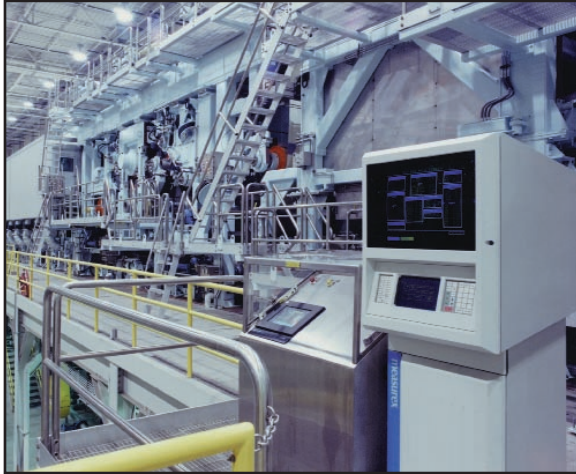


# LanSHARC™

## SMART DIGITAL CONTROLLER

### Model SDC003

LanSHARC™



#### BENEFITS:

- Integral ICP® Sensor Power
- Affordable Digital Signal Processor
- 24 Bit Delta Sigma Analog to Digital Converter
- 20 Hz to 5 or 40 kHz Real-Time Bandwidth Across 4 Channels
- Integral IEEE P1451.4 TEDS Support



The LanSHARC™ Smart Digital Controller has been developed as a highly programmable and configurable platform for advanced machine process vibration applications development and deployment. It is designed for applications that protect critical process machinery and systems from either failure or degradation. As such, it combines the latest in analog to digital conversion and digital signal processing technology with ample memory and communications resources.

The LanSHARC™ package supports two different development environments: Monitor DLL API Library and LanSHARC™ Developer Kit. The standard package includes a complete DLL API library that allows the user to easily interface with the LanSHARC™ from any C or Visual Basic program. This interface will enable the user to generate stand-alone application software or to integrate the LanSHARC™ into a complete monitoring system.

The developer kit allows advanced users to develop proprietary algorithms programmed within firmware for their own use. This kit includes sample firmware source code and a firmware programmer's guide. Combined with user supplied Analog Devices' VisualDSP++™ for SHARC® and ADDS-SUMMIT-ICE, the developer can load these custom algorithms into their LanSHARC™ unit.

Provide your users with the information needed - anytime - anywhere - by simply integrating the LanSHARC™ into your on-line monitoring system using RS-232 or Ethernet!

**"YOUR ONE STOP SOUND AND VIBRATION SHOP"**



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## HARDWARE SPECIFICATIONS\*

### Inputs:

Dynamic Channels	1-4, Vibration or Acoustic Channels, TEDS capable
Static Channels	0-4 Channels, 12 Bit, 0 - 5 volt
Digital	1 Tachometer, 1 Static Digital

### Dynamic Inputs:

Ranges:	±2.5 V
ICP® Interface:	5 ± 1 mA IEEE P 1451.4 support.
Coupling:	AC -3 dB @ 20 Hz
Maximum Frequency Range	5 kHz or 40 kHz
Channel Crosstalk:	< -90 dB
Amplitude Accuracy:	< 3%
Amplitude Match:	< 1%
Phase Match:	5°
Harmonic Distortion:	-70 dB
Dynamic Range:	110 dB Typical

### Static Input:

Voltage Range:	0 to +5V <sub>pk</sub>
Input Impedance:	>100 kΩ
Maximum Frequency:	5 Hz
Coupling:	DC

### Digital Input:

Voltage Range:	Approx 2V @ 10-50 mA
Polarity:	Any
Drive Current:	(10-50) mA
Isolation:	600V

### Digital Signal Processing:

Primary ADC:	24-bit Delta Sigma
Maximum Sampling Rate:	128 kHz
Block Length:	Application Dependent
Overall Units:	Application Dependent
DSP:	32-bit Floating Point DSP Processor
Memory:	16 Mb SDRAM and 8 Mb Flash
Microcontroller:	8-bit 8051 core Microcontroller

### Output:

Status:	LED's indicate target machine status (3 green, 1 red)
Relay:	Solid State, optically isolated 100 volts @ 120 mA (4)
Analog output:	2 Channels, 4-20 mA

### Mechanical:

Protection:	NEMA 4
Enclosure:	2X4X7 inches aluminum
Power:	24 VDC, ≤150mA
Environment:	Non-incendive Environment with Temperature Varying from 32° to 122° F (0° to 50° C) and 95% Non-condensing Humidity.

### Communication:

Host Computer:	RS-232
Network:	Ethernet - TCP/IP



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