

# STATIONARY DATA ACQUISITION SYSTEM

## ST300 DatAQ – FB

The ST300 DatAQ - FB Series is a family of versatile data acquisition instruments that offer 16-bit, 100 kHz data sampling capability. They communicate through the PC's Universal Serial Bus (USB) port. Each model is capable of handling a variety of sensor types, including the ST703 series accelerometers, ST303 series laser sensors and LVDT's. Also available from Sequence Technologies is our unique line of data acquisition software packages:

- **ST310 BearingVIEW** – turret bearing monitoring software (laser based)
- **ST311 LaserVIEW** – waveform recording software for laser sensors
- **ST312 MultiDAQ** – machine monitoring software for accelerometers and other sensors.

Custom Windows compatible application software is also available upon request. Typical uses of this system include:

- *Turret Bearing Wear Analysis*
- *Predictive Maintenance Analysis*
- *Process Monitoring*

## KEY FEATURES

- Customized channels (32, 16, 8 & 4)
- High resolution capability
- Send all digital data over 300 feet using only one Ethernet cable to the PC
- Industry compatible (LabView, others)
- 500V isolation provides low noise measurements
- NEMA 4X stainless steel cabinet

## SPECIFICATIONS

| Performance              | Units     | FB                     |
|--------------------------|-----------|------------------------|
| Input Resolution         | Bits      | 16                     |
| Sample Rate              | kS/s      | 100                    |
| Channels                 | Qty (max) | 32                     |
| Isolation                | V         | 500                    |
| <b>Electrical</b>        |           |                        |
| Analog Inputs            | V         | ±10                    |
| Sensor Supply            | V         | 24 & ±12               |
| Supply Power             | VAC       | 120                    |
| Optional Battery Powered | VDC       | 24                     |
| <b>Mechanical</b>        |           |                        |
| Dimensions               | in        | 24 x 24 x 8            |
| Weight                   | lbs       | 15                     |
| Case Seal                | Type      | NEMA 4X                |
| Operating Temperature    | °C        | -5 to 70               |
| Sensor connectors        | Type      | 4, 6 & 8 pin (M12)     |
| I/O Connector            | Type      | USB or Ethernet (RJ45) |

ST300 FB/32 model



NEMA 4X cabinet provides protection of internal circuitry in harsh mill conditions. Connectors are mounted to the bottom of the cabinet.

Sequence Technologies designs and manufactures all of its circuitry in the ST300 series systems. This allows us to customize each system to your application.



## HARDWARE ACCESSORIES

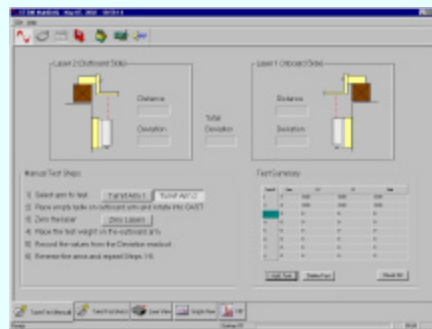


ST303 OptiGAGE  
Laser displacement sensor  
with bracket



ST703 series  
Accelerometer  
sensors

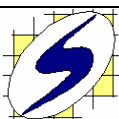
**SOFTWARE OPTIONS : ST310 BearingVIEW** – bearing analysis software is an interactive program designed to measure, capture and display bearing deflection measurements from the ST303 OptiGAGE laser sensors.



Additional software includes the ST311 LaserVIEW and ST312 MultiDAQ; both are Windows ready data acquisition programs capable of monitoring your most vital data. Compatible with LabView, others.

