



BLUDAQ®

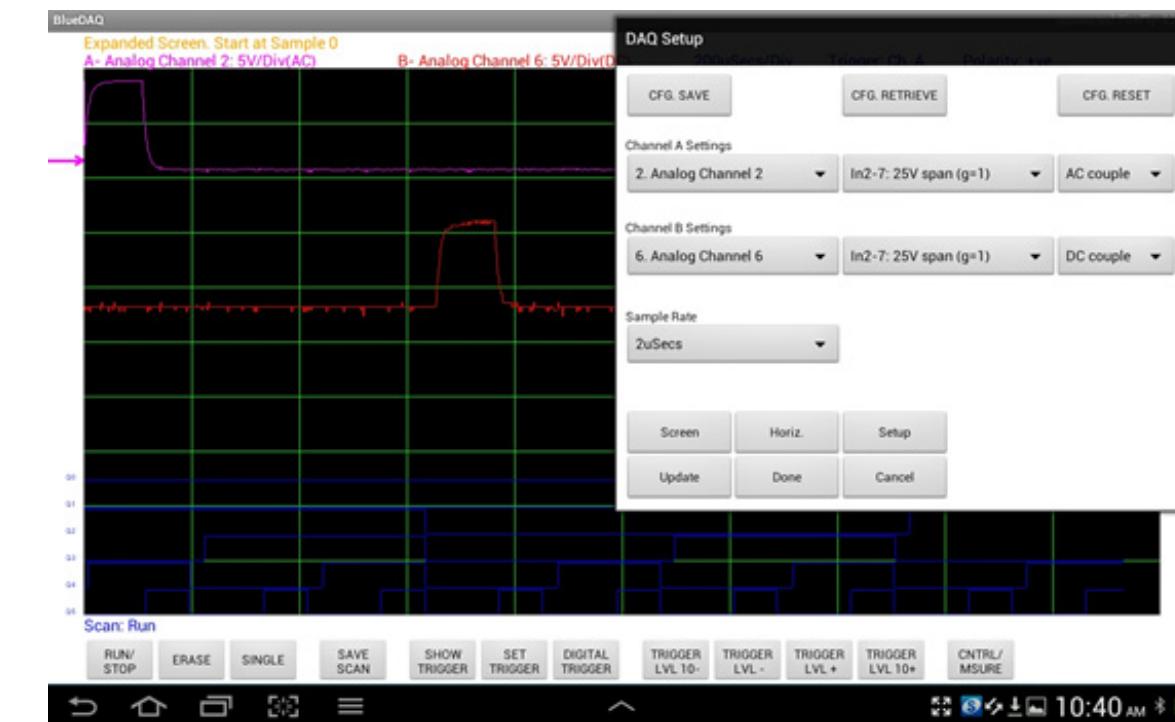
Bluetooth Data Acquisition Module

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- 2 isolated analog current (AC/DC) inputs 0-10A
- 1 isolated DC voltage input 0-300V
- 7 analog inputs 0-30V AC/DC
- 2 differential analog inputs
- 1 thermocouple input -100 to 450°C
- 1 built in ambient temperature sensor -40 to 80°C



BLUDAQ® requires minimal panel space. The Bluetooth transceiver can be connected to the BLUDAQ® module via a standard RS232 cable or mounted directly on the module.



Screenshot from BLUDAQ® display

BLUDAQ® is more than just a DIN rail mounted signal conditioner. It is really a DIN rail mounted oscilloscope and it's so economical you can afford to put one in every control cabinet. It was designed to allow troubleshooting or monitoring of devices within a control cabinet, with the system powered, from a safe distance. No risk of arc-flash or other hazards. It can be temporarily installed in the cabinet during system testing or commissioning or installed permanently for long

term monitoring.

BLUDAQ® has a total of 20 inputs – 6 digital and 14 analog. This includes two current inputs rated 0-10A ac/dc, one 0-300Vdc input, seven 0-30Vac/dc inputs, two differential voltage inputs for use with current shunts, one thermocouple input as well as an internal temperature sensor for monitoring ambient temperature. All these inputs can be displayed on an Android tablet via a 115.2K baud Bluetooth link. No matter what you want to measure, the

BLUDAQ® module should have a compatible input.

The tablet display looks like a modern digital oscilloscope complete with horizontal and vertical scaling, triggering options and more. BLUDAQ® is not a data logger – it provides real time status of the inputs.

