

WIRELESS DATA LOGGERS

FEATURES

- 16 Analog Single Ended or 8 Differential Channels
- 176 Parameters Logged Simultaneously
- Selectable Logging and Update rates
- Communication - RS232 Serial & RS485 MODBUS RTU
- 24 bit resolution
- Low Power Consumption with Rechargeable Batteries
- Industrial Grade - IP65 Sealed
- Device configuration over SMS & GUI
- Over the Air Firmware Update
- Desktop & Mobile App

APPLICATIONS

- Solar Meteorological Station
- Wireless Weather Monitoring Station
- Remote Sensing
- Automatic Water Level Monitoring
- Industrial Monitoring
- Industrial Automation
- Process Monitoring
- Renewable Energy Monitoring

DESCRIPTION

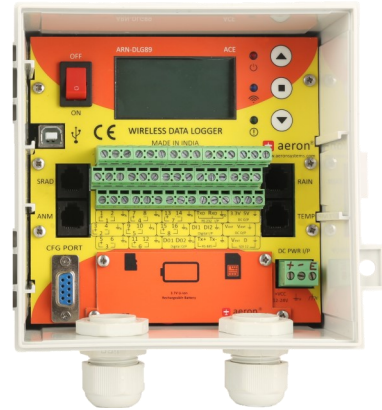
ACE DLG89 is a universal precision datalogger for outdoor applications. It is best suited for renewable energy monitoring and meteorological applications. ACE dataloggers take periodic measurements from a diverse set of weather sensors and store data in onboard SD card memory. The dataloggers have an integrated GSM modem to communicate sensor data securely to the cloud server for remote monitoring.

DLG89 is an advanced version of the ACE datalogger with 24 bit analog-to-digital converters. It has up to 16 ADC channels (16 single ended or 8 differential - each 24 bit). High resolution ADC (24bit) ensures precision data capture from micro-volt sensors such as pyranometers.

The DLG89 datalogger has an SD card slot for local data storage expandable up to 32GB. It also features USB connectivity which can be used for retrieval of SD card data on laptop or tablet. LCD display and keypad makes configuring device easy even on site. Customers can use android application and subscribe to Aeron's web portal for remotely accessing data.

DLG89 is available in 3 variants 4C, 8C and AC which refer to the available sensor input channels in the device (4C has 4 channels, 8C has 8 channels and AC has 16 channels).

ACE DLG89 4C / 8C / AC





TECHNICAL SPECIFICATIONS

Parameter Name	Parameter Value		
	ACE		
	DLG89 AC	DLG89 8C	DLG89 4C
Analog I/Ps			
Channels	16 single ended 8 differential	8 single ended 4 differential	4 single ended 2 differential
Additional Channels	Davis® Rain Bucket Davis® Anemometer Aeron / Davis® Air Temperature Humidity Davis® Solar Radiation		
On-board Sensors #	Barometric Pressure		
Range of I/P sensors	0 - 10 V 0 - 100 mV 0 - 20mA 80 - 200Ω (PT 100) 800 - 2000Ω (PT 1000)		
Analog to Digital Converter (ADC)			
Resolution	24 bit		
Accuracy	±0.01% of FS		
Type	Sigma - Delta		
Sampling Rate	Up to 10 Hz		
Parameters			
Simultaneous Parameters	up to 176 parameters - including sensor and calculated parameters		
Data Rate	1 minute (min) to 24 hours (max)		
Digital I/P	2		
Digital O/P	2		
Serial I/P	RS232, SDI12		
Communication			
Network Type	Quad-Band GSM		
Frequency Band	850/900/1800/1900 MHz		
Data Rate	85.6 Kbps upload and 42.8Kbps download		
Data Security	AES (128 bit)		
Interfaces	RS232 Serial, RS485 MODBUS RTU & USB as mass storage		
Micro-processor	32 bit		
Display	Graphic LCD Display 128 x 64 resolution		
LED Indicators	Power, Network Health, MODBUS Communication		
Keypad	3 button Keypad		
Date & Time	RTC with backup battery (replaceable) Accuracy: 10 ppm / °C RTC with backup battery (replaceable)		
Time Synchronization	GPS (configurable 2 hours to max 23 hours), Server		

- refer ordering information

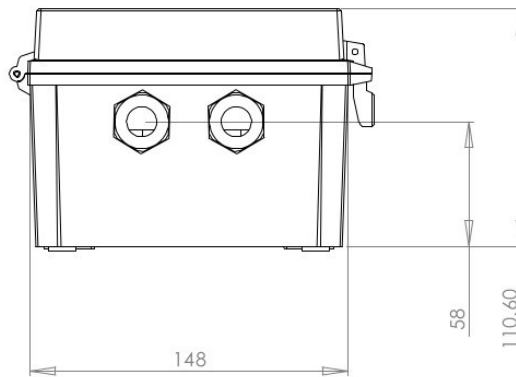
TECHNICAL SPECIFICATIONS

STORAGE	
Internal Flash	8 MB
External Flash	8 GB Micro SD (default) (expandable to 32 GB)
ELECTRICAL	
Voltage I/P	+9 to +28 VDC
Charge Current	< 180 mA (in operation) < 60 mA (in power down mode)
Batteries	2.6 Ah Rechargeable Li-ion batteries
ENVIRONMENT	
Operating Temperature	-20°C to +70°C
Storage Temperature	-40°C to +80°C
Protection	IP65
Housing	ABS UV Protected
Dimensions	150mm (L) x 150 mm (W) x 110.6 mm (H)
Weight	740 gms

