



# TESTBOX<sup>®</sup> 1001

**MULTI CHANNEL QUASI-STATIC DAQ**

Trusted Technology in Quasi-Static Data Logging

TESTBOX1001 is a datalogger designed for Quasi-Static tests. The device is quite easy-to-use and optimized for strain gauges, LVDTs, potentiometers, load cells, thermocouples and all voltage-output sensors.

This datalogger includes 16-Bit ADCs (Analogue Digital Convertors), as well as, specially designed linear power supply, sensor excitation, analogue signal conditioner, filtering circuits are integrated. This all-inclusive architecture saves the user from the additional module selection and keeps the analogue signal quality at the maximum level.

TESTBOX1001 became the first choice of the researches especially in Civil Engineering, Mining, Geology, Metallurgy, Materials, Soil and Mechanical engineering tests where the change in the data is relatively in static nature. It can be connected to the computer over a single USB port from 8 to 64 channels. More than 10.000 tests have been conducted successfully with this device which is being used actively in hundreds of laboratories and testing institutes all over the world. Thousands of academical papers submitted based on these tests.

## "Save Your Research Budget!"

In addition to easy-to-use all included design and flawless data logging, another important aspect of TESTBOX1001 is the price/performance ratio. While logging the precise data in the most reliable way, it also provides the researcher to plan the research budget in an effective manner.

**"DEVELOPED 100% IN TDG LABORATORIES"**

## FEATURES

- 16-Bit Resolution
- 8-64 Channels
- Wide Sensor Compatibility:
  - Strain-Gauges & Strain-Gauge Based Sensors
  - Load Cells
  - Displacement Transducers (LVDT / Potentiometer)
  - Piezometers, Pressure Cells, Civil Eng. Sensors
  - Environmental Sensors
  - Voltage-Output Sensors
- Integrated "State of Art" Analogue Design - Sensor
- Excitation/Signal Conditioning/Filtering
- Multiple Gain Selection Possibilities for Millivolt Level
- Ideal for Laboratories
- User-Friendly Hardware & Software
- Data Security
- Price/Performance Advantage
- 100s of Labs, 10000s of Tests, 1000s of papers

## FIELDS OF APPLICATION

- QUASI-STATIC DATA ACQUISITION
- STRAIN-GAUGE OPTIMIZED
- LABORATORIES & TESTING FACILITIES
- CIVIL ENGINEERING LABORATORIES  
(Structural Mechanics, Materials, Soil, Hydro-Mechanics)
- MATERIALS TESTING
- METALLURGY, MINING, GEOLOGY ENG.
- MECHANICAL ENG.

# Technical Specifications

## CHANNELS

<b>Number of Channels</b>	8 per Device (Chassis)
<b>Extention</b>	Up to 64 Channels (per Gateway)
<b>Input Range</b>	$\pm 10$ V
<b>Input Type</b>	Differential
<b>Gain Selection</b>	Independent Adjustable Gain for Each Channel 8 levels from x1 to x890

## DIGITIZATION

<b>ADC</b>	16 Bit, Delta-Sigma Oversampling,
<b>Sampling Rate</b>	8 Örnek / Saniye (Kanal Başına)
<b>Sampling Type</b>	Multiplexing
<b>Dynamic Rate</b>	< 72 dB
<b>Filtering</b>	Analog Anti-Aliasing Low Pass Filter

## COMMUNICATION

<b>Devices and Gateway</b>	RS485
<b>Connection to Computer</b>	USB via Gateway

## SENSOR COMPATIBILITY

<b>Compatible Sensor Types</b>	Position Transducers (Potentiometric, DC Type, Strain Based) Load Cell LVDT (DC Type) Voltage Output Sensors Full Bridge Strain Based Sensors Strain Gauge (via <u>Q-Cable</u> ) Thermocouple (via <u>TC Connection Box</u> ) RTD (via <u>RTD Cable</u> )
<b>Sensor Excitation (Supply) Options</b>	5 VDC, 10 V DC (Independently Adjustable via Switch For Each Channel)

## POWER

<b>Power Input</b>	220 V AC - 50 Hz
<b>Power Consumption</b>	10W Max.
<b>Gateway</b>	9V DC 500 mA Adapter

## INPUT / OUTPUT INTERFACES

<b>Channel Inputs</b>	DSUB9 Female
<b>Power Input and Chain</b>	C14 Connector (IEC Power Cable, Computer Type)
<b>Inter Connection (RS485)</b>	2 x DSUB9 Male
<b>Gateway Communication</b>	USB B Type (Printer Cable)
<b>Gateway Power</b>	DC Jack
<b>Display</b>	7-Segment Address Display

## PHYSICAL & ENVIRONMENTAL

<b>Dimensions</b>	288 x 103 x 160 mm
<b>Operating Temperature</b>	-20 C° ... + 60 C°
<b>Storage Temperature</b>	-30 C° ... + 80 C°
<b>Enclosure</b>	Aluminium, Laboratory Type

## ACCESSORIES

<b>TESTBOX Bridge</b>	Gateway for Computer Connection (1 Gateway is Included Free of Charge To Be Used With Up To 8 Devices)
<b>TESTBOX Q-Cable</b>	120, 350 Ohm Quarter/Half Bridge Completion Cable
<b>TESTBOX RTD Cable</b>	For Connection PT100 sensors
<b>Thermocouple</b>	Connector Box for Multiple Thermocouple Inputs with Cold Junction Compensation Sensor

## CERTIFICATION

<b>CE</b>	LVD (2014/35/EU) EMC (2014/30/EU)
<b>Local</b>	Home (Inland) Produce Certification
<b>Calibration</b>	TDG Calibration Lab. Factory Calibration

## SOFTWARE

<b>TDG Software</b>	EASYTEST BASIC
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