



WELCOME

WILLKOMMEN **BENVINGUT** **velkommen** **HORAS!** **merhbe** **welkom** **ようこそ** **KENA KA KGOTSO!** **WELKOM** **Bula** **WELKOM** **CROESO** **bienvenue** **歡迎** **BENVENUTO** **MERHBE** **歡迎光臨** **Croeso** **Walcome**

স্বাগত **bon bini** **Aloha** **BARUCH HABA** **WELCOME** **benvenue** **אבה רורב** **witaj** **歡迎** **WELKOM**

Добро пожаловать! **merhbe** **めんそーれ** **歡迎** **kalός Oρίσατε** **ZOO SIAB TXAIS TOSI** **BIACMO SALVE** **BINE AȚI VENIT** **MENSOOREE** **الهـس وـالـهـ**



About Dataforth



- **Established in 1984 – 36 years in business**
- **Headquarter Tucson, Arizona, USA**
- **Serving over 10k customers world-wide**
- **ISO9001:2015 Registered**
- **RoHS, UL, CE, CSA, ATEX certifications**
- **Six-Sigma Reliability**
- **Made in the USA**





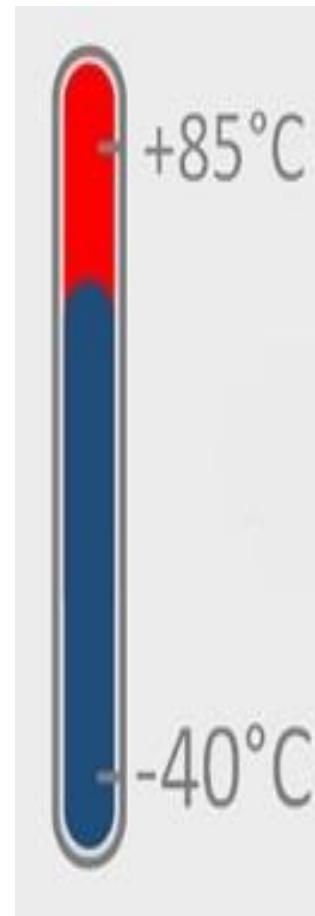
Instrument Class™
INNOVATION



Manufacturing in the USA: Tucson, AZ



Designed for
installation in Class I,
Division 2
hazardous locations





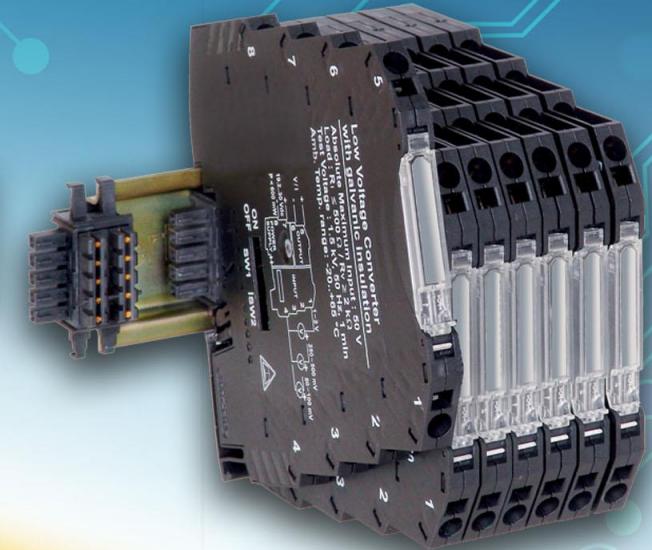
SCM7B



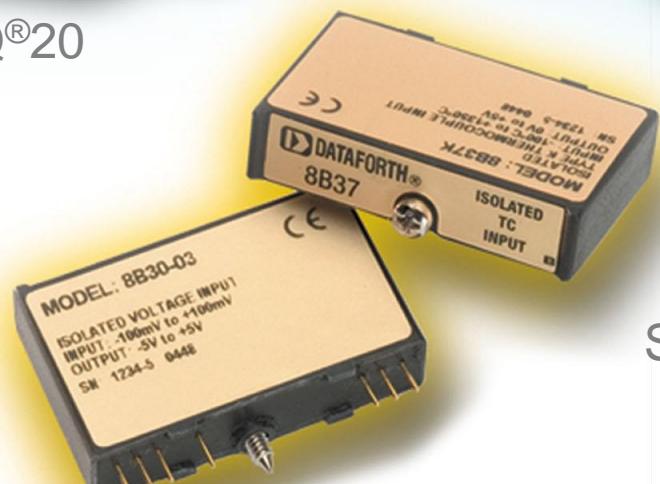
MAQ®20



SCM5B



DSCA



SensorLex® 8B

Aerospace and Aircraft Applications



Engine Testing and Monitoring Applications



Mining, Earthmoving and Agriculture



Power Generation & Monitoring



Oil / Gas Pipeline & Process Monitoring



Semiconductor & Process Equipment



.... and many more



Why Purchase Dataforth Products?

- In Business for 35 Years, ISO9001:2015 Registered
- Products Manufactured in Tucson, Arizona USA
- Very High Quality and Reliability, Better than 6σ
 - below 3.4 defects per million opportunities (DPMO) (99.99966% Good)
- 1500VAC Continuous Isolation
- Up to 240VAC Input Protection
- 5000V Transient Input Protection
- Up to 6-Pole Low-Pass Filtering
- Vibration test our products to common industry standards
- $\pm 0.03\%$ Accuracy
- -40°C to +85°C Operating Temp
- Certifications: CSA/UL/ATEX/CE/EN



**Analog Isolation
&
Signal Conditioners**

5B – 7B – 8B – DSCA



Images not to scale

SCM5B vs SCM7B vs 8B vs DSCA

Feature	<u>5B</u>	<u>7B</u>	<u>8B</u>	<u>DSCA</u>
Supply Voltage	+5Vdc +/-5%	14-35Vdc	+5Vdc +/-5%	15-30Vdc
Isolation	3 way Input-Output-Power	2 way Input - Ouput/Power	2 way Input - Ouput/Power	3 way Input-Output-Power
Input Withstand	240V rms	120V rms	240V rms	240V rms
Output Range	0-5Vdc, 0-10Vdc +/-5Vdc, +/-10Vdc 4-20mA, 0-20mA	1-5Vdc, 0-5Vdc 0-10Vdc, +/-10Vdc 4-20mA, 0-20mA	0-5Vdc +/-5Vdc 4-20mA, 0-20mA	0-5Vdc, 0-10Vdc +/-5Vdc, +/-10Vdc 4-20mA, 0-20mA
Accuracy	+/-0.03% Typical	+/-0.03% Typical	+/-0.10% Typical	+/-0.03% Typical
Nonlinearity	+/-0.005% Span	+/-0.01% Span	+/-0.02% Span	+/-0.005% Span
Output Noise	0.2uVrms	1.0mV	0.3uVrms	0.2uVrms
Output Control	Enable / Disable	Always Enabled	Always Enabled	Always Enabled
Supply Sensitivity	+/-2uV/% RTI	+/-0.0001%/%V	+/-0.0001%/%V	+/-0.0001%/%V
Dimensions (HxWxT)	2.28" x 2.26" x 0.6"	2.13" x 1.7" x 0.6"	1.00" x 1.65" x 0.41"	2.95" x 0.89" x 4.13"
Interface Pins	14	5 or 6	7	Screw Terminal
Relative Cost	* * *	* *	*	* * * *



COMPETITIVE ADVANTAGE

Inventory of 1000's of Modules

Instrument Class® Performance

Broadest Analog I/O Options in the Market

Dataforth's Quality Reputation

Better than Six Sigma Reliability

Design and Manufacturing in the USA

Competitively Priced

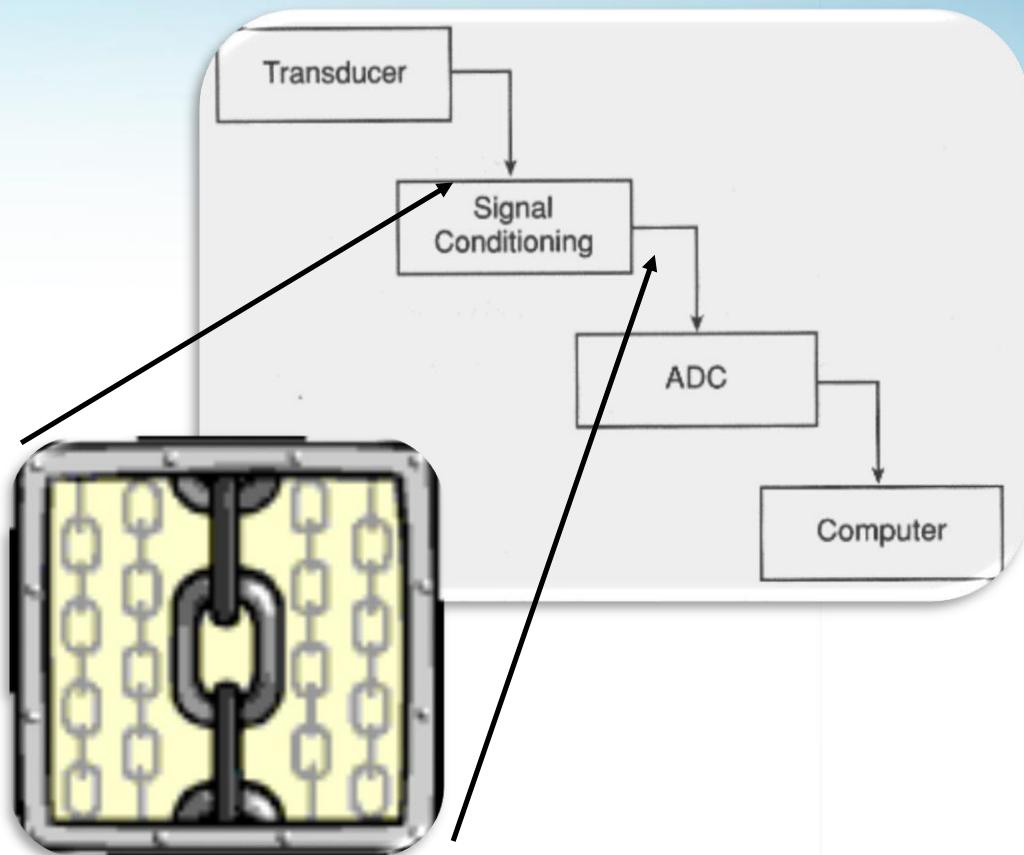
INDUSTRY COMPARISONS

Parameter	Dataforth	Industry Typical
Accuracy	+/-0.03%	+/-0.1% to +/1.1%
Nonlinearity	+/-0.005% span	+/-0.03% to +/-0.1%
Conformity	+/-0.02%	+/-0.05% to +/-0.3%
Isolation	1500Vrms	100Vdc to 1000Vdc
CMR	160dB @ 50 or 60Hz	80 to 160dB @ 60Hz
NMR	95dB @ 60Hz	35dB to 60dB @ 60Hz
Price	100%	120% - 140%

DATAFORTH® PROTECTION

Reinforces the Signal Path

- Protection
- Isolation
- Filtering
- Amplification
- Linearization





DATAFORTH® PROTECTION

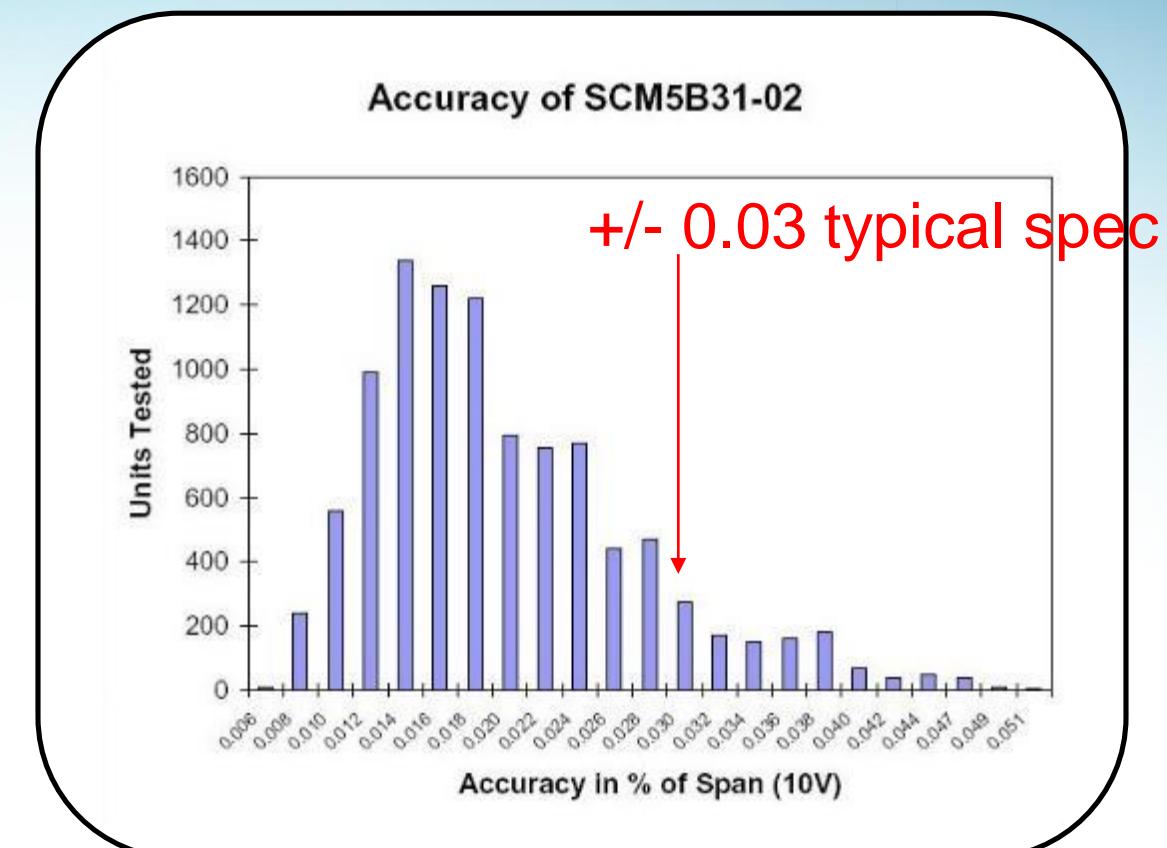
Typical Benefits

- Protects Equipment from Power Surges and Voltage Transients
- Eliminates and Prevents Ground Loops
- Reduces Electrical Noise in Signal Data
- Ready to use in Industrial Environments
- System can be Easily Expanded
- Maintenance Free, MTBF > 500,000 Hrs

