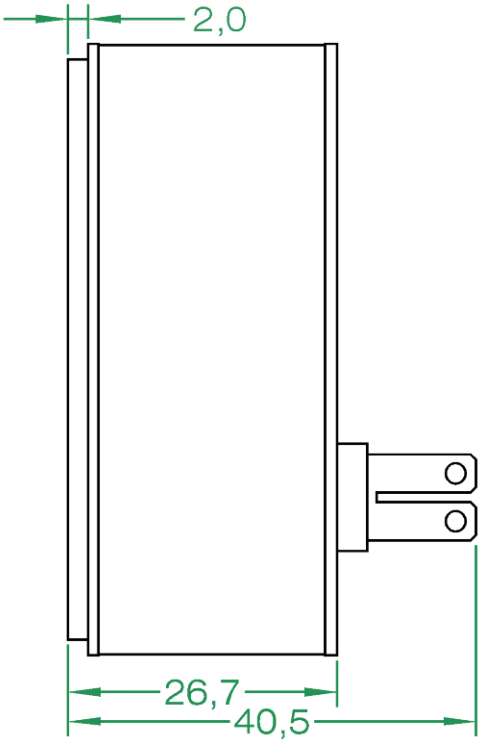
SECTION 2

2.1 DIMENSIONS



Front view

Dimensions in millimeters



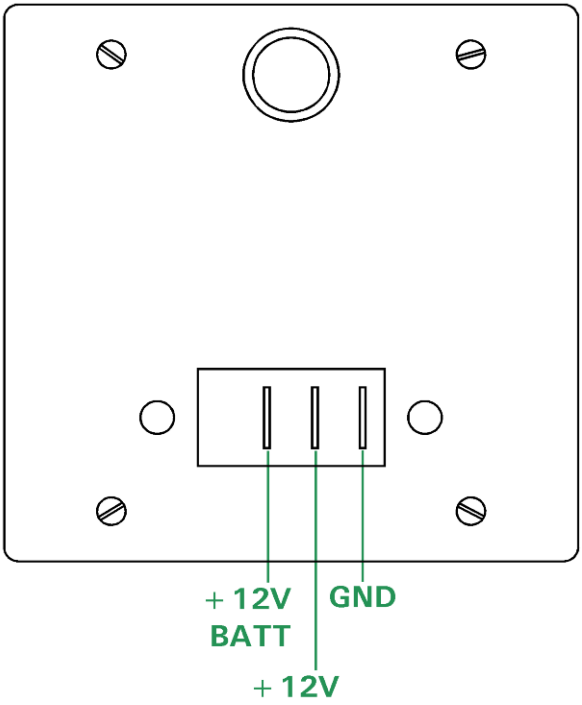
Side view

Dimensions in millimeters

SECTION 3

3.1 ELECTRICAL CONNECTIONS

On the backpanel of the MAP1 there's a four-pole connector, the connections are:



Connections details:

+12 BATT: power lead, can be connected to an auxiliary backup battery if present.

+12 V: power lead, connects to 12Volt main line.

GND: Ground lead.

NOTE: Insert a circuit breaker or fuse to the power lead. (**+12V**).

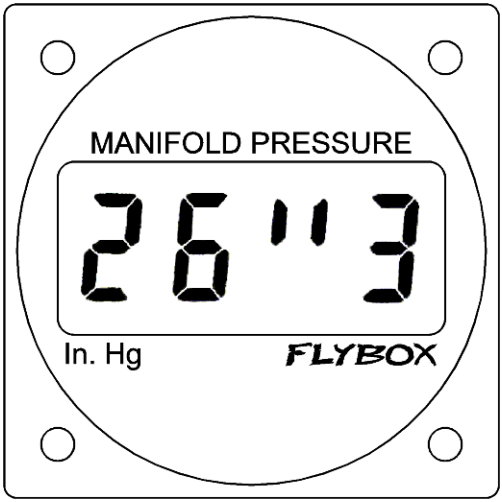
CAUTION: Voltage peaks on the supply line that exceeds the operating limits can damage the device.

SECTION 4

4.1 USE OF THE INSTRUMENT

MAP1 measure and display in a large LCD the absolute manifold pressure.

The measurement is executed by a solid-state sensor that assures a high accuracy and a resolution of 0.1 In.Hg.



The pressure is displayed in inches of mercury; the display update rate is 3 time per second, which guarantee a fast response time to pressure change.

SECTION 5

5.1 TECHNICAL SPECIFICATIONS

- **Standard mounting 2 1/4" (57mm).**
- **Anodized aluminium case.**
- **Dimensions:** 60 x 60 x 40.5 mm.
- **Weight:** 115 g.
- **Supply voltage:** 10~30 V=.
- **Supply current:** 20 mA.
- **Range:** 10~60 In.Hg.
- **Resolution:** 0.1 In.Hg.
- **Accuracy:** 1.5 %.
- **Operating temperature range:** -20~+70°C.
- **Humidity:** 10% ~ 90% without condensation.

WARRANTY:

This product is warranted to be free from defects for a period of 12 months from the user invoice date.

The warranty only covers manufacturer defects and shall not apply to a product that has been improperly installed, misused or incorrect maintenance, repaired or altered by non-qualified persons.

Date	Version	Description
07/2007	1.2	First release
10/2014	1.3	Layout update

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