DX1 Multi-function display unit
Specification Sheet

VR AVIONICS

Features

- Engine and/or Systems Monitor
- High-bright 3.5" LCD color display (320 x 240)
- Front or rear of panel mounting
- Four soft-keys for navigation via 2 toggle switches
- Front loading USB slot for removable USB disk
- Direct acquisition of measurements via:
  - one fuel flow type sensor
  - one pressure (4-20mA) sensor
  - one analog voltage (0-30V) input
  - two additional frequency / discreet inputs
- Communication via:
  - CAN bus interface
  - RS232 interface

Description

VRX multifunction displays such as the DX1 are generally used as dedicated cockpit engine monitors when combined with any of our engine data gathering capable units (EIU, TSLM, TSM).

The DX1 can directly read sensors for fuel flow, fuel pressure and more, usually to supplement TSM or TSLM parameters or as a standalone fuel flow indicator and computer.

VRX displays provide systems monitoring ability being able to integrate with other VR Avionics units such as our PDC or FSM. It also provides parameters to EFIS screens such as the ones from Advanced Flight Systems.

The DX1 is compact yet it presents the four primary engine gauges larger than most similar dedicated turbine engine monitors. It's small size and panel footprint enables it to consume very little space and makes it easy to plan for and fit into almost any instrument panel. DX1's can be stacked together side-by-side or employed apart in tandem-type (front-rear) cockpits.

From the outset our thoughts were to make it easy and inexpensive to obtain redundant engine monitoring. Redundancy have become a concern of late as previously separate gauges are being integrated into single monitors – one failure can leave you nothing to fly with. Our VRX MFD's and related (EIU, TSLM, TSM) units allow the user various options to get scalable redundancy for peace of mind.

The DX1 has a high-bright 3.5" color LCD for the presentation of instrumentation and also two toggle switches realizing four soft-key selections for quick navigation through pages and menus. It is further equipped with a USB slot that allows a removable USB disk to be inserted for easy firmware updates, data logging and retrieval.

Pin-outs (male 15-pin d-sub)

PINS	DIR	for M601	DESCRIPTION
1	IN	POWER	AIRCRAFT POWER
9	GND	GROUND	AIRCRAFT GROUND
15	OUT	+10V OUT	POWER OUTPUT FOR EXTERNAL SENSOR (FUEL FLOW)
14	IN	F-IN	FREQUENCY / TOTALIZING INPUT (FUEL FLOW)
6	IN	P-IN	PRESSURE SENSOR (4-20mA TRANSDUCER)
2	IN	A-IN	ANALOG VOLTAGE INPUT (0-30 VDC)
7	IN	F/D-IN1	FREQUENCY / DISCREET INPUT #1
8	IN	F/D-IN2	FREQUENCY / DISCREET INPUT #2
3	IN	RX-232	RS-232 RECEIVE / INPUT
10	OUT	TX-232	RS-232 TRANSMIT / OUTPUT
4,11	I/O	CAN-H	CAN HIGH LINE OF CAN BUS
5,12	I/O	CAN-L	CAN LOW LINE OF CANBUS
13	I/O	CAN-T	CAN TERMINATION LINE OF CAN BUS