Statistical Accuracy Distribution

“INSTRUMENT CLASS®” Performance

Conservative Design
Philosophy across all
Modules





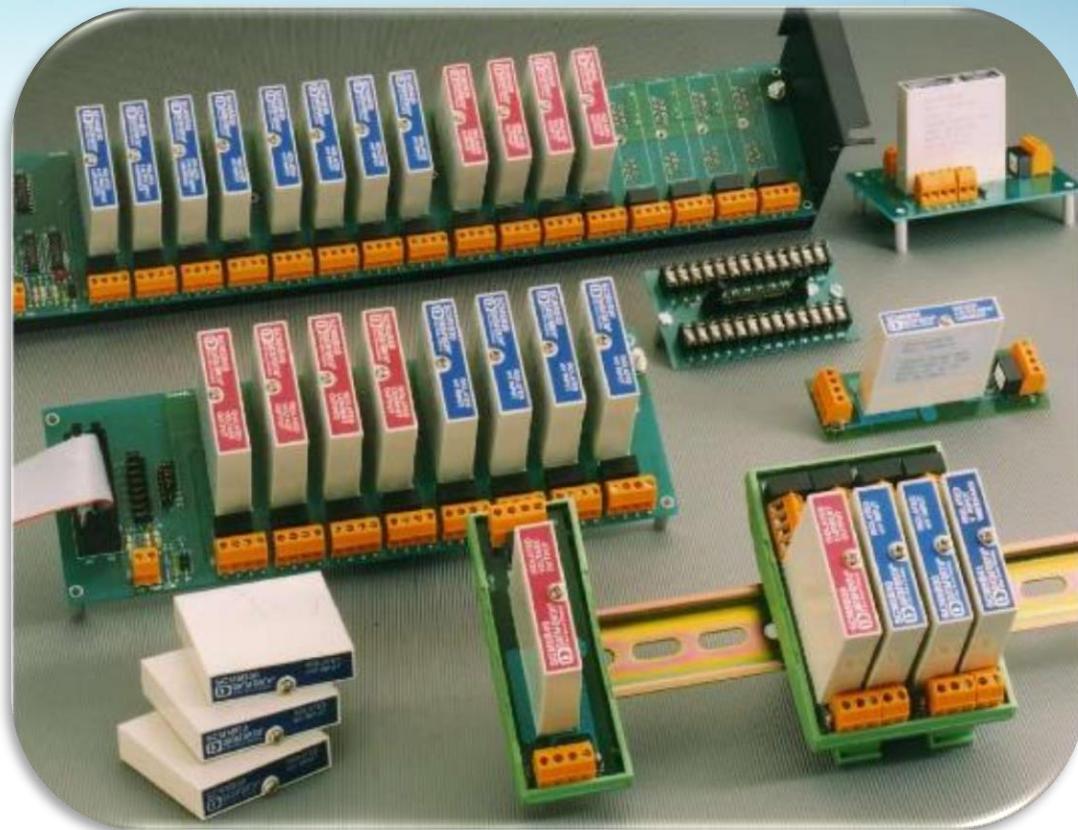
“INSTRUMENT CLASS®”

Performance

- Extremely Low Drift
- Highest accuracy
- Hazloc (Hazardous Locations) Certifications
- High Isolation

Existing 5B Modules Users

- Single
- Dual
- Quad
- 19" Rack

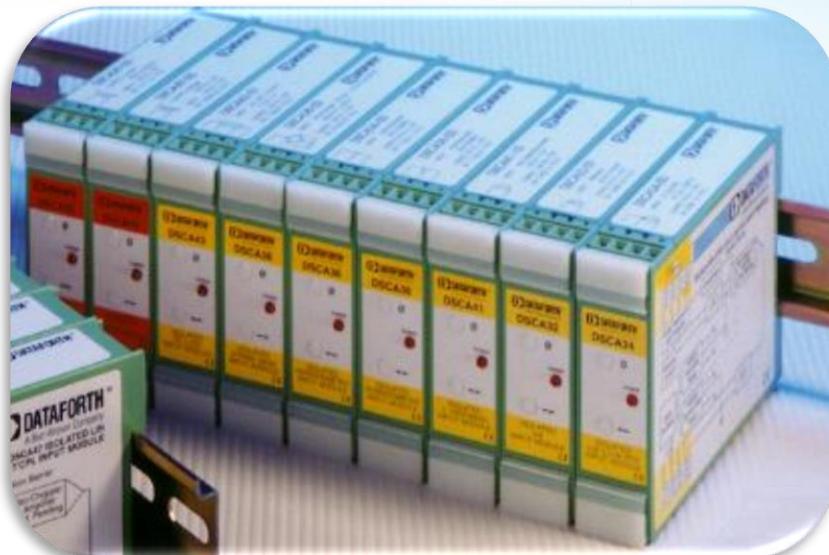




STANDALONE OPERATION

DSCA

- Available Power 15-30 vdc
- DIN Mounting
- Screw termination





STANDALONE OPERATION

- DIN Mounting Option
- Available Power 5 VDC
- Available Power 7-34 VDC
 - Built-in DC/DC converter





EOL of ADI Modules

Analog Devices (ADI) announces EOL (End of life) of their Signal Conditioning Modules

Analog Devices has announced a last time buy and EOL of their signal conditioning modules such as but not limited to

1B, 2B, 5B, and 7B.



AHEAD OF WHAT'S POSSIBLE™



Important Dates:

Last Time Buy Date: 09-Oct-2018
Last Time Ship Date: 09-Oct-2019

Dataforth SCM5B and SCM7B Signal Conditioning Modules

Pin-for-pin, we got you covered!
We are here to stay!



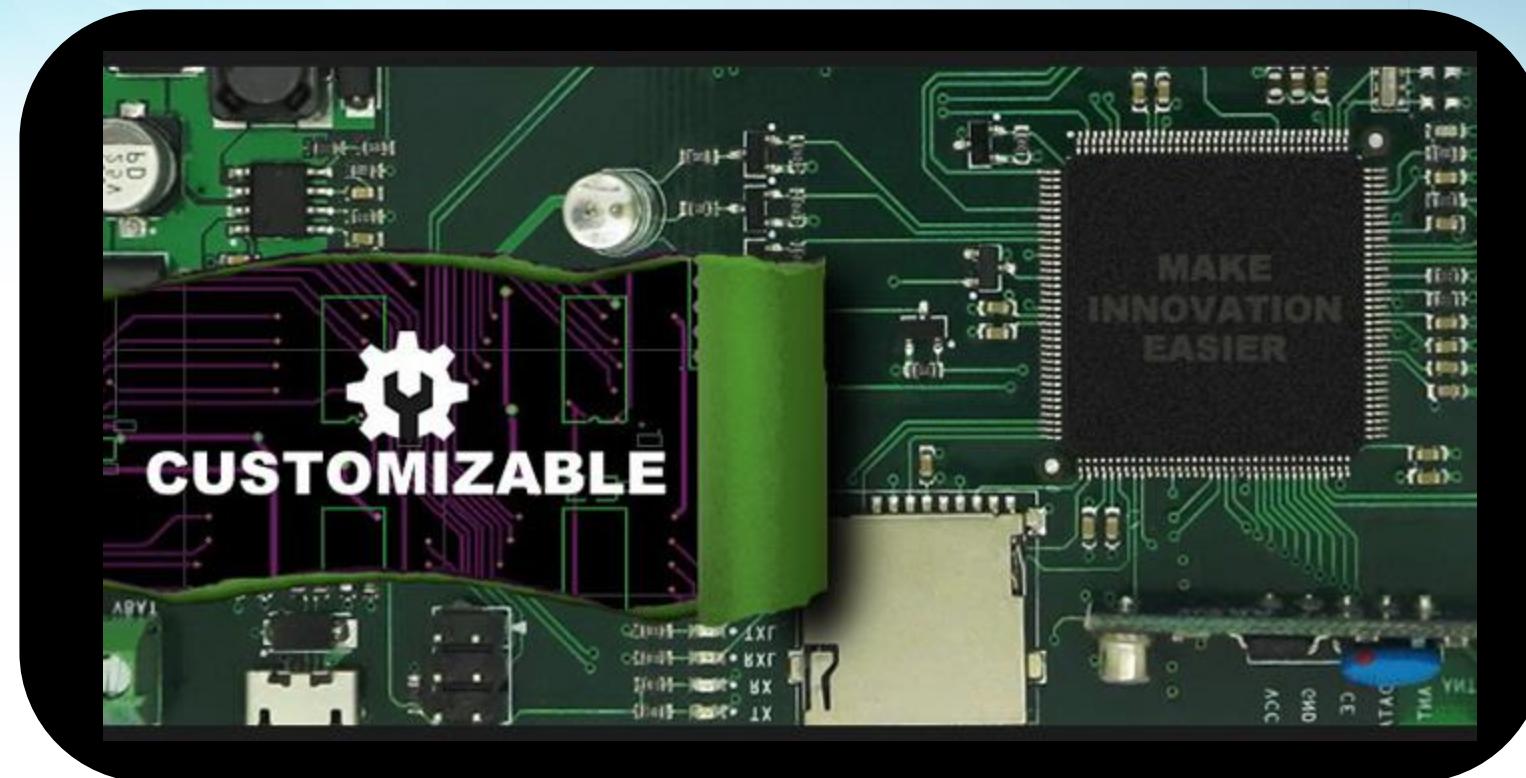


CUSTOMIZED DESIGNS



CUSTOMIZED DESIGNS

Need more than our Standard Input & Outputs?





Evolution of Data Acquisition



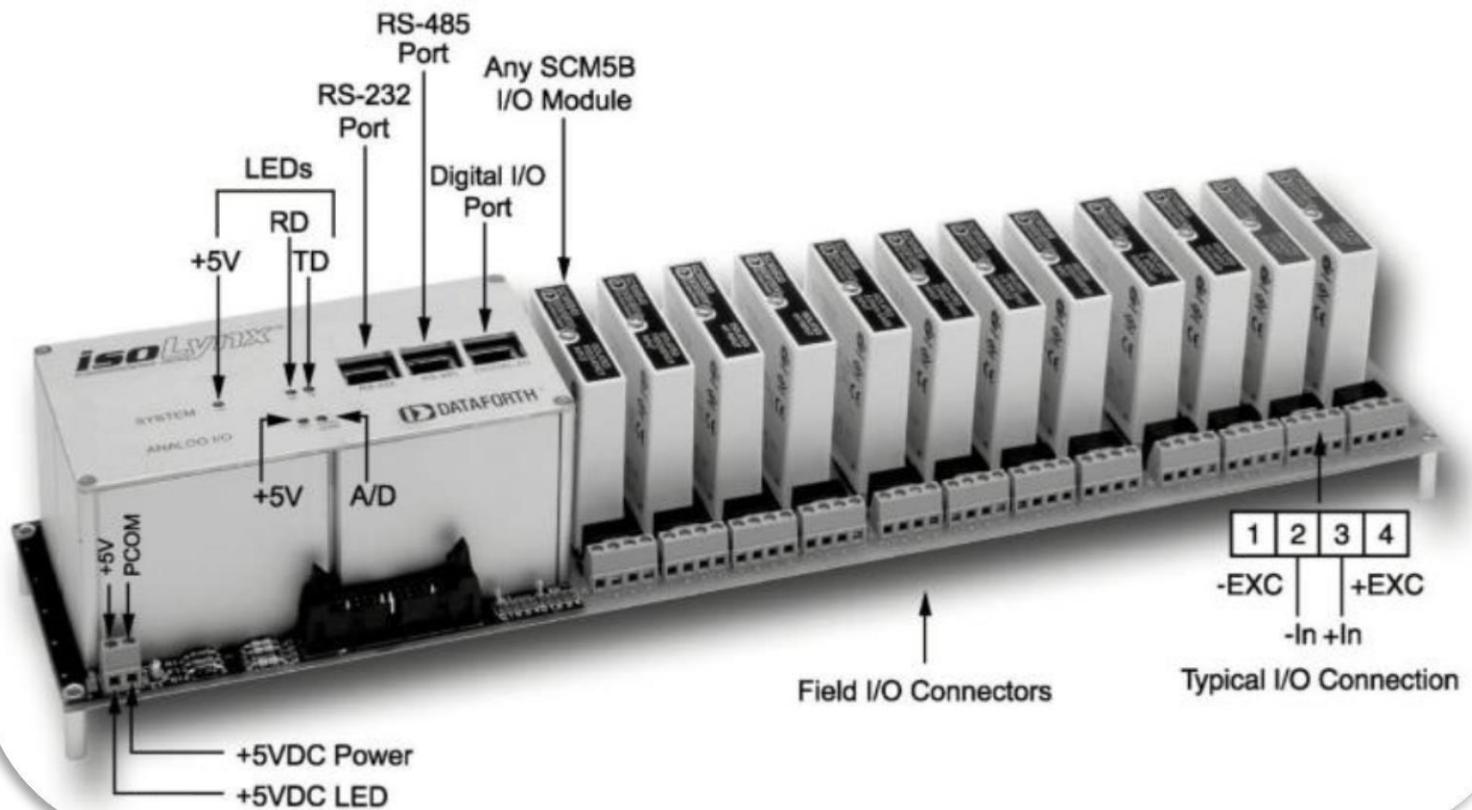
MAQ®20





5B isoLynx™ (SLX200)

