

STRAIN DAQ

8-CHANNEL STRAIN DATA ACQUISITION SYSTEM

Precision strain measurement.

Engineered for serious testing.

Standalone 7-inch touchscreen operation with configurable gauge factor, real-time acquisition and live trend visualization for all eight channels.



8

CHANNELS

7 inch

TOUCHSCREEN

24-bit

RESOLUTION

1000 SPS

MAX SAMPLING

GAUGE FACTOR SETTING • LIVE 8-CHANNEL TRENDS • BRIDGE CONFIGURATION • DATA LOGGING

One platform.

Eight precision channels.

Operate directly from the integrated 7-inch touchscreen, configure each strain channel and monitor all channels in real time.



7-INCH TOUCHSCREEN OPERATION

01

Gauge factor

User-settable gauge factor for strain conversion and sensor configuration.

02

Live 8-ch trends

Simultaneous live trend visualization for all eight measurement channels.

03

Bridge setup

Quarter, half and full bridge selection with channel-wise configuration.

04

Sampling control

Selectable 5, 10, 50, 100, 500 and 1000 SPS acquisition rates.

TOUCHSCREEN + SOFTWARE

Configure. Monitor. Record.

GF

Set gauge factor per channel

ZERO

Zero / balance and shunt calibration

TREND

Live trends for all 8 channels

LOG

Continuous logging and CSV export

Technical capability

Eight dedicated strain measurement channels with local touchscreen operation and configurable measurement parameters.

CHANNELS

8 strain measurement channels

OPERATION

Integrated 7-inch touchscreen

GAUGE FACTOR

User configurable per channel

LIVE TREND

Simultaneous display of all 8 channels

BRIDGE

Quarter / Half / Full Bridge

RESOLUTION

24-bit ADC

EXCITATION

2.5 VDC precision excitation

SAMPLING

5 / 10 / 50 / 100 / 500 / 1000 SPS

SIGNAL

Microvolt to millivolt bridge signals

ACCURACY

Target $\pm 0.05\%$ FS or better*

CALIBRATION

Zero / balance + shunt calibration

DIAGNOSTICS

Channel, wiring and excitation checks

INTERFACE

Touchscreen + USB / PC connectivity

LOGGING

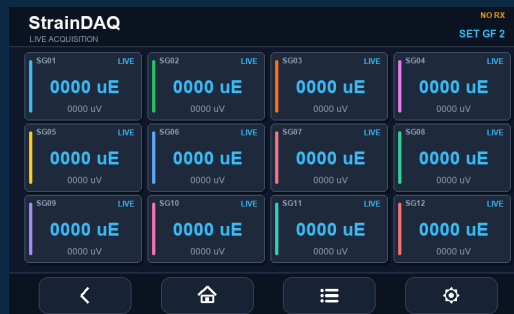
Continuous acquisition + CSV export

* Final performance depends on selected configuration, sensor installation and calibration.

7-inch touchscreen operation

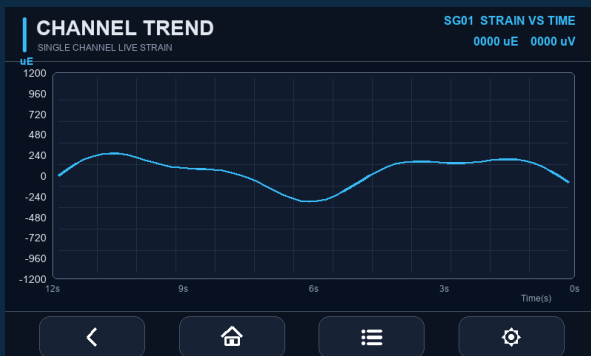
Live acquisition and strain visualization

Standalone operation with live channel values, single-channel analysis and synchronized multi-channel trends.



