

# LX Eng 80 Air Dat

A high end Engine monitoring system with Air Data 57 mm indicators

## 1 General description

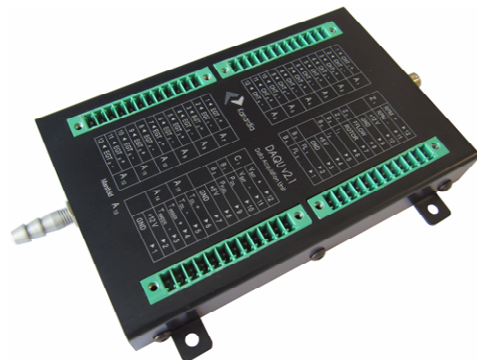
This configuration consists of DAQU engine box, one 80 mm air norm unit called EMSIS and 57 mm air norm indicators for IAS, Altitude, Variometer and RPM. EMSIS is in that case connected to DAQU box via HANU interface which converts data into acceptable format for 57 mm units.

## 2 System configuration

### 2.1 DAQU Box

DAQU box main function is data acquisition process of sensors analogue values. The unit comes in an aluminum case and this makes possible to be installed on the engine side of the fire wall. This makes installation works extremely easy, as all sensor cables ends close to the sensor positions. Only one data cable should pass the fire wall. Sensor capacity is as follows:

- 6x CHT
  - 6x EGT
  - RPM
  - rotor RPM
  - fuel flow
  - 2x fuel level
  - oil pressure
  - fuel pressure
  - pressure sensor for MAP is an integral part
  - 2x oil temperature
  - 2x coolant temperature
  - 2x battrey
- Size: 120x75 mm, weight 150 gr



### 2.2 EMSIS

EMSIS main function is presentation of engine data on a sunshine readable 2.8 inch colour display. The unit is directly connectable to DAQU box via CAN bus. For eventually data transfer an SD card slot is foreseen. Size: 80 mm air norm, installation depth 50mm weight 300 gr.



## 2.3 57 mm Indicators

In general more than four indicators could be connected to the bus, in that case some of them will be repeaters.

### 2.3.1 Altimeter

Display functions:

- Flight level indication
- QNH indicator
- Altitude in ft
- Weight: 215 gr

Adjustment of altitude respectively QNH is done by rotaty switch.



### 2.3.2 IAS indicator

The unit displays IAS in three different forms:

- AIS needle indicator with colour arcs
- IAS in km/h and kts on the display
- Vario indicator as a dot
- Weight: 215 gr



### 2.3.3 Vario indicator

The needle shows climb/sink rate. The scale is calibrated up to +- 10 m/s. Colour display is for display of Time and Flight time.

Weight: 215 gr



### 2.3.4 RPM indicator

The needle is used as RPM indicator, additionally is available also a digital reading and the totalizer.

Weight: 215 gr



### 2.4 HANU Box

Electronic main parts are two digital pressure transducers one for altitude and the another for the airspeed.

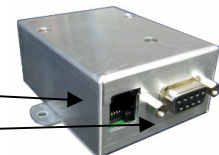
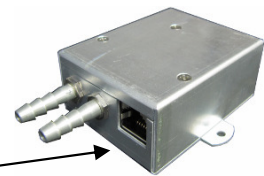
Both are calibrated and also temperature compensated which ensures safe and accurate operation form -20 until +65 deg. Celsius.

Additionally to the pressure inlets there are also three additionally plugs on the box

-8P plug to connect DAQU

-6P telephone type connector for rotary switch

-9P Sub D connector for power and connection of 57 mm indicators



### 3 System schematics