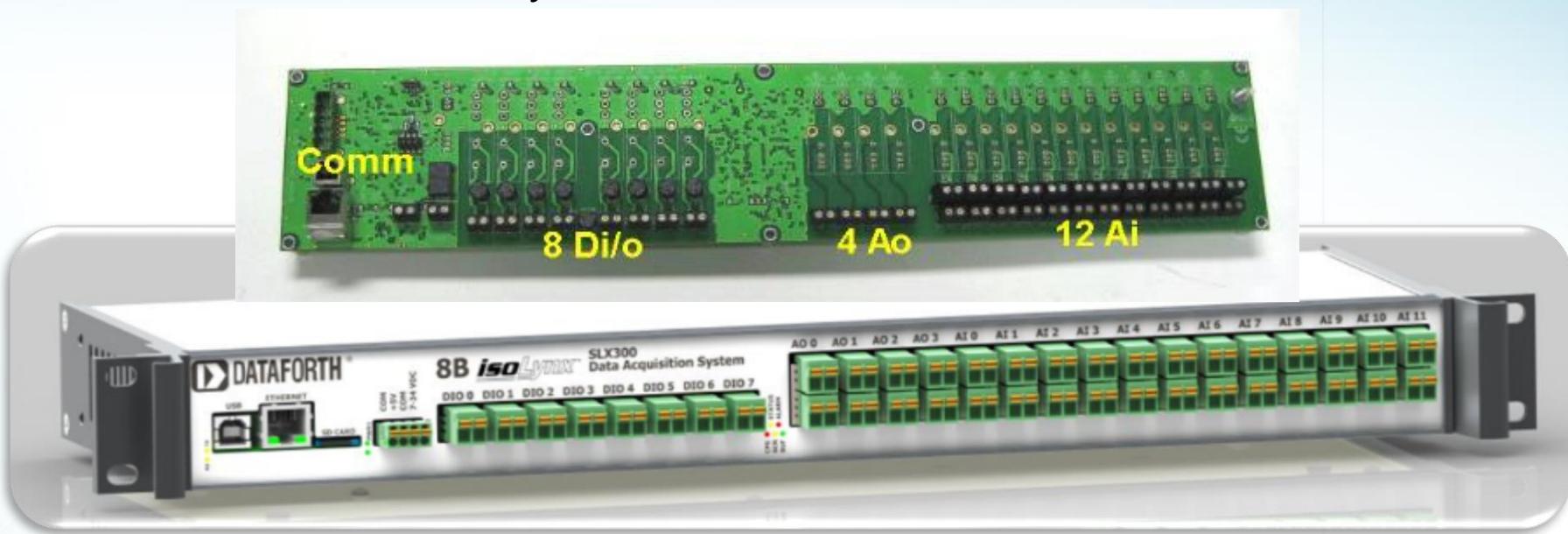
isoLynx™ Analog I/O Base Unit



High Channel Density

One PCB Base Board with Multifunction I/O

- 12 Channels of Analog Input Sockets
- 4 Channels of Analog Output Sockets
- 8 Channels Digital I/O Sockets
- 2 Counters / Timers (used by Di/o Sockets)
- 1 Comm Port / isoLynx Part Number





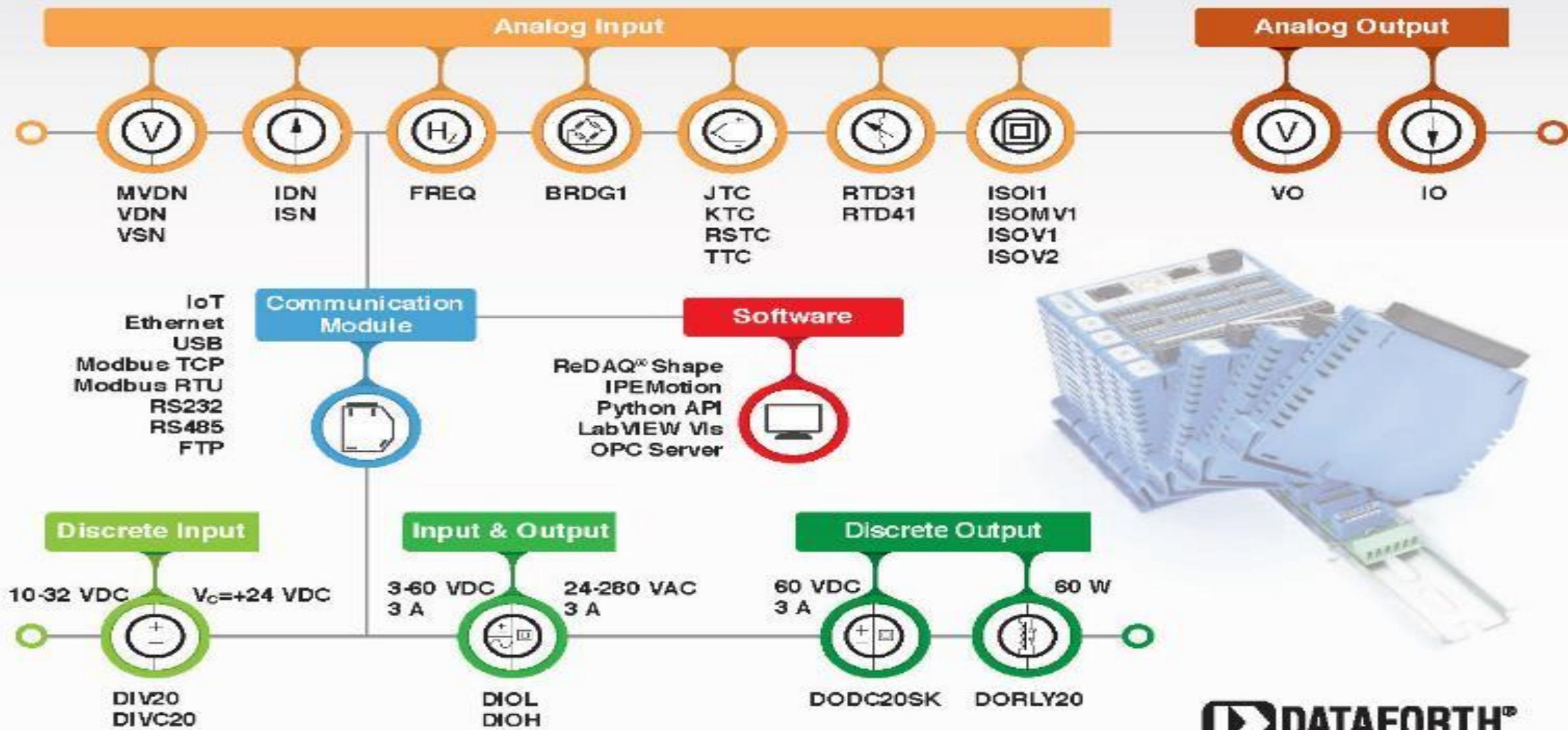
MAQ®20 DATA ACQUISITION SYSTEM



MAQ®20 Industrial
Data Acquisition &
Control System

 DATAFORTH®
Instrument Class Signal Solutions

The MAQ20 DAQ Eco-System





MAQ®20 Modular DAQ

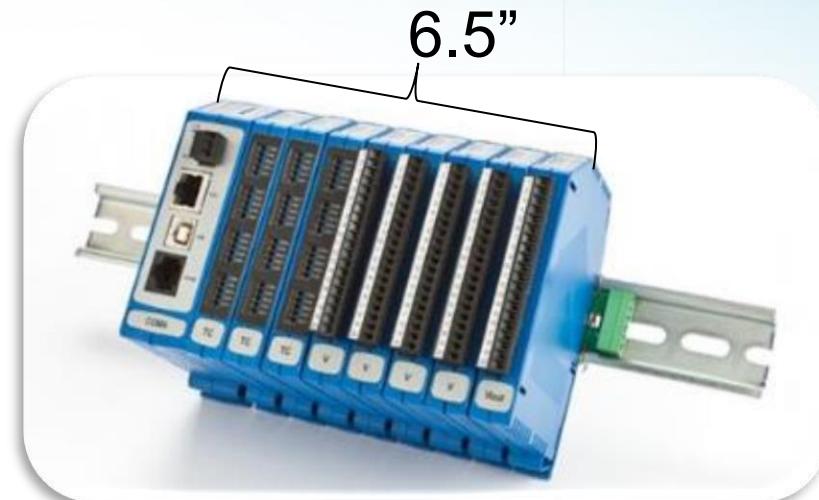
Backbone

- Snaps into DIN Rail
- Provides Power & Comm
- Hot swappable
- Available in 4, 8, 16, and 24 sockets (24 sockets = 384/480 analog/digital channels)



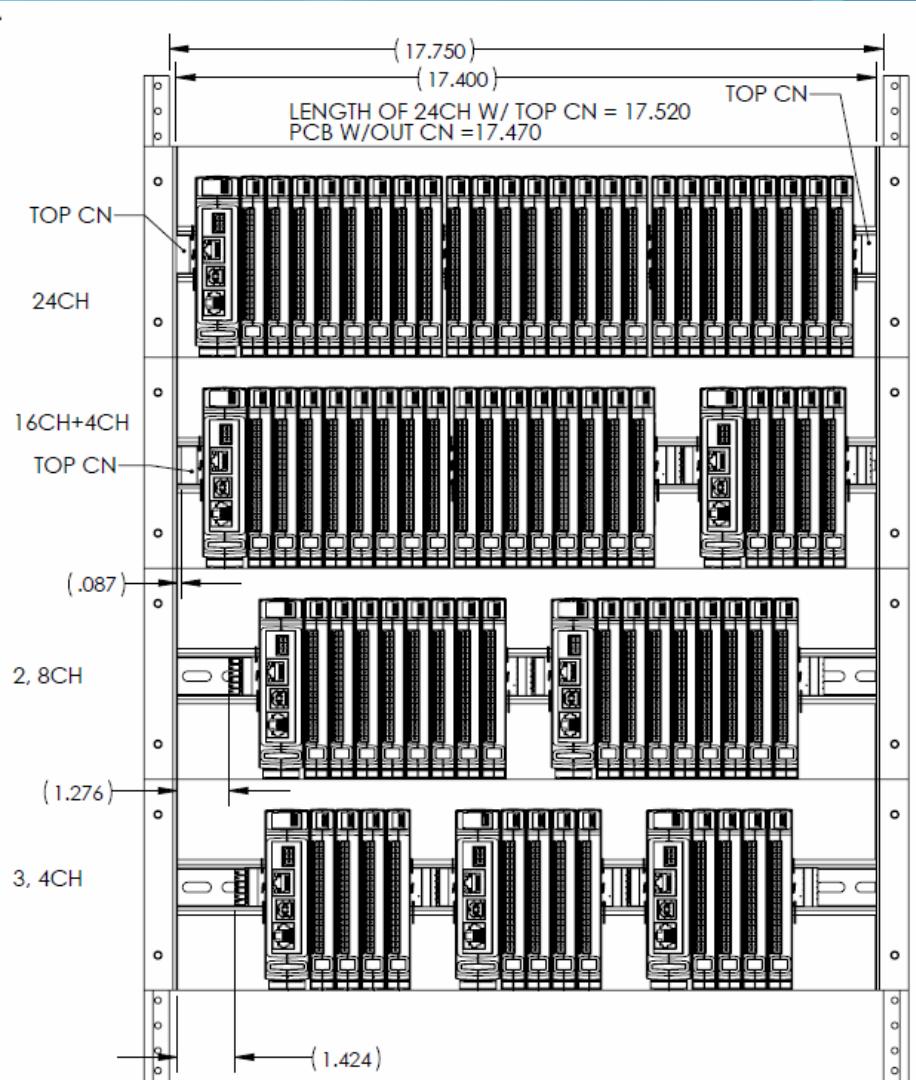
High Density

- Up To 24 modules
- Up to 368 Analog Channels
- Up to 480 Digital Channels



MAQ®20 Mounting Flexibility

- Many Configurations
 - I/O is Distributable
 - Firmware in each Module
 - Watchdog timer protection
 - Brownout Protection
- ➔ Reset to defined config!





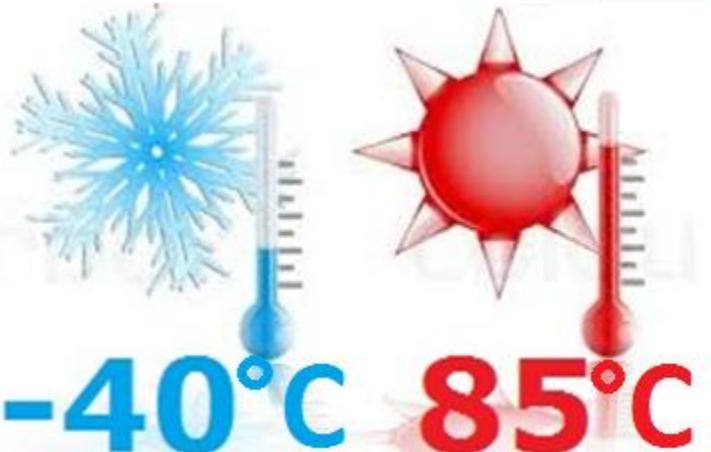
MAQ®20 Modular DAQ

7 – 34 VDC Input Power

- 12VDC Battery
- Standard 24VDC



Exceptional Operating Temperature





MAQ®20 COMPETITIVE ADVANTAGES

Advanced CJC Design Exceeds Competition Accuracy

Over Ranging V or I Input Ch Has No Effect on Other Chs

Backbone Does Not Use Multiple Pin and Socket Connectors

Auto-Load Sharing Power Boost Module Only One in Industry

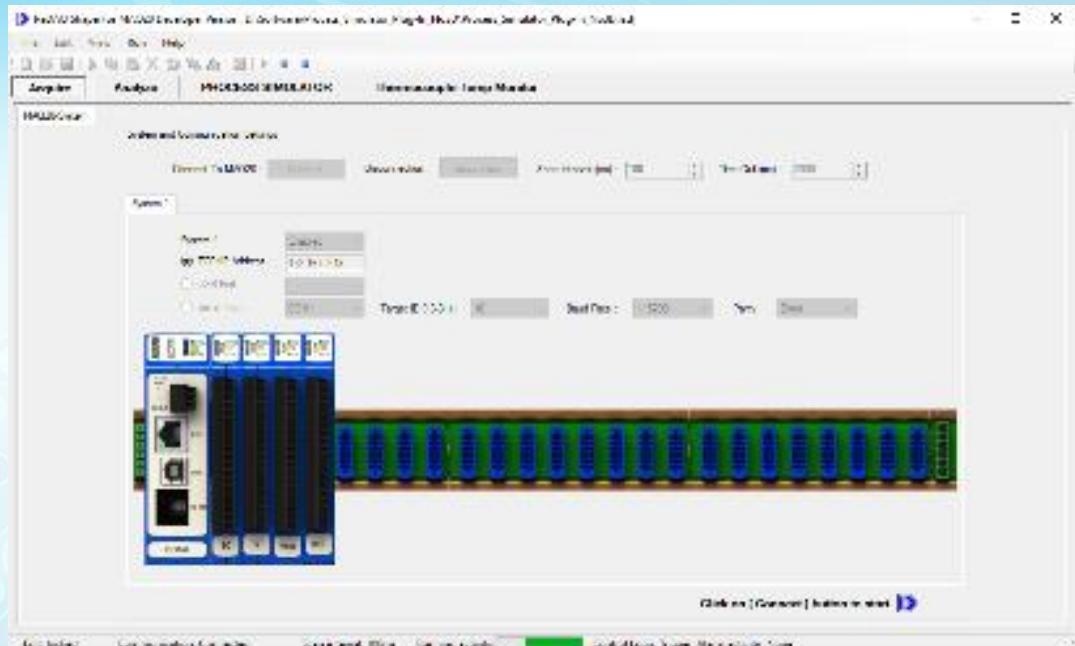
PID Interface in Shape is One of Easiest to Use



