

AS-1250FE

DYNAMIC SIGNAL ACQUISITION FRONT END

BENEFITS

- Brings powerful acquisition capability close to machinery
- Industrial design for field mounting
- Reduced analog wiring
- Flexible channel and phase marker configurations
- Fiber optic connectivity option maintains signal integrity
- Compatible with Alta Solutions software



The AS-1250FE is a high performance, compact and flexible data acquisition hardware platform used by Alta Solutions' powerful machinery monitoring and analysis products.

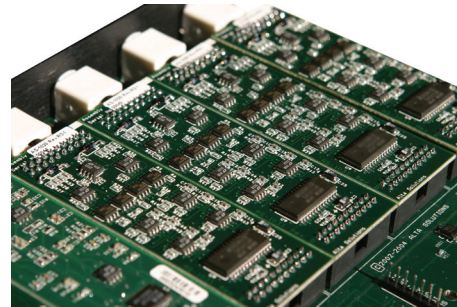
This unit can simultaneously capture up to 40 dynamic signals using highly accurate 24-bit analog to digital converters. The AS-1250FE can be configured to have multiple phase marker inputs to tackle most multi-speed applications such as split-shaft machiners or gearboxes. These phase marker inputs provide both position and speed.

Specifically designed for industrial applications, this rugged unit can be mounted close to the machinery skid; minimizing sensor wiring, reducing ground loops, cable attenuation and cross talk. Both DIN rail and bulkhead mounting are available options.

The AS-1250FE communicates to the analysis PC via a standard 10/100Mb Ethernet connection (RJ45). The hardware can be configured with an optional fiber optic Ethernet port that allows long distance transmission of data up to 2 km (1.2 miles).

This unit supports a wide range of industrial sensors, including accelerometers, displacement (proximity) probes and pressure transducers. Each channel incorporates anti-aliasing, overload protection and configurable coupling (AC, DC or IEPE).

STATE OF THE ART HARDWARE



2 to 40 Analog Inputs, 2 to 8 Phase Markers, 24-bit A/D Resolution, Simultaneous Sampling, Voltage Range (+20V to -20V), Coupling (AC, DC, and IEPE), Over-Voltage Protection

WIDE RANGE OF SENSORS



Eddy Current Probes, Accelerometers, Microphones
Pressure Transducers, Force Hammers, and Velocimeters

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ANALOG INPUTS

Number of Analog Inputs:	2 to 40 in increments of 2
A/D Resolution:	24 Bits
Sampling:	All inputs simultaneous
Dynamic Range:	110 dB (typical)
Signal-to-Noise Ratio:	110 dB (typical)
Input Voltage:	-20 V to +20 V
Input Impedance:	100 KOhm
Frequency Range:	DC to 20 kHz
Amplitude Error:	<1%
Phase Accuracy:	± 1° between channels
Connector Type:	BNC (SIG, COM) or Terminal strip (SHLD, SIG, COM)
Input Circuit:	Single ended / floating ground
Programmable Coupling:	AC, DC, and IEPE
IEPE Power:	3.5 mA, 22 VDC
Over-Voltage Detection:	LED indication per channel

PHASEMARKER INPUTS

Number of Tachometers:	0, 2, 4, 6, 8 (factory configured)
Speed Range:	24 to 1,000,000 RPM
Minimum Pulse Width:	1 microsecond
Trigger Threshold:	-20 V to +20 V
Trigger Slope:	Rising and Falling
Pulses Per Revolution:	0.01 to 10,000
RPM Error:	<1%
Input Impedance:	100 KOhm
Connector Type:	Terminal strip (SHLD, SIG, COM)
Programmable Coupling:	AC and DC

PHYSICAL ATTRIBUTES

Size:	Width:	205 mm (8.05")
	Depth:	181 mm (7.16")
	Height:	
	1 stack	51 mm (2.0")
	2 stack	94 mm (3.7")
	3 stack	137 mm (5.4")
	4 stack	180 mm (7.1")
Weight:		1 kg (2.2 lbs)
Operating:	Temperature:	0 °C to 60 °C
	Relative Humidity:	10 to 85%
Storage:	Temperature:	-55 °C to 85 °C
Vibration (sine wave):		5 G (5 - 500 Hz)

POWER INPUT

Supply Voltage:	10 Vdc to 24Vdc
Power Demand:	30 W Maximum
Over Voltage Protection:	up to 50 Vdc
Power Inlet:	3-Circuit Pluggable Terminal Strip (+, -, Earth)

COMMUNICATION

Protocol:	Ethernet 10/100Mbit Full Duplex
Connector Type:	RJ45 (CAT 5/6 cable) or Fiber Optic LC receptacle (62.5/125um multimode fiber)



Alta Solutions

Innovative Signal Processing Solutions

Alta Solutions Incorporated

10915 Technology Place, CA 92127 USA

Toll-Free Phone: (877) 258-2765

Email: sales@altasol.com, Web Site: www.altasol.com