## BENEFITS

- ◆ Enable in-house data collection
- ◆ Obtain accurate real-time data
- ◆ Facilitate ISO certification
- ◆ Eliminate down time



# PRODUCT SPECIFICATIONS

## STATIONARY Design (FB)

| ITEM   | PART No. | Name                    | Description             | Qty | COST   |
|--|----------|-------------------------|-------------------------|-----|--|
| <b>Component Hardware Pricing (ST300-FB)</b> |          |                         |                         |     |  |
| 1  | MOD4     | Data acquisition module | 4 ch data module        | 1   | Please call for current pricing and availability |
| 2  | CNB4     | Connector board         | 4 ch connector board    | 1   |  |
| 3  | CON      | Connector terminal      | 4, 6 or 8 pin connector | 1   |  |
| 4  | CRB      | Carrier board           | 16 ch main board        | 1   |  |
| 5  | DAB      | Data acquisition board  | 16 ch A/D board         | 1   |  |
| 6  | USB      | Universal serial bus    | Hub & extender          | 1   |  |
| 7  | FB       | Enclosure               | Field Junction box      | 1   |  |
|  |          |                         | - NEMA 4X design        |     |  |
|  |          |                         | - Custom sizes          |     |  |

### ORDERING INFORMATION

ST300- X X / X- X

ENCLOSURE STYLE  
FB= Field Junction Box

CONNECTOR LAYOUT  
S= Screw connectors  
T= Terminal connectors

USB Option  
Blank= No USB  
U= USB option

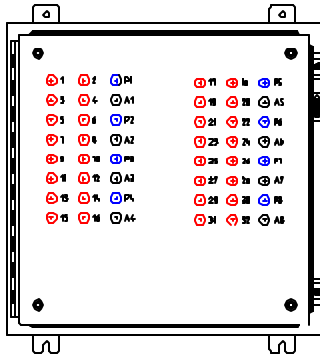
CHANNELS  
4= 4ch  
8= 8  
16= 16  
24= 24  
32= 32

**EXAMPLE ORDER:** ST300-FBS/32-U

32 channel stationary system with screw connectors consists of the following hardware components:  
MOD4 (x8), CNB4 (x8), CON (x48), CRB (x2), DAB (x2), USBE (x1), FB (x1)

### CONNECTOR LAYOUT

#### Screw Connector Mounting



Screw connector design:

Sensor cables plug into the cable connectors mounted directly on the front of the cabinet door.

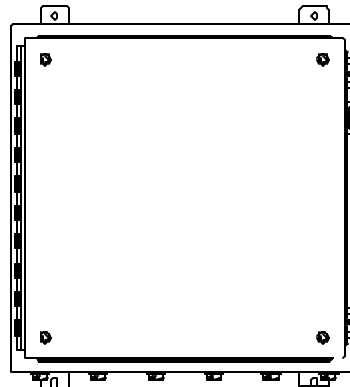
Enclosure size (L x W x D):  
13 x 18 x 6in

| Channel | Pin(s) | Compatibility                             |
|---------|--------|---|
| 1-32    | 6      | Single & biaxial accelerometers & voltage |
| P1-P8   | 4      | Triaxial PZT accelerometer                |
| A1-A8   | 8      | Triaxial or Quad axis CAP accelerometer   |

**NOTE:** Each 4 channel data module (MOD4) is capable of monitoring (either/or):

- 4 single axis accelerometers
- 2 biaxial accelerometers
- 4 voltage inputs
- 1 triaxial PZT accelerometer
- 1 triaxial CAP accelerometer

#### Terminal Connector Mounting



Terminal connector design:

Sensor cables plug into the bottom mounted cable connectors. The connectors are hardwired into terminal connectors on the data modules mounted inside the cabinet.

Enclosure size (L x W x D):  
24 x 24 x 8in

| Channel | Pin(s)    | Compatibility                          |
|---------|-----------|--|
| 1-32    | 4, 6 or 8 | Configured per customer specifications |

**NOTE:** Each 4 channel data module (MOD4) is capable of monitoring (either/or):

- 4 single axis accelerometers
- 2 biaxial accelerometers
- 4 voltage inputs
- 1 triaxial PZT accelerometer
- 1 triaxial CAP accelerometer