Software

ReDAQ® Shape

ReDAQ® Shape Overview



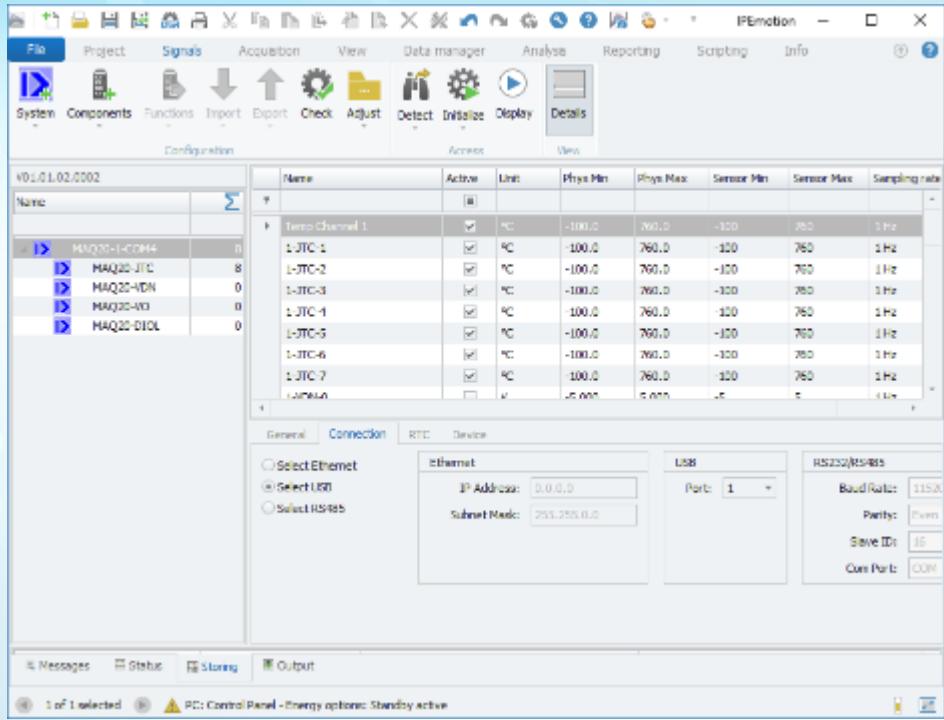
- Developed by Dataforth specifically for MAQ®20, designed with Microsoft's Visual Studio and National Instruments' Measurement Studio
- MAQ®20 Hardware Configuration
- Record Data
- Display via Graphical User Interface (GUI)



Software

IPEmotion

IPEmotion Overview



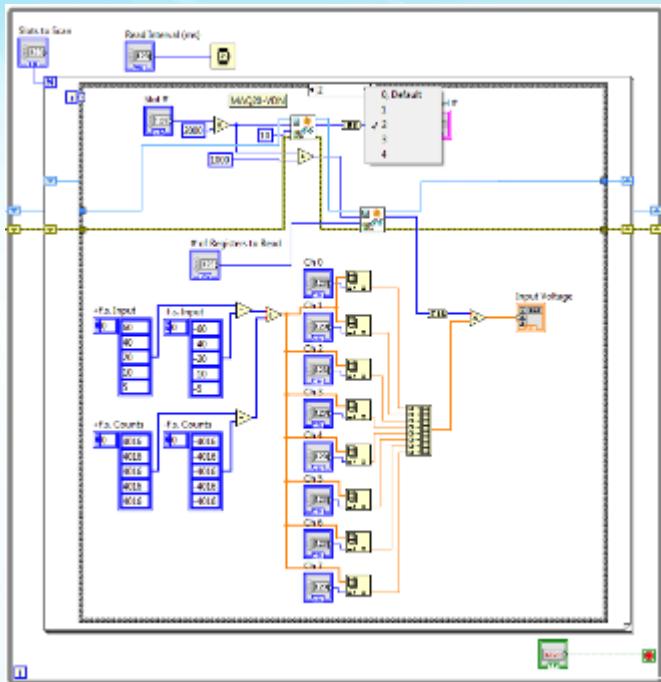
- Developed by IPETRONIK based in Germany
- Designed for German Automotive market
- Plug-In Architecture for Hardware Support
- Math and Logic functions
- Create Graphical User Interface (GUI)
- Data Storage, Analysis, and Post Processing
- Control Package Provides:
 - Software PID
 - Sequencing
 - Function Generator
 - Output Routing



Compatible Software

LabVIEW™

LabVIEW™ Overview



- Graphical Programming
- Popular in Test and Measurement Applications
- Math and Logic Functions
- Create Graphical User Interface (GUI)
- DSC Module can Provide IO server functionality and support for Modbus (Additional Cost)
- Unofficial Modbus Library Available
- Dataforth Examples Available with Documentation

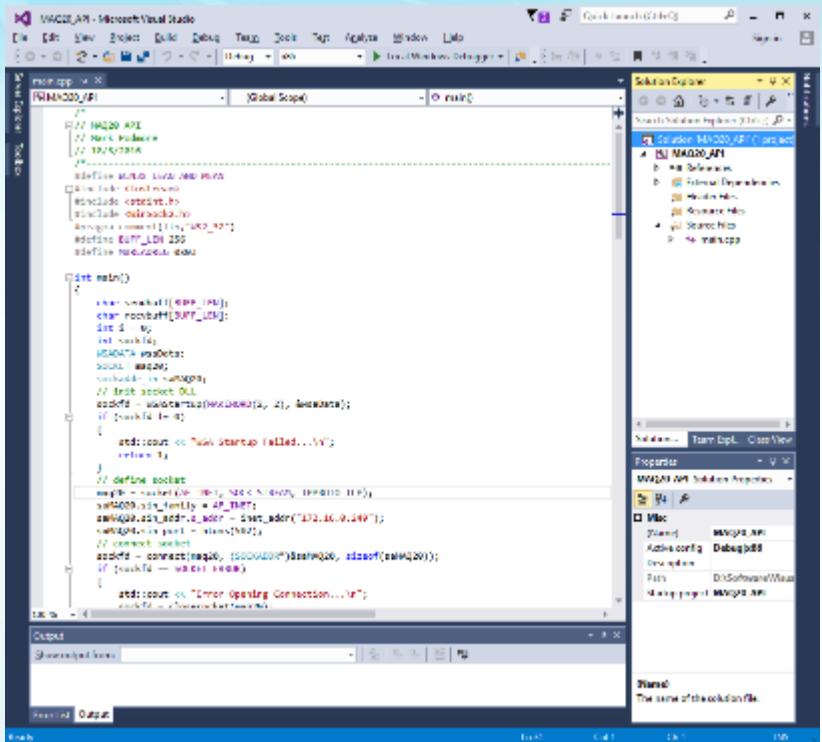


Compatible Software

Custom User Applications

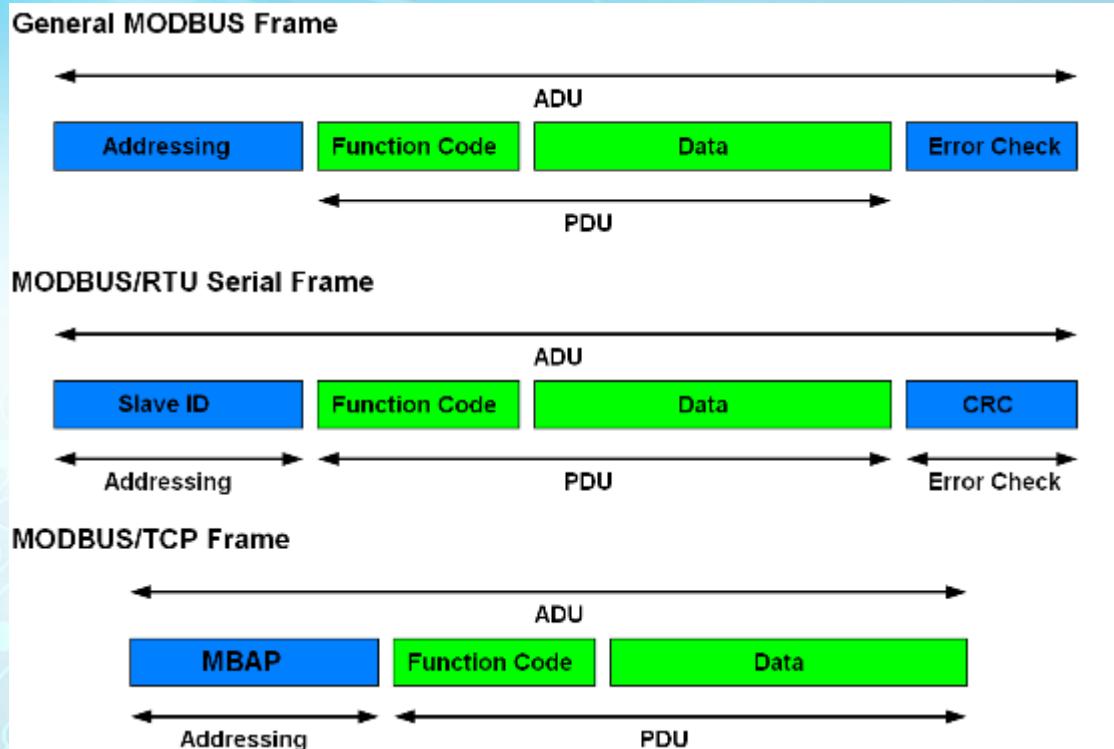
3rd Party Dashboards

Custom User Applications



- Any Language supporting TCP sockets
- USB, Serial or Ethernet
- Modbus Library (not essential)
- Function Codes
- C/C++/C#/Python/VB

Custom User Applications Modbus



- Support for RTU and TCP
- Four Functions Implemented:
Read Holding/Input Registers
Write Single/Multiple Registers
- Offset Addressing System
- TCP includes MBAP header and no CRC check, Error check performed by IP layer



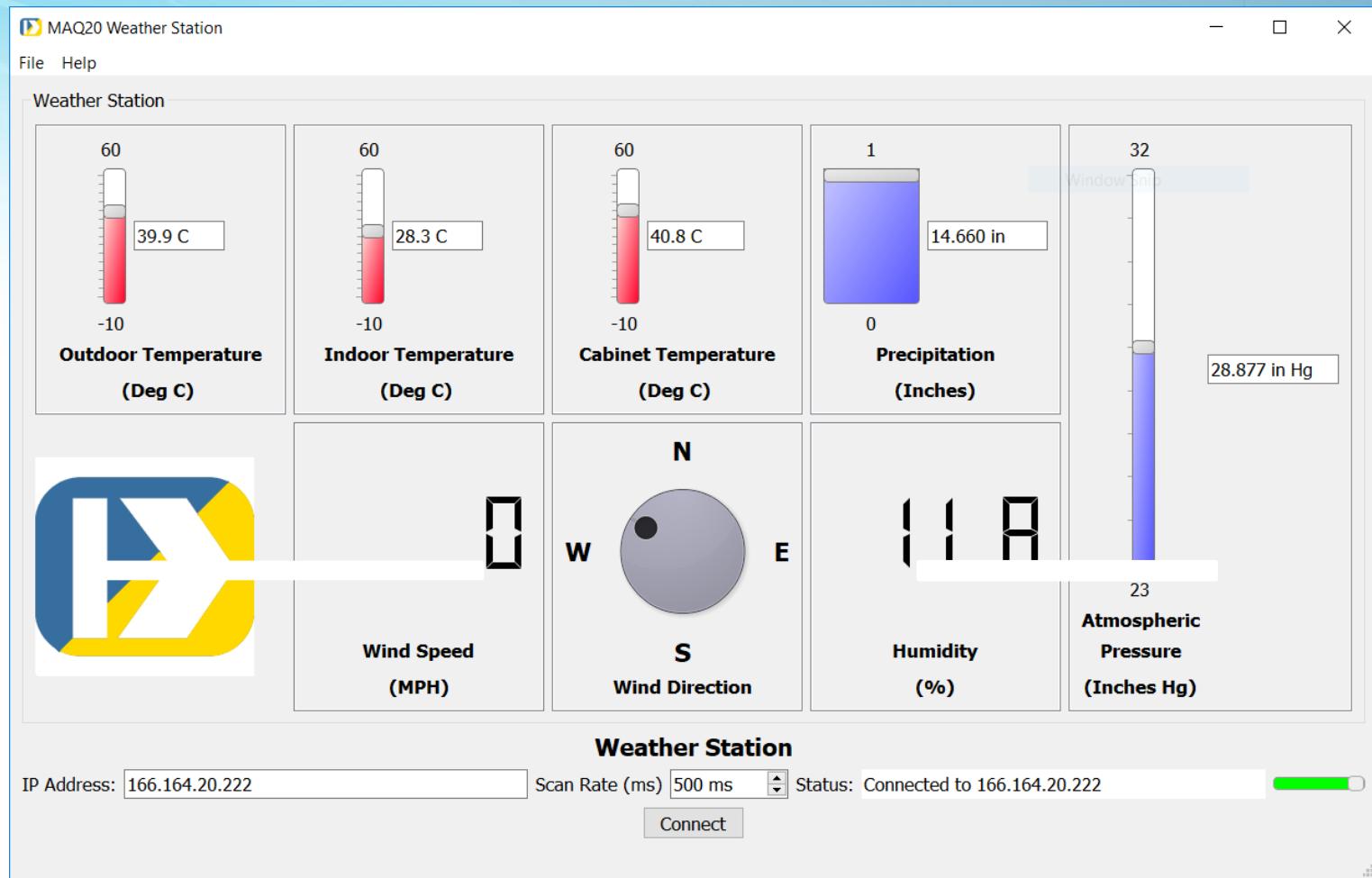
Custom User Applications Python API



- Provides libraries to access data and special functions of the MAQ®20
- Simple Command Line programs to full featured GUI Applications