Maximum Ratings

1	POWER SUPPLY VOLTAGE RANGE	7 ... 32 VDC
2	STORAGE TEMPERTURE	-40 TO +90 ºC
3	OPERATING TEMPERTURE	-30 TO +85 ºC

General Specifications

4	DIMENSIONS	80.5 x 80.5 x 26 mm
5	WEIGHT	170 g

Electrical Characteristics

6	POWER CONSUMPTION (@ 28V)	50mA (typical)
7	POWER CONSUMPTION (@ 14V)	130mA (typical)

Unit Outline
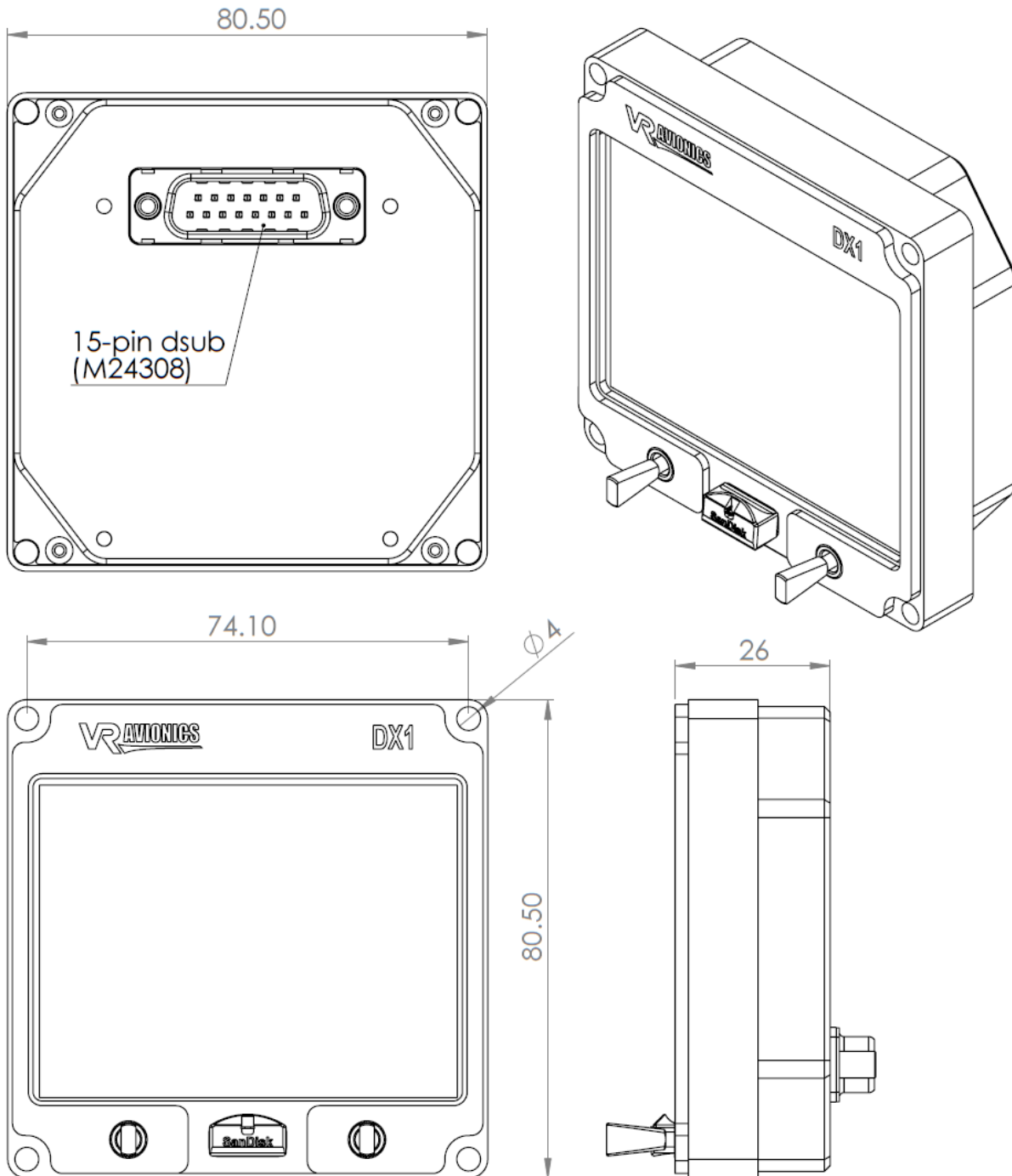
1. 3D CAD models are available in Solidworks and IGES file formats. Also available are cutout DXF files for both front-of-panel and rear-of-panel mounting. These files can be downloaded from the VR Avionics website.