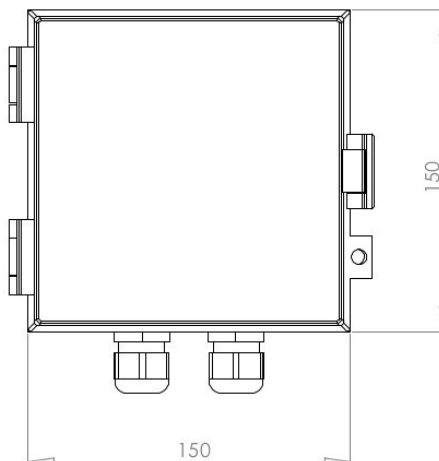
MECHANICAL DIMENSIONS

All dimensions in mm

DLG89 - Bottom View



DLG89 - Front View



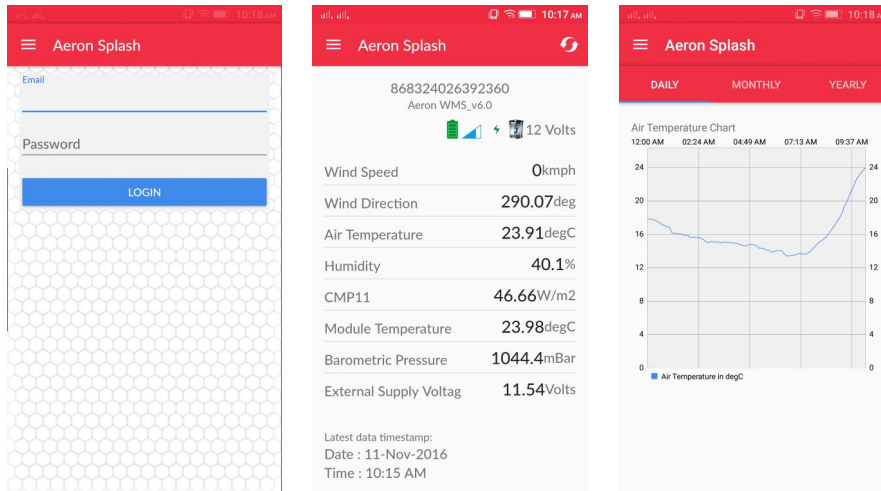
Web Portal, Desktop and Android Application



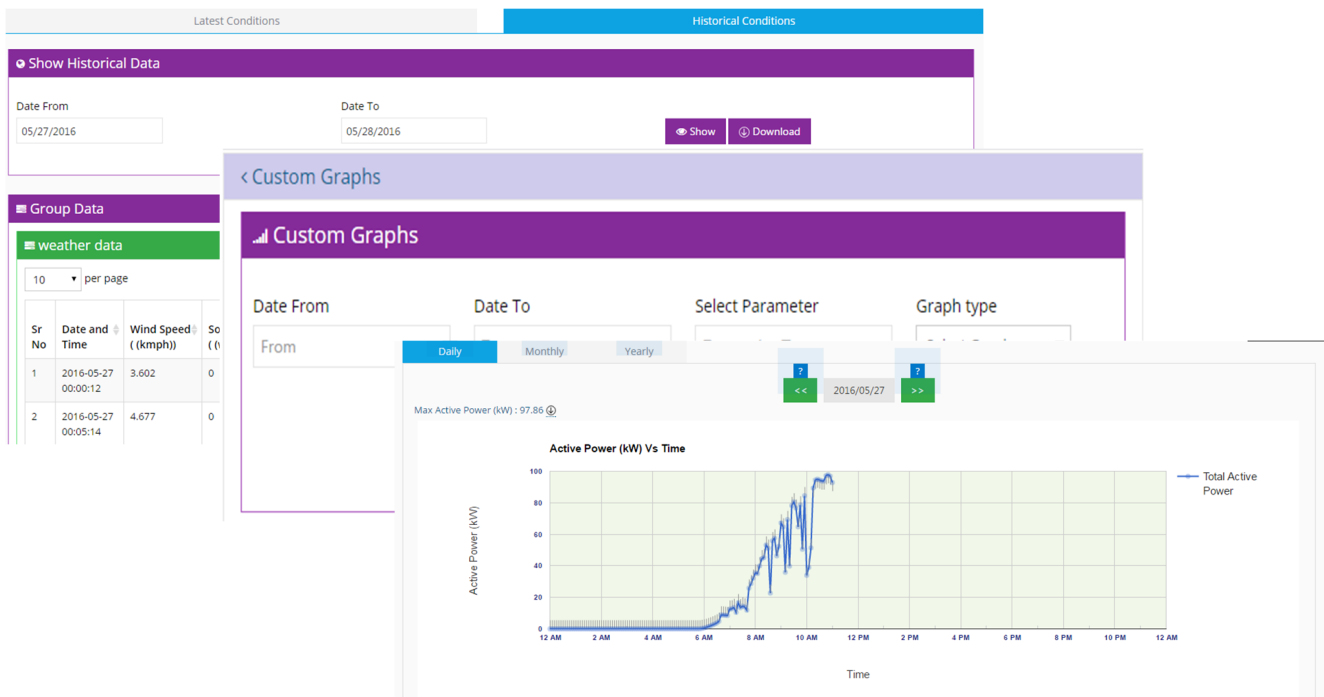
A web portal application and a user friendly Android Application is available with DLG89. Desktop application allows configuration settings and data retrieval. The Android app allows data viewing only.

Note: The Android app is available ONLY for customers who use Aeron's Web Services.

Android Application



Web Portal



ORDERING INFORMATION

ACE - DLG89 - XC - YY

4C - 4 Analog Channels (Product Code: 23001)
 8C - 8 Analog Channels (Product Code: 23002)
 AC - 16 Analog Channels (Product Code: 23003)

00 - without Barometric Sensor
 01 - onboard Barometric Sensor