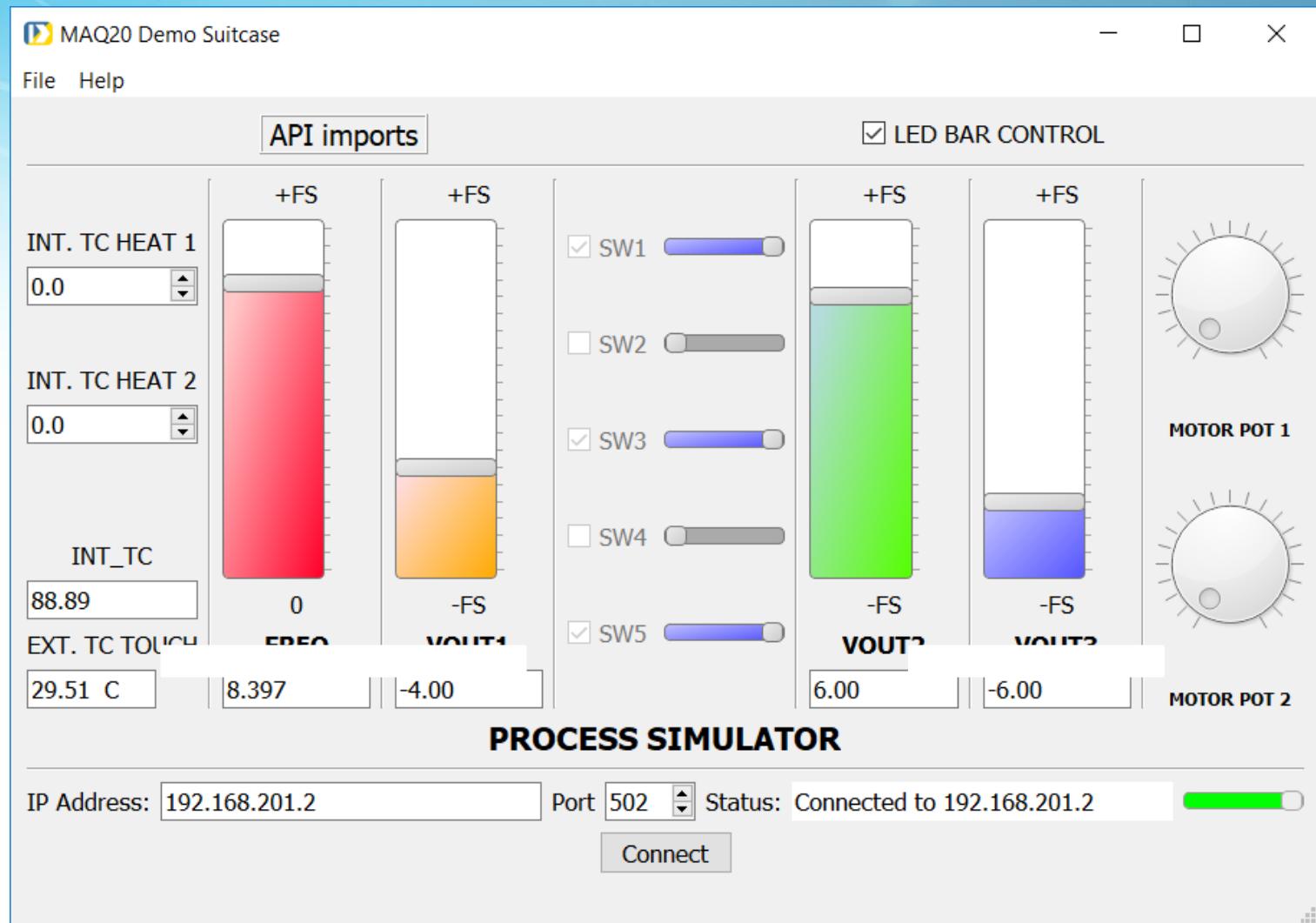


Python API connect to Weather Station



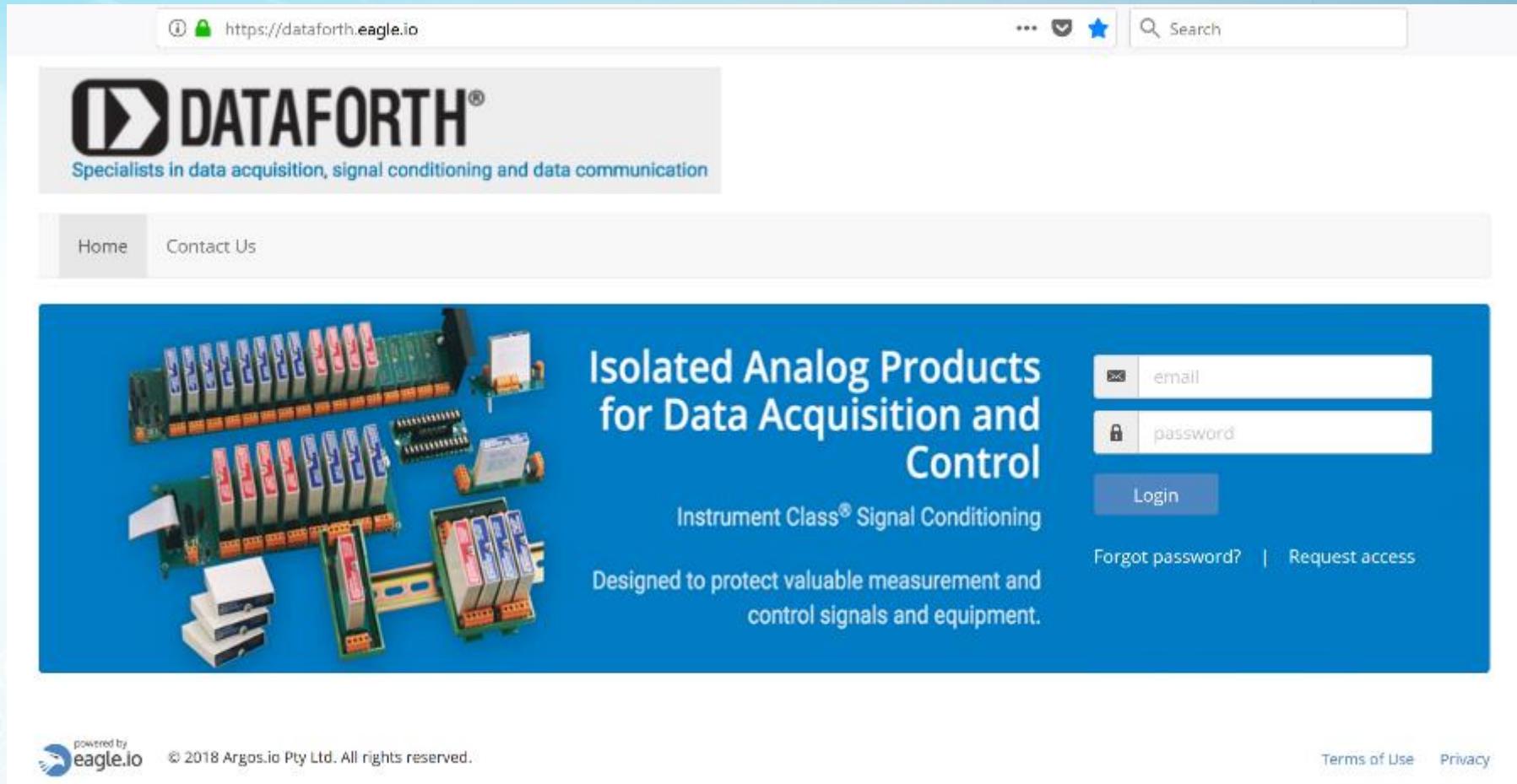


Python API connect to Demo Suitcase





MAQ®20 3rd party dashboard: Eagle.io



The screenshot shows a web browser displaying a Dataforth product page on the eagle.io platform. The header includes the Dataforth logo and tagline, and a navigation bar with 'Home' and 'Contact Us'. The main content features a photograph of various Dataforth signal conditioning modules and a descriptive text block. On the right side, there is a login form with fields for 'email' and 'password', a 'Login' button, and links for 'Forgot password?' and 'Request access'. The footer contains the eagle.io logo and copyright information.

DATAFORTH®

Specialists in data acquisition, signal conditioning and data communication

Home Contact Us

Isolated Analog Products for Data Acquisition and Control

Instrument Class® Signal Conditioning

Designed to protect valuable measurement and control signals and equipment.

powered by eagle.io © 2018 Argos.io Pty Ltd. All rights reserved.

Terms of Use Privacy



MAQ®20 3rd party dashboard: Eagle.io

The screenshot shows a monitoring dashboard for the Arkansas River. The top navigation bar includes the Dataforth logo, user email (ghaubner@dataforth.com), and links for Alarms, Parameters, Map, List, Chart, Events, and Dash.

The left sidebar shows 'WORKSPACES' with options like Templates, My Workspace (selected), Sample Location, Tucson Weather Station (1 notification), and Weather Station Test.

The main area features a map of the Arkansas River with a purple marker indicating the sample location. To the right of the map are two large data cards:

- Level:** 3.31 ft, NORMAL, ↓ 1% (2018-06-10 11:46:00)
- Discharge:** 1030 cu ft/s, NORMAL, ↓ 2% (2018-06-10 11:46:00)

A section titled "0 Alarms in 7 days" includes a circular gauge for pH, ranging from 6 to 8.5, with 8.2 marked as NORMAL (2018-06-10 11:45:00).

Below these cards is a "Historic Chart" showing Temperature (°C) and pH over time (28 May - 4 Jun). The chart displays fluctuating data points for both parameters.

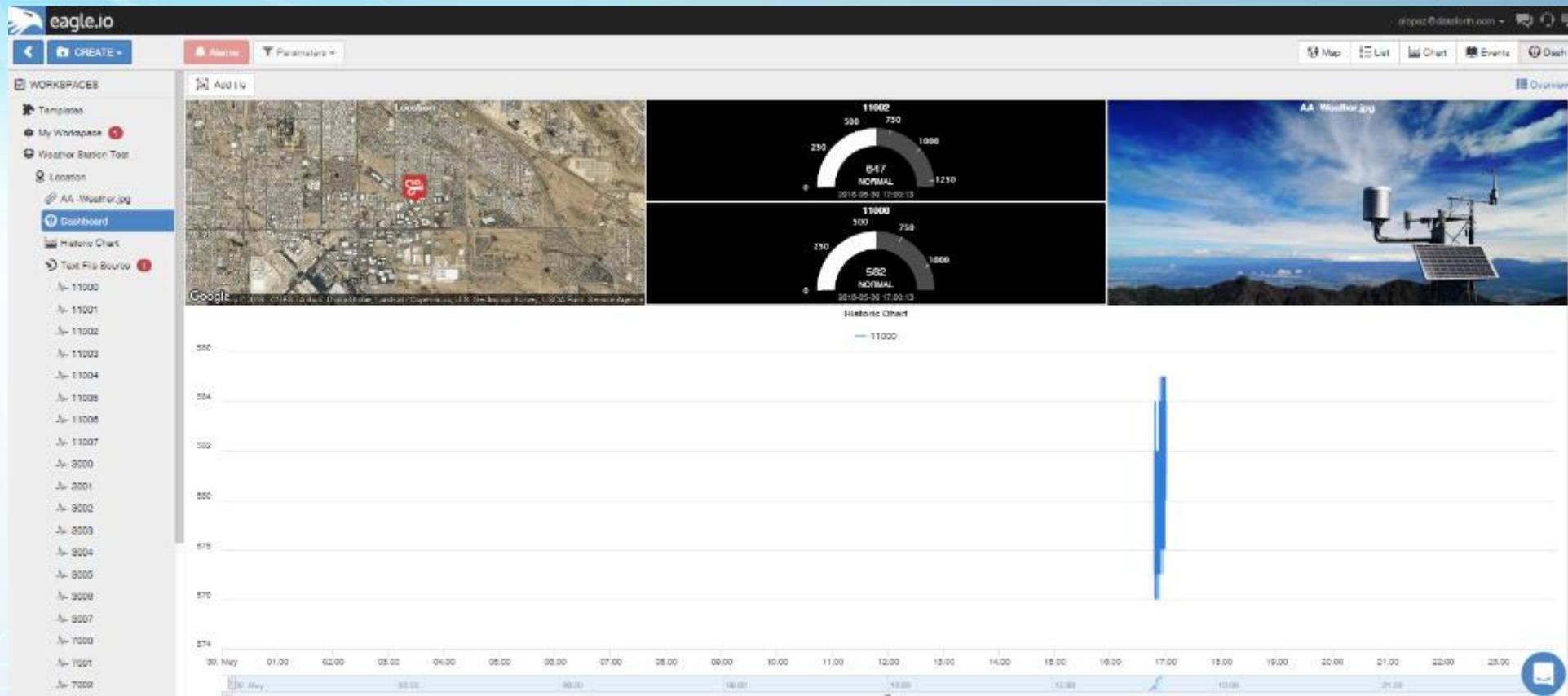
On the right side, there is a "Historic table" showing historical data for Time, pH, Conductivity (µS), Dissolved Oxygen (mg/l), and other parameters like pH, Conductivity, Temperature, Level, and Discharge. The table includes rows for various dates and times, such as 2018-06-10 11:45:00, 2018-06-10 11:30:00, etc.

A green "Value list" section on the far right lists current values for Dissolved Oxygen, pH, Conductivity, Temperature, Level, and Discharge, all marked as NORMAL.

