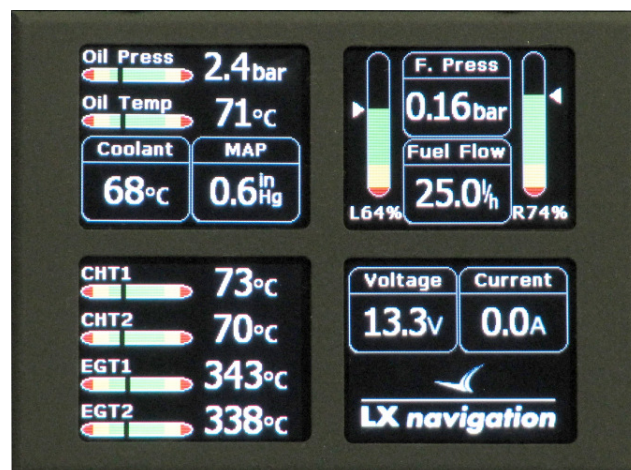
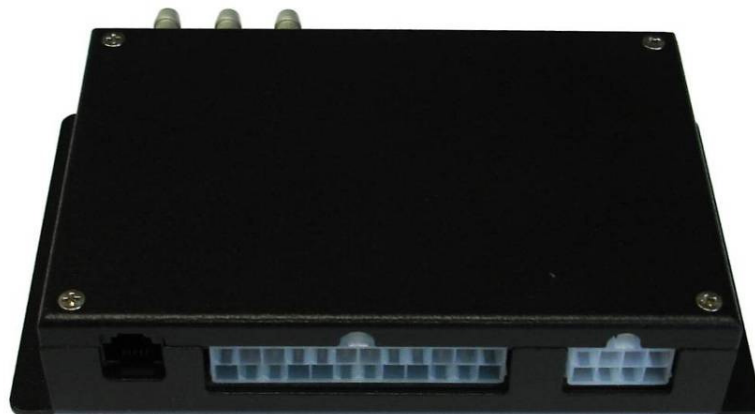


LX ENG

A high flexible modular engine monitoring system



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1 General

The system consists of **LX Engine Box** as a base unit. Many sensors, indicators or LX navigation devices may be connected as multifunctional display units.

2 LX Engine box

This is high flexible **stand alone microcontroller running** device which is offering a huge number of inputs, outputs and interface connections. Two pressure transducers makes possible to evaluate altitude and the airspeed. The **SD card** serves as transportable data storage media. Connection of LX Engine box to LX 485 system bus makes possible to connect several LX display units to the system. These create a very efficient and at the same time a cost effective solution. A GSM modem connection option makes possible to transfer engine data via GSM network to maintenance centre. Detailed information about LX Engine box features is listed below.



Sensors: 4 x EGT
2 x CHT
OIL TEMP
OIL PRESS
RPM
FUEL PRESS
2 x FUEL FLOW
2 x FUEL LEVEL
MANIFOLD PRESS
WATER TEMP
OAT
AIRBOX
CURRENT
VOLTAGE
4 x INPUT/OUTPUT PINS



Bus

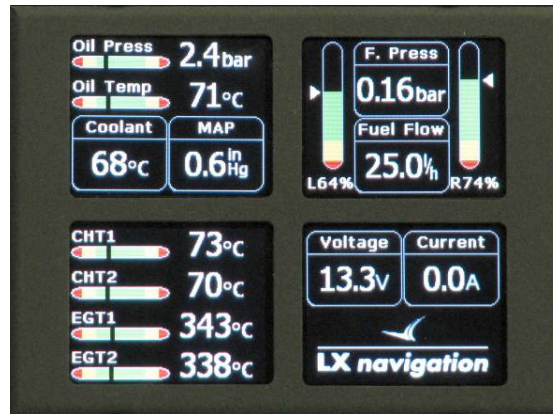
SD card

pressure

GSM modem connector

3 LX Cluster color display

The unit consists of four sunshine readable color graphic displays, which are used to display engine parameters. The unit is extremely small (100x75 mm) and needs only approximately 10 mm of installation depth.



Connection to LX ENG is realized via cable and one 9P Sub D connector. The unit gets all data from LX ENG box and its task is only to visualize engine parameters values.

4 LX 57 mm Indicators

LX navigation offers a wide range of modern 57 mm indicators which uses a mechanical needle driven by a stepper motor and a sunshine readable display to indicate flight parameters. All mentioned units are connected to LX engine box via LX system bus and therefore don't need pneumatic connections.

4.1 IAS indicator

This is a complex IAS indicator where **mechanical needle** shows speed in km/h, digitally is indicated IAS in kts and additionally in km/h.



There is no sensor build in the unit; the speed signal is available on LX Bus and also the power.

Additionally is displayed also **vario** signal, as a dot moving at the edge of the display

4.2 Altimeter

The unit is also LX system bus participant and receives data and power via bus. All altitude connected pilot data are displayed on the unit.



Altitude in km shows the needle and three further digital indicators shows **Flight level, QNH** and altitude **in ft.**

A rotary switch installed near the unit makes possible to input of QNH. QFE flying is also possible after selection of this mode.

4.3 Variometer

A variometer with needle and also with display which offers some flight time related data.



4.4 RPM meter

This is also bus connectable unit which receives data from LX ENG unit. The RPM and also engine total time are displayed.



Engine total time is stored in LX ENG box memory and also on SD card, due to safety reasons. The RPM meter doesn't store any data and could be therefore replaced at any time.

5 Gallery



LX Navigation demo panel



Complete panel equipped with LX Navigation instruments

30.12.2010

IV ENG



Copilot or instructor repeater of IAS and altimeter