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SPECIFICATIONS

Analog inputs

There is an on-board multiplexer that allows for the following analog input signals:

2 isolated analog current (AC/DC) inputs 0-10A

- isolation: 2KV channel-channel, input-DC supply
- input impedance: 1.2MΩ
- frequency response: 80 KHz

1 isolated 300V AC/DC voltage input

- isolation: 2KV channel-channel, input-DC supply
- input impedance: 150KΩ
- frequency response: 30 KHz

7 single ended analog inputs 0-30V

- isolation: non-isolated (must be referenced to 0V)
- input impedance: 35KΩ
- frequency response: 80 KHz

2 differential analog inputs 0-0.5V

- isolation: non-isolated (must be referenced to 0V)
- common mode rejection: 30VD
- input impedance: 200KΩ differential, 100KΩ common mode
- frequency response: 1 Hz

1 thermocouple input

- type: K
- range: -80 to 450°C

1 built in temperature sensor

- range: -20 to 80°C (ambient temperature)

Digital inputs

6 digital single ended inputs

- input: 10-30V (maximum "0": 10V, minimum "1": 15V)
- input impedance: 16KΩ
- frequency response: 70 KHz

In addition, channel D0 doubles as an event counter (to 32767- the number count is not preserved through a power cycle event) and D1 doubles as a frequency counter (to 500KHz).

Data Acquisition Rate

The update rate is 100KHz. For each sample period the BLUDAQ® will capture two analog channels and six digital inputs. The analog data is gathered as 8 bit values and will gather 2000 readings on each channel at settable sample rate. Any of the 11 analog inputs can be multiplexed for viewing on either of the two analog display channels.

Analog output

There is a single analog output adjustable from 0 to 10VDC, 10mA.



PWM Output

There is a single PWM output configured as open collector capable of switching 30V 100mA. Its output frequency can be varied from 1KHz to 50KHz and its duty cycle from 0% to 100%.

Digital Outputs

There are 3 open collector digital outputs capable of switching 30V 100mA.

RS232

Communications with BLUDAQ® is via a DB9 connector on the front panel configured for RS232 serial operation. The module is provided with a Bluetooth transceiver that plugs in to the DB9 connectors and allows communications with the tablet.

Physical

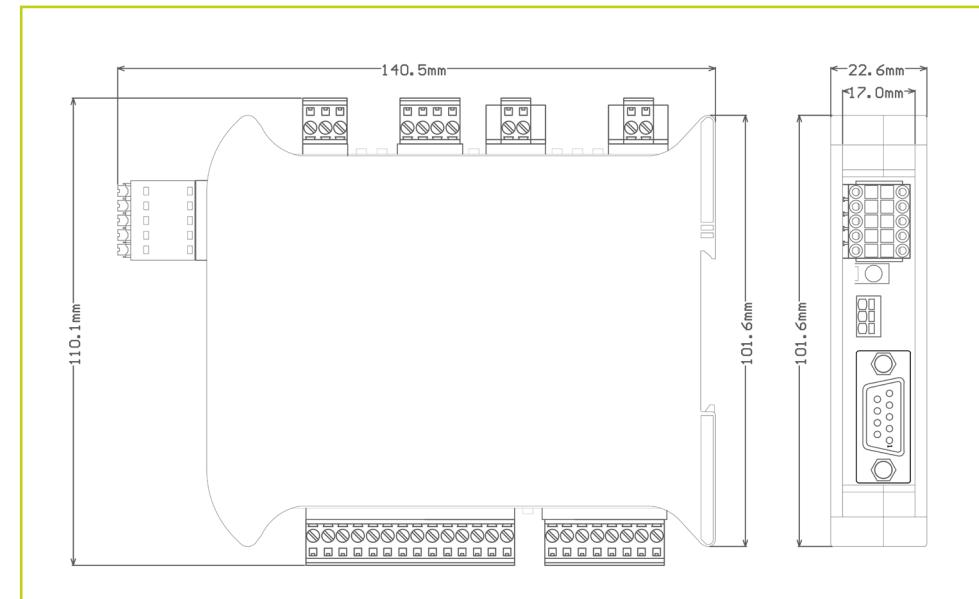
Mounting:	35mm DIN rail
Dimensions:	W: 22.5mm H: 110mm L: 122mm / 185mm with Bluetooth transceiver
Operating temperature:	-20 to +50°C

Other

Approvals

Ordering information

Catalog numbers	
BLUDAQ®	330443
BLUDAQ® kit	330482 includes BLUDAQ® and Bluetooth transceiver
RS232 cable	330479 required if Bluetooth transceiver is to be remote mounted



For a more detailed description of the BLUDAQ® module and App download please see the User's Manual.