Example of Monitoring Dashboard



MAQ®20 3rd party dashboard: Eagle.io



Dataforth Weather Station Dashboard



Application Examples

Challenge:

Maximize burn time of wood logs to achieve clean exhaust and minimal waste



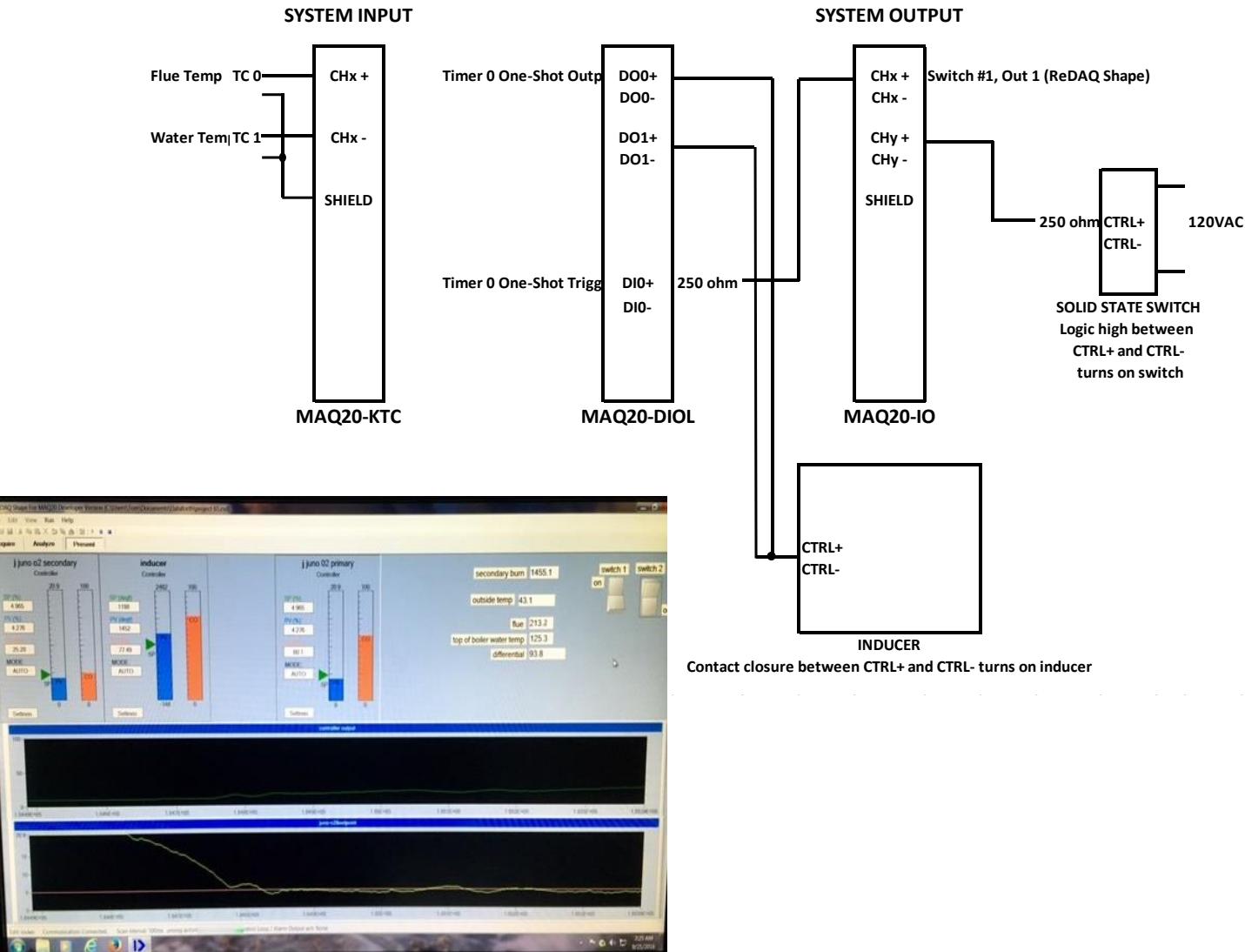
See also application note: Introduction to PID control

Solution:

- * Communication Module
- * Thermocouple Module
- * Discrete I/O Module
- * Current Output Module
- * Solid State Switch
- * ReDAQ® Shape Software

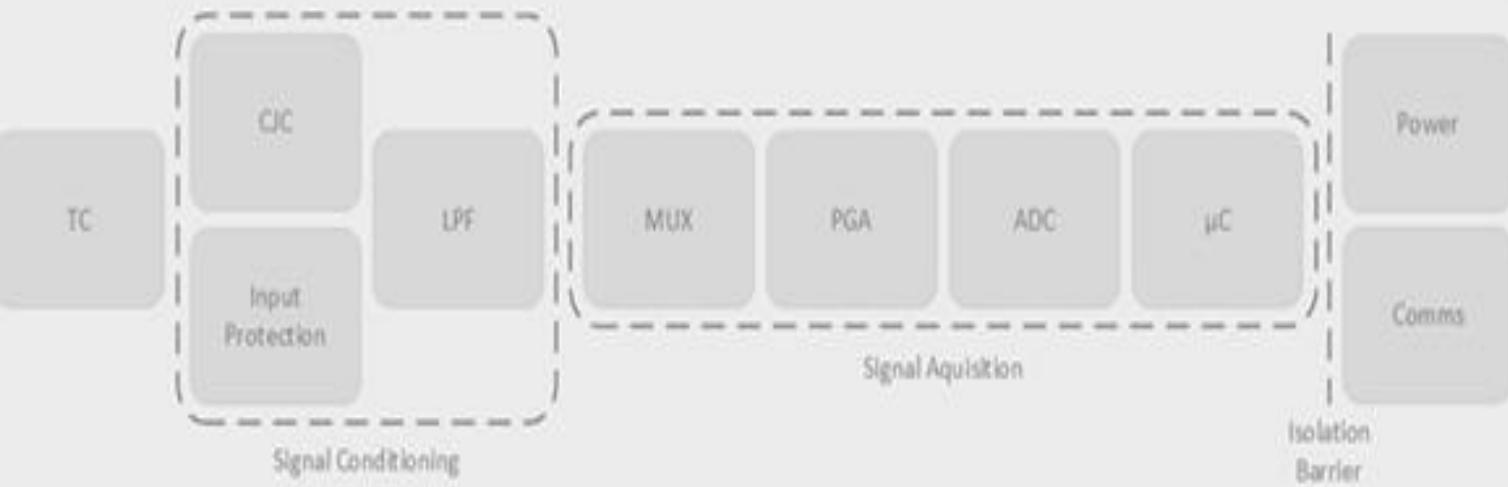
Important Features:

- * Embedded PID Loop
- * Solid-State-Relay control





MAQ20 Thermocouple Data Acquisition System



Challenge:

Measure the effect of ambient temperatures on the thermal behavior of an optical telescope using a 1-meter aperture tube which resembles the material and structural properties of the telescope.



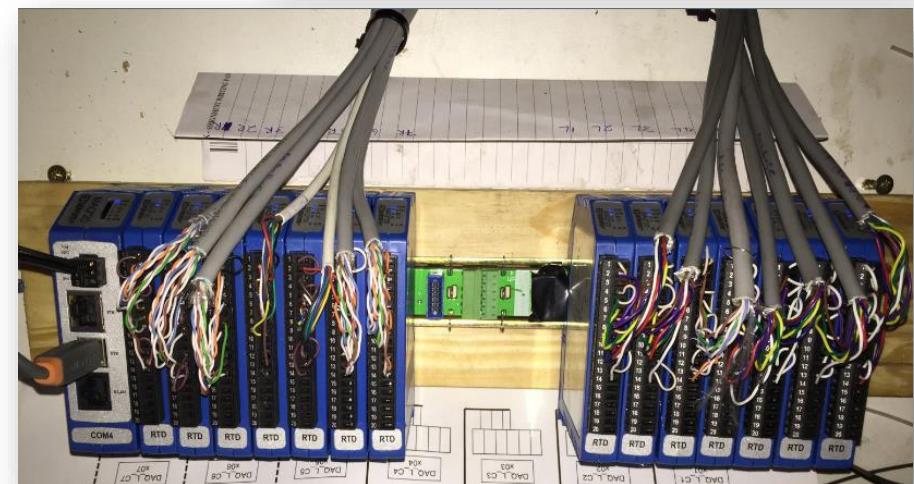
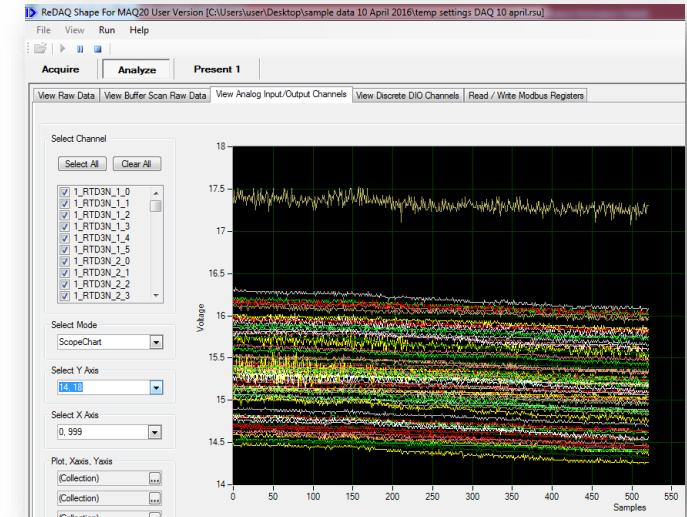
Application Example: Telescope Tube Experiments Measurements Errors

Solution:

- * Communication Module
- * RTD Input Modules
- * ReDAQ® Shape Software

Important Features:

- * Ease of use
- * High accuracy
- * High channel count
- * Channel-to-channel isolation



Challenge:

Monitoring the position and movement of columns on the front and rear of an historic building during a restoration of the foundation.



Solution:

- * Bridge Input Module
- * Voltage Input Module
- * IP Emotion SW
- * Sensors

Important Features:

- * Low cost
- * Rugged
- * High Accuracy
- * Easy installation
- * High channel count

Displacement Sensors - Group 1



LDT01



LDT14

Displacement Sensors - Group 2



LDT015



LDT28

Force Sensors - Group 1



FS01



FS08

Centralized Data Acquisition System with Input Signal Conditioning



PC with IP Emotion & MS-Office, for Data Acquisition/Storage and Graphical Data Display





MAQ20-COM4



Challenge:

Controlling valves to channel the exhausts of a vehicle into different capture-vessels for later analysis.

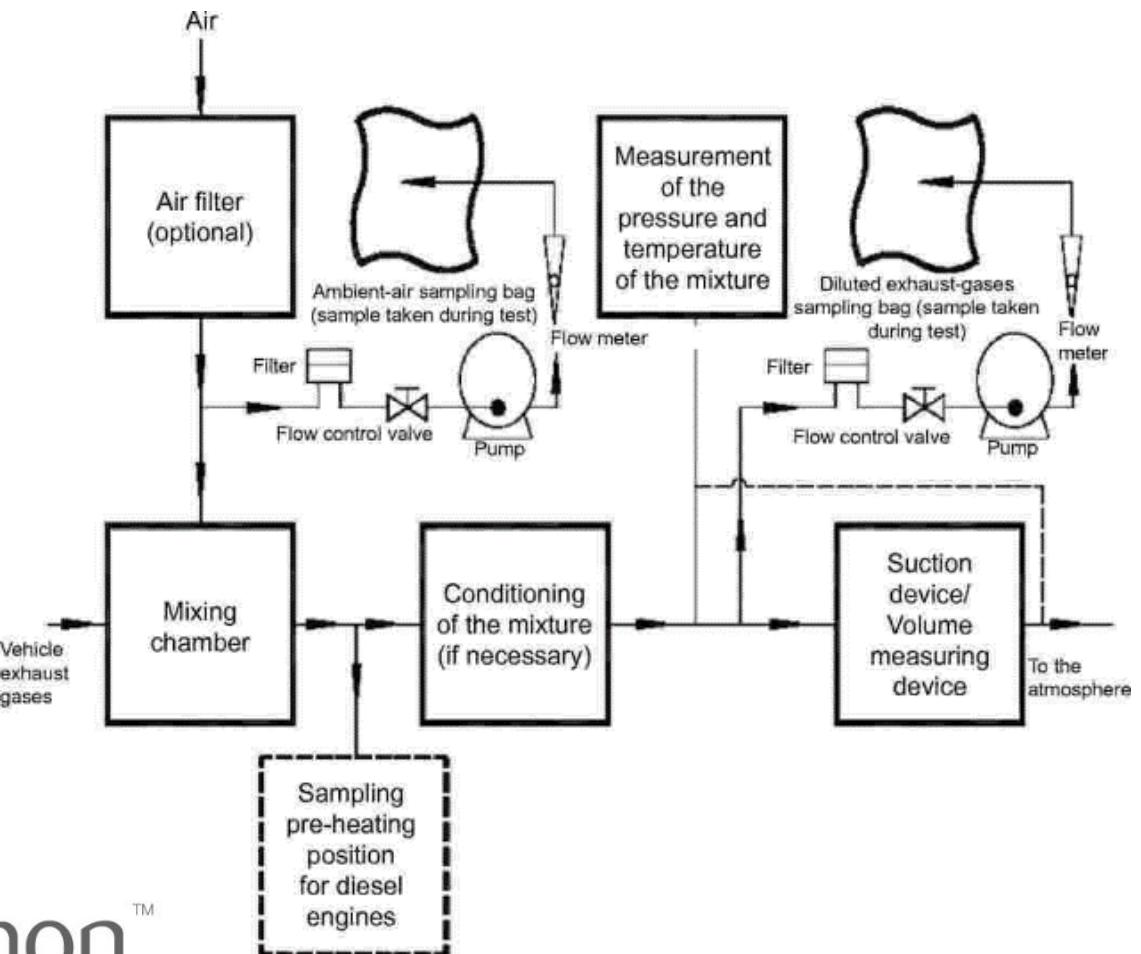


Solution:

- * Communication Module
- * Relay Output Module
- * Voltage Input Module

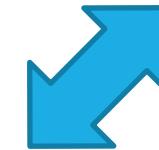
Important Features:

- * 20 SPST latching Relays
- * Python API
- * Small footprint
- * Isolation



Challenge:

To remotely control / monitor and transfer system critical signals / data from offshore to land.

