

# Structural Monitoring System (SMS)

General Purpose Structural Monitor and Machine Protection System



### SYSTEM DESCRIPTION

4-20ma Structural Monitoring System with Data Collection, Alarming, Historical Trending and Data Storage. Accepts all sensors and signal sources using 4-20ma current loop.

### FEATURES

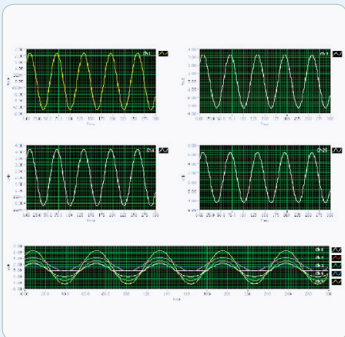
- 32-256 Channels Real Time - High Sampling Rate
- 8-16 Digital Outputs for Alarms
- 8-16 Digital Inputs
- Ethernet Output for Networks and Control Systems
- Inputs - 4-20ma or Voltage, 2-wire, 3-wire
- Configurable Software Package for Monitoring, Alarming and Historical Trending
- Battery Backup

### SMS SOFTWARE

SMS Software is configurable for Data Alarming and Trending Analysis. It is capable of sending alarm reports remotely via e-mail, with the Ethernet system fully integrated into control systems.

### TRIGGER INPUT

Can be triggered by AE System alarm. Trigger causes data storage at high speed with programmable pretrigger.



### OPERATING SPECIFICATIONS

#### Analog Inputs

Input Channels .....64 / 128 / 256  
 Input Configuration ..... Current or Voltage,  
 ..... factory set in groups of 8  
 Current Input Ranges ..... 20mA full scale  
 ..... (for use with 4-20mA current loops)  
 Voltage Input Ranges..... ±10V, ±5V, ±1V, software selectable  
 Current Input Impedance ..... 250 Ω  
 Voltage Input Impedance ..... 1 MΩ  
 Maximum Safe Current Input Level ..... ± 40mA  
 Maximum Safe Voltage Input Level ..... ± 12V

#### Digital Inputs

Input Channels ..... 8 / 16  
 Logic Threshold, High Level ..... > 2.0V  
 Logic Threshold, Low Level..... < 0.8V  
 Maximum Safe Input Level ..... -0.5 to +5.5V  
 ..... ESD protected to 15kV

#### Measurement

Maximum Sample Rate .....1000 samples per second,  
 ..... all channels active  
 Resolution .....16 bits

#### Physical & Environmental

Size .....19" Rackmount 4U / 30" x 20" x 10" NEMA 4  
 Weight ..... 20 lbs / 45 lbs  
 Operating Temperature ..... -25°C to +50°C  
 Storage Temperature..... -40°C to +80°C  
 Relative Humidity .....20 to 90%, non-condensing, Operating  
 ..... 10 to 95%, non-condensing, Storage  
 Input Voltage ..... 88-264VAC, 47-63Hz  
 Power Consumption .....200W/400W Max.  
 Output Power for Sensors ..... +24V  
 Maximum Total load ..... 2A per 64ch

#### Certifications



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