

Introduction

A Micro Analog 2 system comprises a chassis, a backplane and a set of printed circuit card modules (PCBs) which plug into the backplane through the front opening in the chassis. The rear panel carries all system connectors (power, input, output, USB.)

More details of the Micro Analog 2 system can be found on the Fylde web site <http://www.fylde.com>.

This FE-359-USB module provides 16 analogue input channels together with USB data acquisition for the FE-MM16 system.

In the FE-MM16 system, signal conditioning is connected to the data acquisition providing an integrated system for a variety of transducer types.

USB Interface Module : Specification

Analog Inputs	Quantity Operating Range	16 signals from eight dual channel transducer interface modules. ±10.24 V relative to Analog 0 V. Note that these inputs signals remain available as system analog outputs on the 15 way D connectors at the rear of the FE-MM16. When a slot is not fitted with signal conditioning modules, ±10V signals may be acquired directly from the 15 way D connector.
Digital Outputs	Quantity Level	4 signals. +5 V push pull
Digital Inputs	Quantity Level	4 signals. On > 3.3 V, Off < 0.7 V
A to D Conversion	Resolution Range Sampling Rate Offset Noise Crosstalk Absolute Gain Error	16 bits ±10 V Maximum 16 x 25 000 samples per second. or 8 channels at 50 000 samples per second. < ±5 mV < 2 mV pk-pk -95 dB at 50 kS/s with 5k Hz sine wave input < 0.1%
Environment	Temp. Range	-40°C to +85°C operating. System startup to be at -15 °C or above. The module is conformally coated to avoid condensation effects.
Electrical	Power dissipation	0.75 W
Standards	USB EMC Safety	Universal Serial Bus Specification Revision 1.1 The complete system complies with the requirements of the EMC directive 89/336/EEC ; the applicable standard is EN 61326. The completed system complies with the protective requirements of Low Voltage Directive 73/23/EEC and Amending Directive 93/68/EEC ; the applicable harmonised standard is EN 61010-1 (Industrial Equipment).

Host Device Driver Software.

Host Device Driver Software is compatible with the Microsoft Windows XP or later operating systems. The supplied driver is the FTDI D2XX driver (see: <http://ftdichip.com/drivers/d2xx.htm> for full details of compatibility with operating systems.

Host Application Software.

Fylde MADAQ software (see separate data sheet) is supplied free of charge with each USB system.