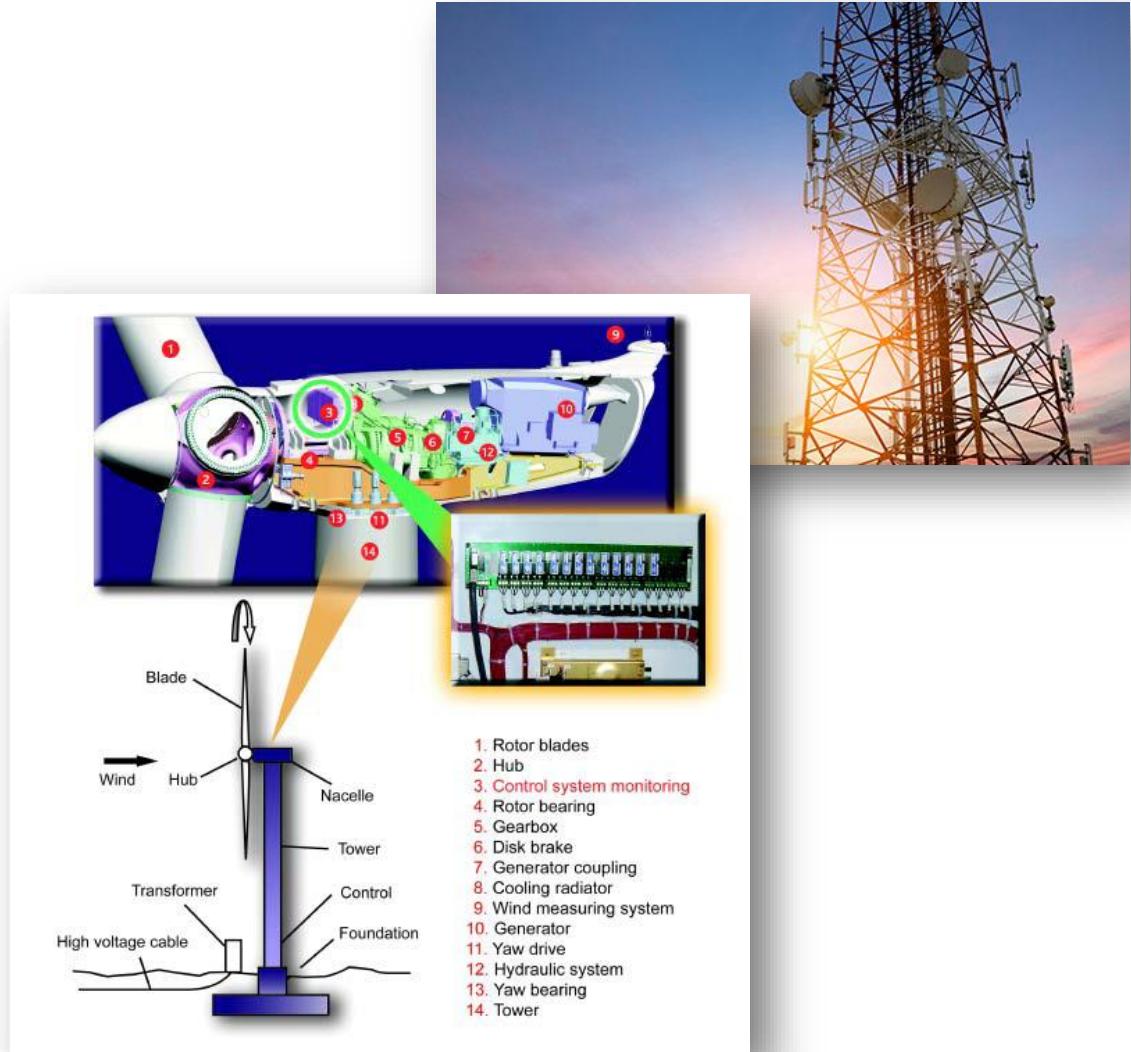


Solution:

- * Communication Module
- * Voltage Input Module
- * Current Input Module
- * RTD Input module
- * ReDAQ® Shape Software

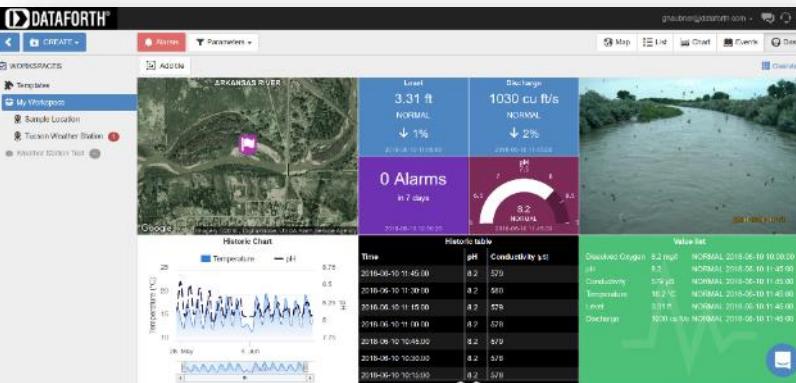
Important Features:

- * Remote connectivity
- * FTP file transfer
- * Wide temp range
- * High channel count



Challenge:

Monitor liquid levels at rural tanks and feed data into a cloud-based dashboard



Solution:

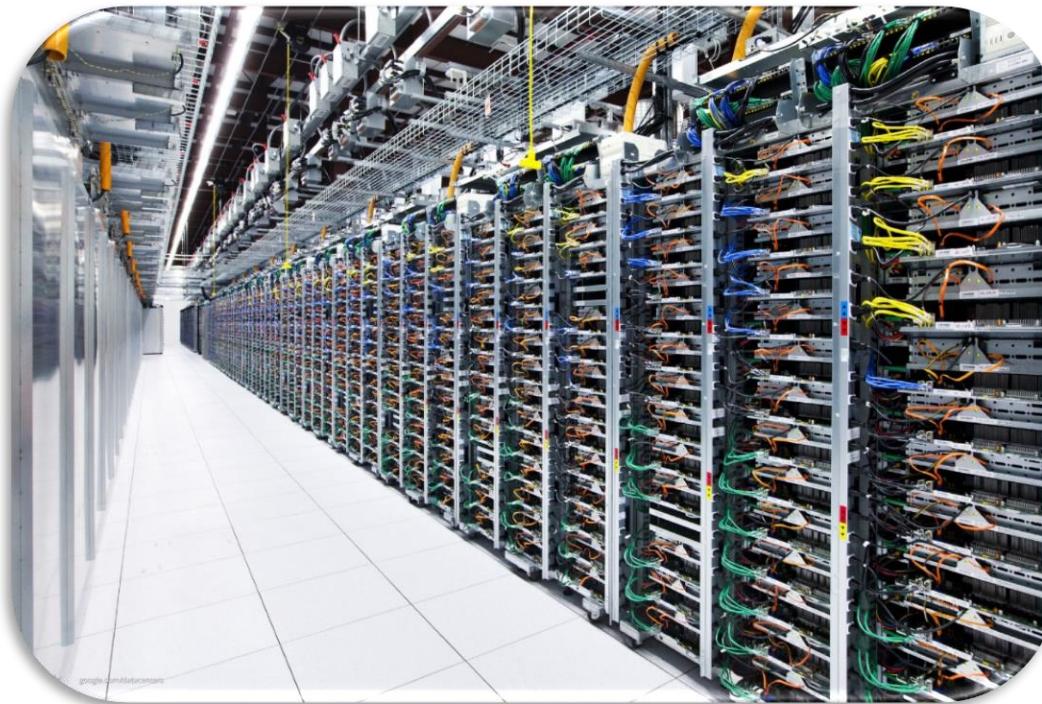
- * MAQ20
- * Python API
- * 3rd party dashboards

Important Features:

- * FTP file transfer
- * Cloud connection

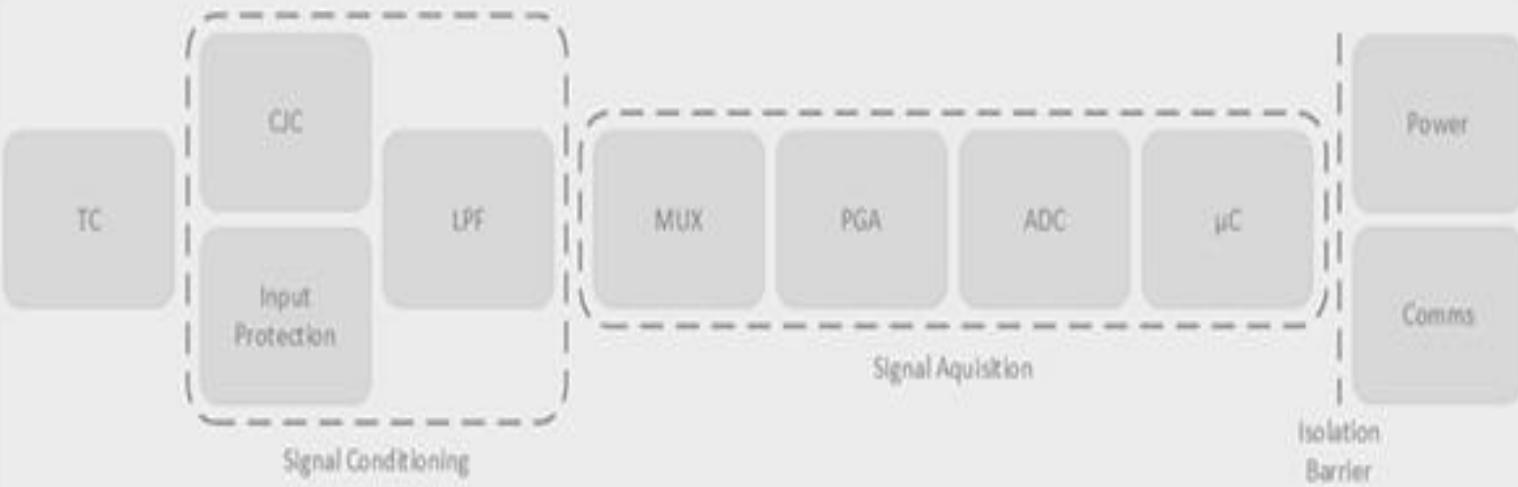


- Hard Drive
- Solid State Drive
- Micro SD



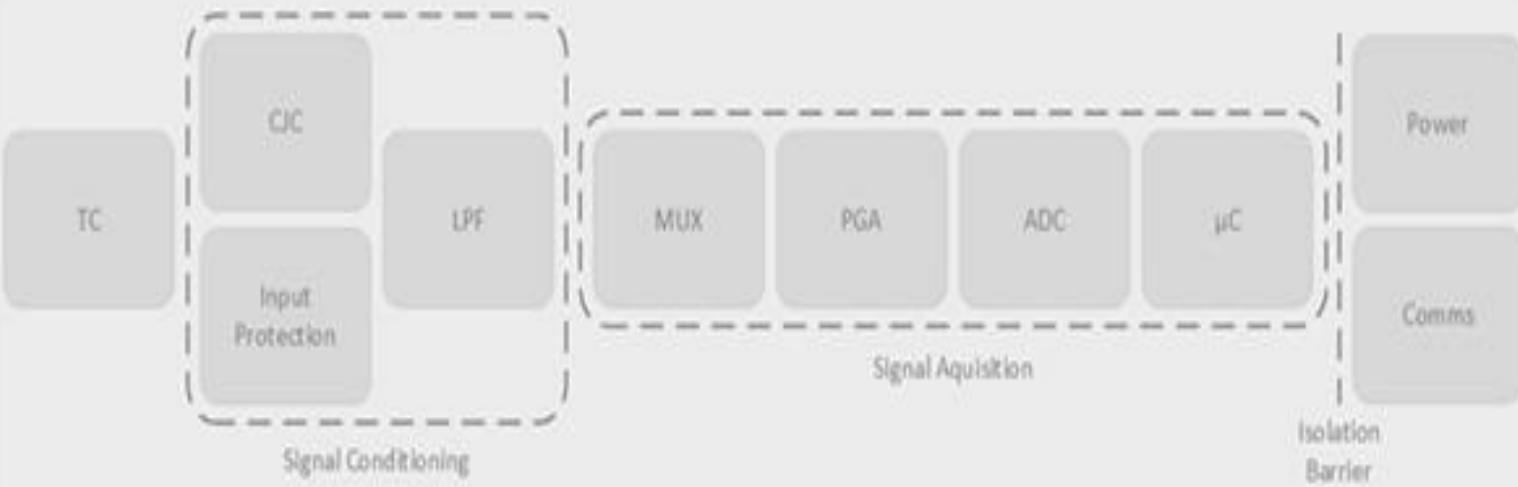


MAQ20 Strain Gauge Data Logger





MAQ®20 Voltage Data Logger





Playtime



- Modbus, an Internet Routable Protocol (Port 502)
- GSM/3G/4G Routers
- Embedded PC
- Connect legacy machinery to acquire data
- System monitoring
- Pre-emptive Maintenance
- Remote Telemetry

MAQ20 DAQ SYSTEM | Build Your System From 28 Available Modules

MAQ20-xTC

- Differential Input Chs.
- J, K, T, R and S Thermocouples

MAQ20-RTD

- 6 Input Channels for 3-Wire Sensors
- 5 Input Channels for 4-Wire Sensors
- Pt100, Ni120 RTDs, & Potentiometers

MAQ20-COMx

- Communicate using Ethernet, USB, RS-232
- Up to 4 Simultaneous Socket Connections
- Modbus TCP or RTU Protocols
- Save Acquired Data Locally on SD Card

MAQ20-VO

- 8 Isolated Output Channels
- Configurable for Range and Programmable Output
- User-Defined Default Output and Output Waveform
- 300VRms Channel-to-Channel Isolation

Industrial Control

• ±0.035% Accuracy at 120°C

• Interface to Analog I/O Modules and DIO Protection

• 1.500VRms Input Protection against Continuous Overload

• Each Channel Individually Configurable for Range, Alarms, Averaging

and DC Input Power

MAQ20-BRDG1

- 4 Input Channels for 3-Wire or 4-Wire Sensors
- Interface to Full, Half and Quarter Sensors
- Burst Mode for Fast Events
- Programmable Sampling Rate, Resolution, Bandwidth, Excitation, Shunt Calibration

MAQ20-DIOL

- User-Defined Default Output Waveform
- 2 High Performance Digital Functions
- 300VRms Channel-to-Channel Isolation
- Continuous Overload and Reverse Protection

