

# **Adash A4400 - Technical Specification**

## **Inputs**

### **Dynamic Channels (AC)**

Number of synchronous parallel channels (AC):	4 AC
Frequency range:	max 76800 Hz (196 kHz sampling frequency)
Input range:	+/- 12V (only one range, no gains)
Measurement timing:	fully synchronous
A/D Resolution:	24 bit input, 64 bit double floating point internal precision (no gain procedures used !)
Dynamic range:	120 dB
Channel configuration:	voltage or ICP (individually for every channel)
Input protection:	up to 30 V
Input impedance:	100 kOhm
Input type:	acceleration, velocity, displacement, any non-vibration AC voltage
Integration:	single, double fully digital integration
2D Processing:	axis rotation according sensor mounting
Accuracy:	< 0.5 %
ICP drive:	18 V, 3.8 mA
High pass filter:	1Hz -12800 Hz (user definition)
Low pass filter:	25Hz -76800 Hz (user definition)
Connector:	Binder 712 series

### **Tacho Channel**

Number:	1 independent tacho input
Speed range:	0,8 Hz - 1000 Hz
Input impedance:	80 kOhm
Input type:	voltage
Input range:	+ 10V (only one range, no gains) +/-30V (tacho signal + DC) with optional tacho signal converter
Accuracy:	<0.5 %
Trigger level:	0.1 -9.9 V, user defined
Input protection:	up to 48 V
Connector:	Binder 712 series

### **Static Channels (DC or 4-20mA)**

Number:	4 DC or 4-20mA (has to be specified in order)
Input range:	+/- 24 V or 4-20mA
Input impedance:	100kOhm (VDC), 250 Ohm (4-20mADC)
A/D Resolution:	12 bit input
Accuracy:	0.1% fsd
Input protection:	up to 30 V

## Measurement Functions

Data Analysis Speed:	0.25 sec for 25600 lines FFT spectrum
Amplitude Units:	Metric, Imperial (English) or user programmable
Frequency Units:	Hz, CPS, RPM, CPM, Orders
Amplitude scale:	Acceleration, Velocity, Displacement, User defined
Scaling:	Linear or Log, both X and Y axes
Cursor:	Single (optional Harmonic, Sideband)
Triggering:	free run tacho amplitude (positive or negative) external (voltage)
Signal Range:	full, No Auto ranging
Data acquisition:	TRUE RMS, TRUE PEAK, TRUE PEAK-PEAK overall or band values user defined high and low pass filters for band measurement time waveforms (65 536 samples max) real-time FFT 3D graphs ( waterfall, cascade) order analysis Amplitude + phase values on speed frequency speed measurement process static DC or 4-20mA values Envelope demodulation ACMT procedure for low speed machines bearings
Time waveform samples:	256 - 65536
Waveform length:	max 1024sec
Spectrum ranges:	25 - 76800 Hz
Spectrum lines:	100 - 25600
Spectrum Peaks listing:	yes
Spectrum units:	RMS, 0-P and P-P
Windows:	Rectangular, Hanning, Exponential, Transient
Order analysis parameters:	1/2 - 10th order
Averaging:	1-255
Overlap:	yes
Smax, Gap and Centerline displays for proximity sensors:	yes

## Recording:

Sampling frequency:	user defined in range 64kHz - 196 kHz
Record length example:	3 GB for 1 hour record with 64kHz sampling (4ch AC+4ch DC+1ch tacho signal) ( 160GB memory enables over 50 hours of full 64kHz recording)

## Balancing:

Planes:	1 or 2
Balancing Advisor for automatic fault detection:	yes
Balancing Quality factor according ISO1940:	yes
Balancing vector graph for balancing process reporting:	yes
Balancing Report:	yes
Trim function:	yes
Vector split (e.g. to blades positions):	yes
Manual entry:	yes
Intuitive graphic user interface:	yes
Trial mass:	get out or leave in

**General:**

Processor:	Atom 1.6 GHz
RAM:	1 GB
Display:	LCD colour 174 x 127 mm (8.5" diagonal), 800x600 resolution
Memory (Internal SSD):	160 GB
Interface:	USB
Powering:	Li-Ion long life battery pack (more then 5 hours of measurement)
Operating temperature:	-10 °C - +50 °C, 15°F-120°F
EMC:	CE tested
Dimensions:	280 x 205 x 55 mm
Weight:	2.5 kg