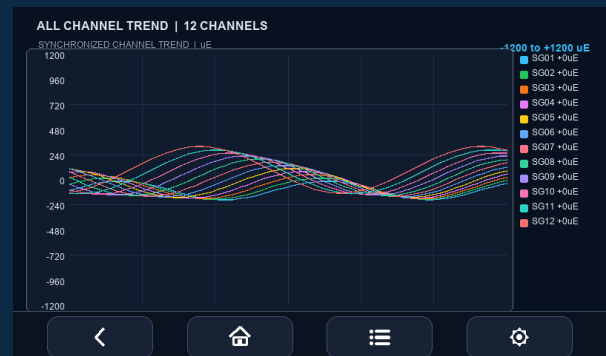
LIVE CHANNEL DASHBOARD

At-a-glance strain values for connected measurement channels.



SINGLE-CHANNEL TREND

Detailed strain vs. time view.



MULTI-CHANNEL TREND

Synchronized live comparison.

LIVE

Real-time acquisition

TREND

Single + multi channel

TOUCH

7-inch operation

VIEW

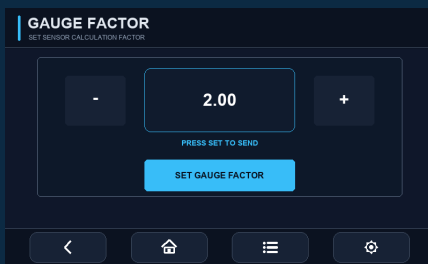
Engineering-ready display

LIVE VALUES • SINGLE-CHANNEL TREND • MULTI-CHANNEL TREND • TOUCHSCREEN CONTROL

On-device configuration

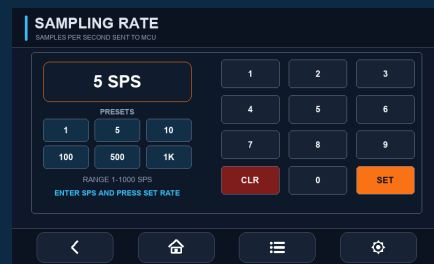
Set up, tare, log and manage each test

Key measurement and service functions are accessible directly from the touchscreen interface.



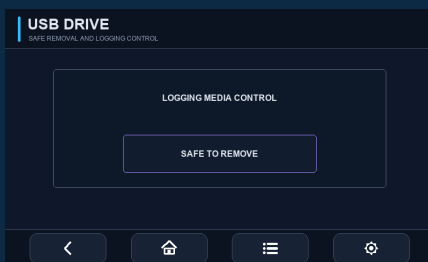
GAUGE FACTOR

Set sensor calculation factor.



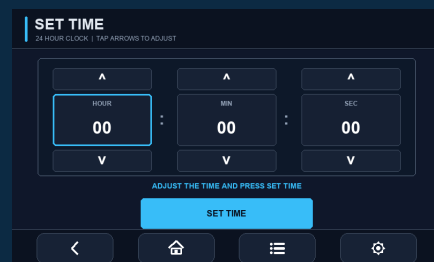
SAMPLING RATE

Select acquisition rate.



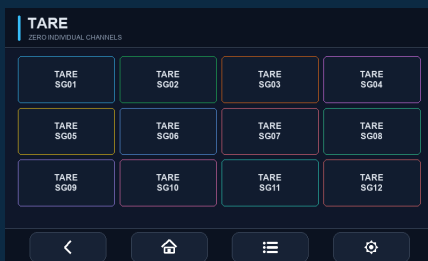
USB FLASH-DRIVE LOGGING

Manage logging media safely.



RTC / SET TIME

Timestamp recorded test data.



INDIVIDUAL TARE

Zero individual channels.



CHANNEL STATUS

Enable or disable inputs.

GAUGE FACTOR • SAMPLING RATE • USB LOGGING • RTC • TARE • CHANNEL ENABLE / DISABLE

Built for engineering teams who need trustworthy test data.

STRUCTURES

Beam, frame and component strain testing

MATERIALS

Experimental stress-strain characterization

MACHINES

Fixture, actuator and machine validation

RESEARCH

UG / PG / Ph.D. laboratory experiments

R&D

Prototype validation and custom test benches

EDUCATION

Strength of materials and experimental mechanics

ATMEN TECHNOVENTION

PRIVATE LIMITED

8-channel StrainDAQ • 7-inch touchscreen • Gauge factor configuration • Live multi-channel trends • Data logging

STRAINDAQ