Software

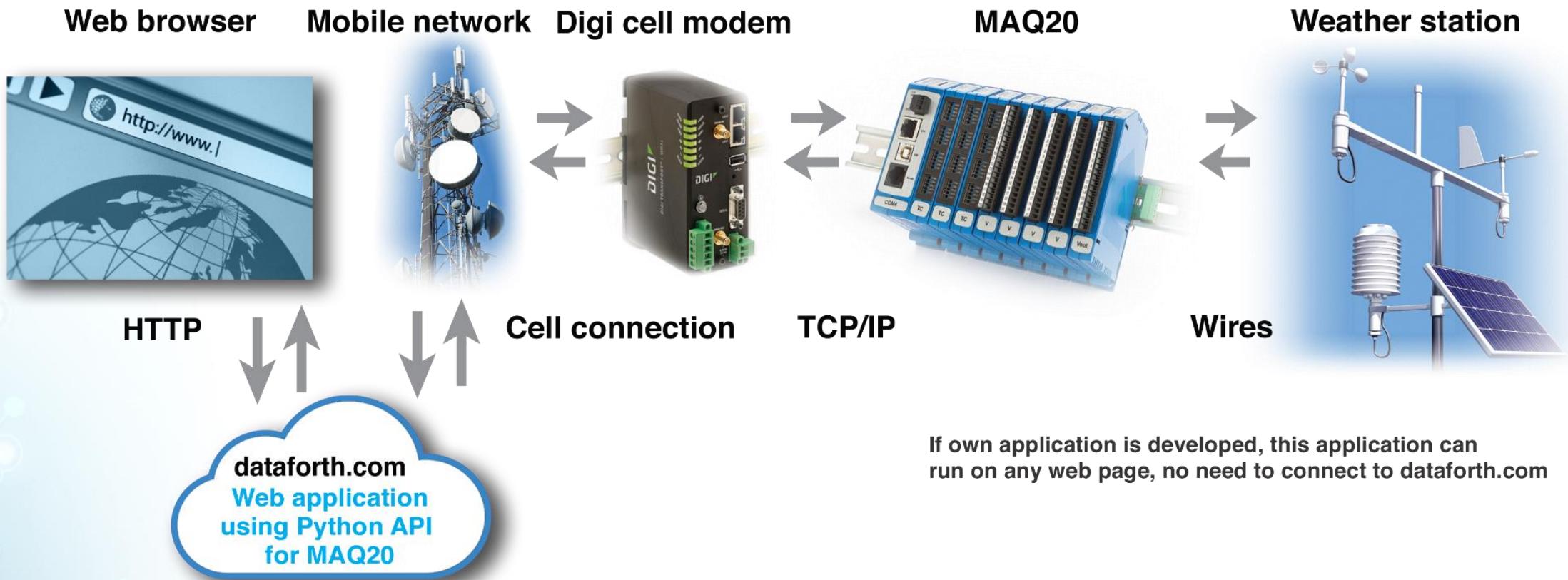
- ReDAQ-Shape
- IPEMotion
- PyDAQ
- LADVIEW VIs
- OPC Server

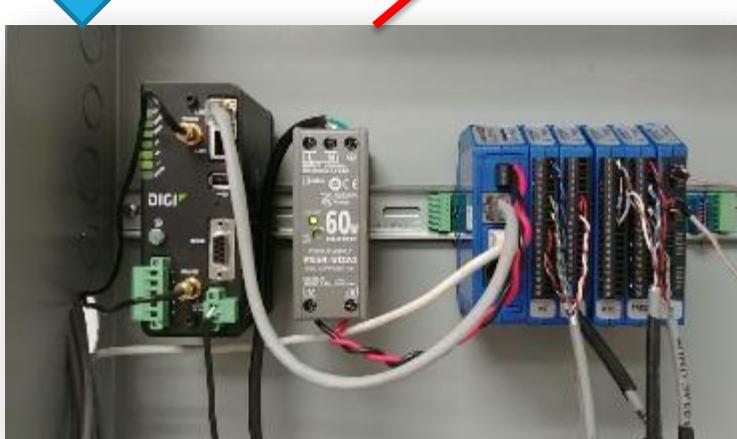
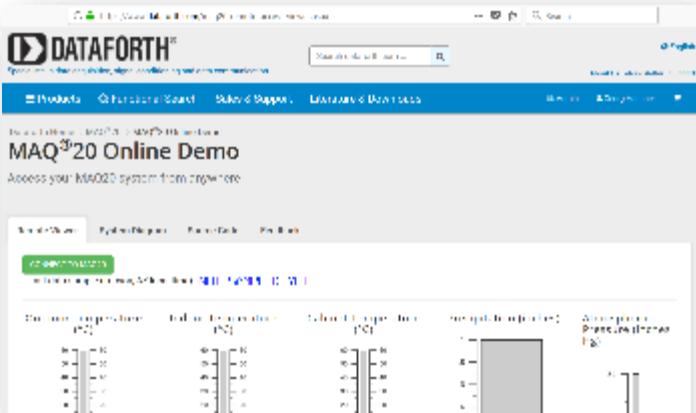




Your Demo: Strain Gauge – Temperature - Counter

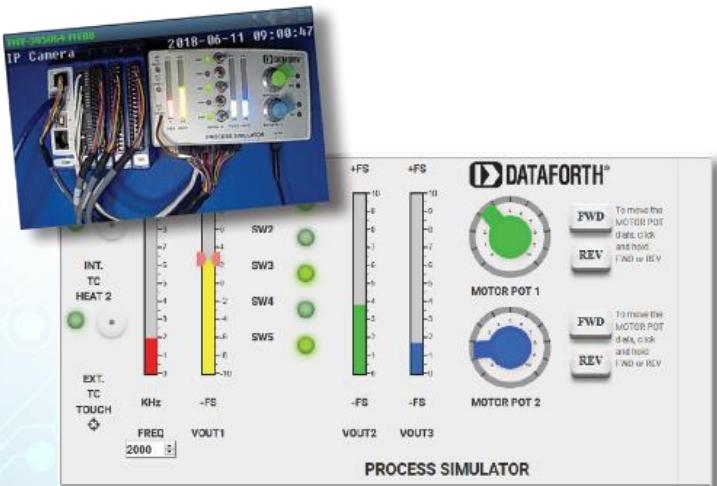




 python™



Your Demo: Remote Connectivity & Control



HTTP

dataforth.com
Web application
using Python API
for MAQ20



TCP/IP



Wires

Process Simulator

Start Building a New System Now

Choose from one of the following platforms to begin building your system.

MAQ®20

MAQ®20

- Lowest Cost per Channel
- Up to 384 chn in 19" rack
- 32 PID Loops per System
- Modbus Standalone Server
- FTP server
- Multiple Application Software Options

8B ISOlynx® SLX300

8B isoLynx® SLX300

- Miniature Multi-function System
- Isolated 12 Ai & 4 Ao & 8 Special Di/o
- Panel Mount or 1U Chassis
- Turn-key Software
- Modbus TCP/IP & RTU

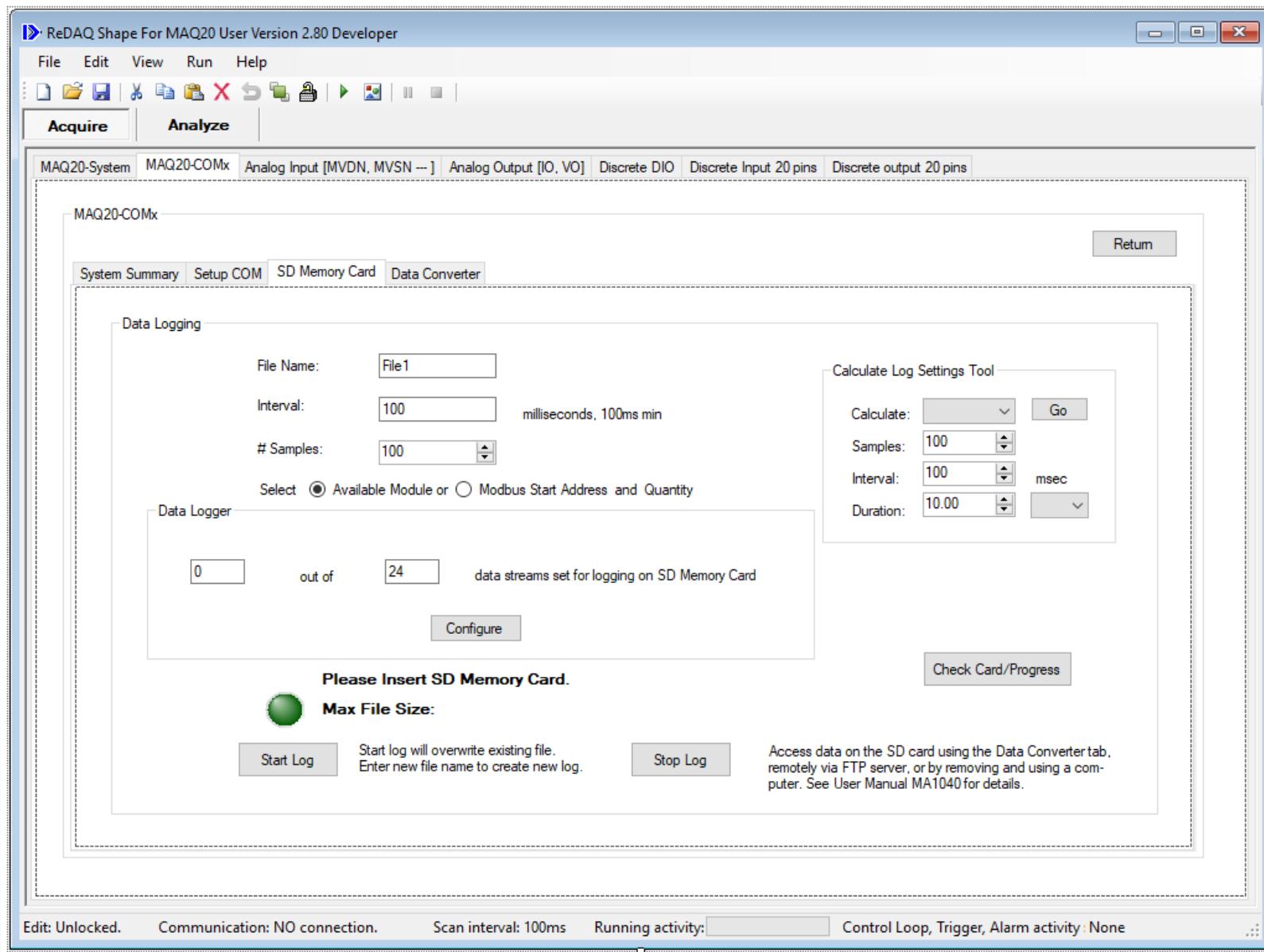
5B ISOlynx® SLX200

5B isoLynx® SLX200

- Up to 60 isolated Ai/o chns
- Up to 128 Isolated Di/o chns
- LabVIEW VI's & C++ & VB Modbus Examples



ReDAQ® Expanded Datalogging up to 24 start addresses





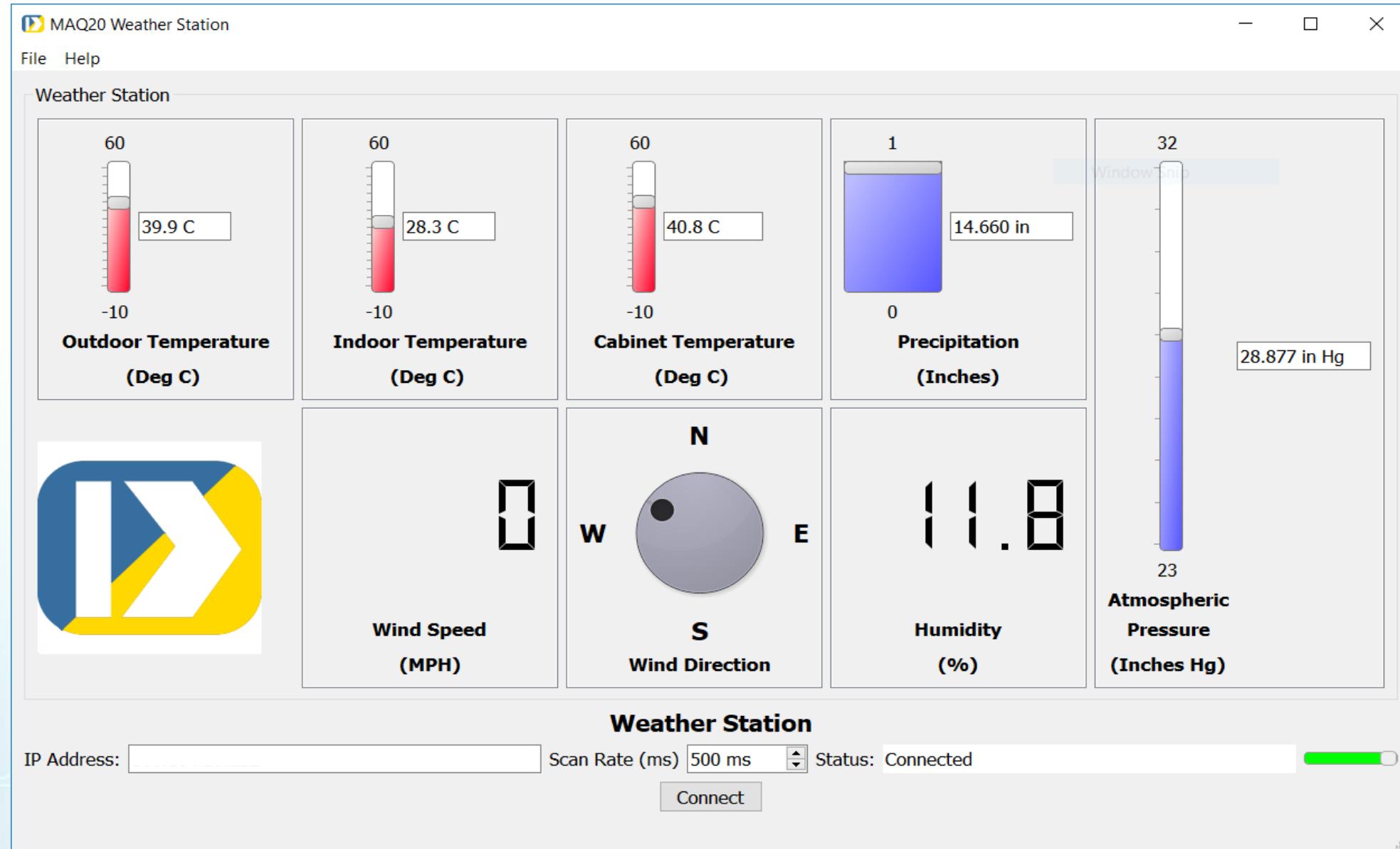
ReDAQ® Expanded Datalogging up to 24 start addresses

Logged Data Streams Setting

System: System 1, 8 connected modules, 40 Input and 44 Output channels

Module	Address	Qty
1	3000	8
2	3000	8
3	3000	8
4	3000	8
5	3000	8
6	3000	8
7	3000	8
8	3000	8
9	3000	8
10	3000	8
11	3000	8
12	3000	8
13	3000	8
14	3000	8
15	3000	8
16	3000	8
17	3000	8
18	3000	8
19	3000	8
20	3000	8
21	3000	8
22	3000	8
23	3000	8
24	3000	8

Save

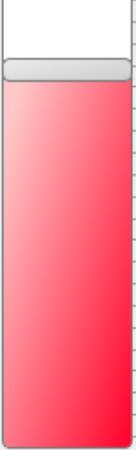
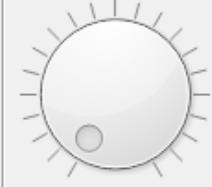
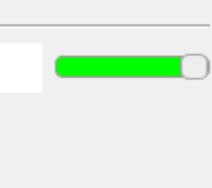


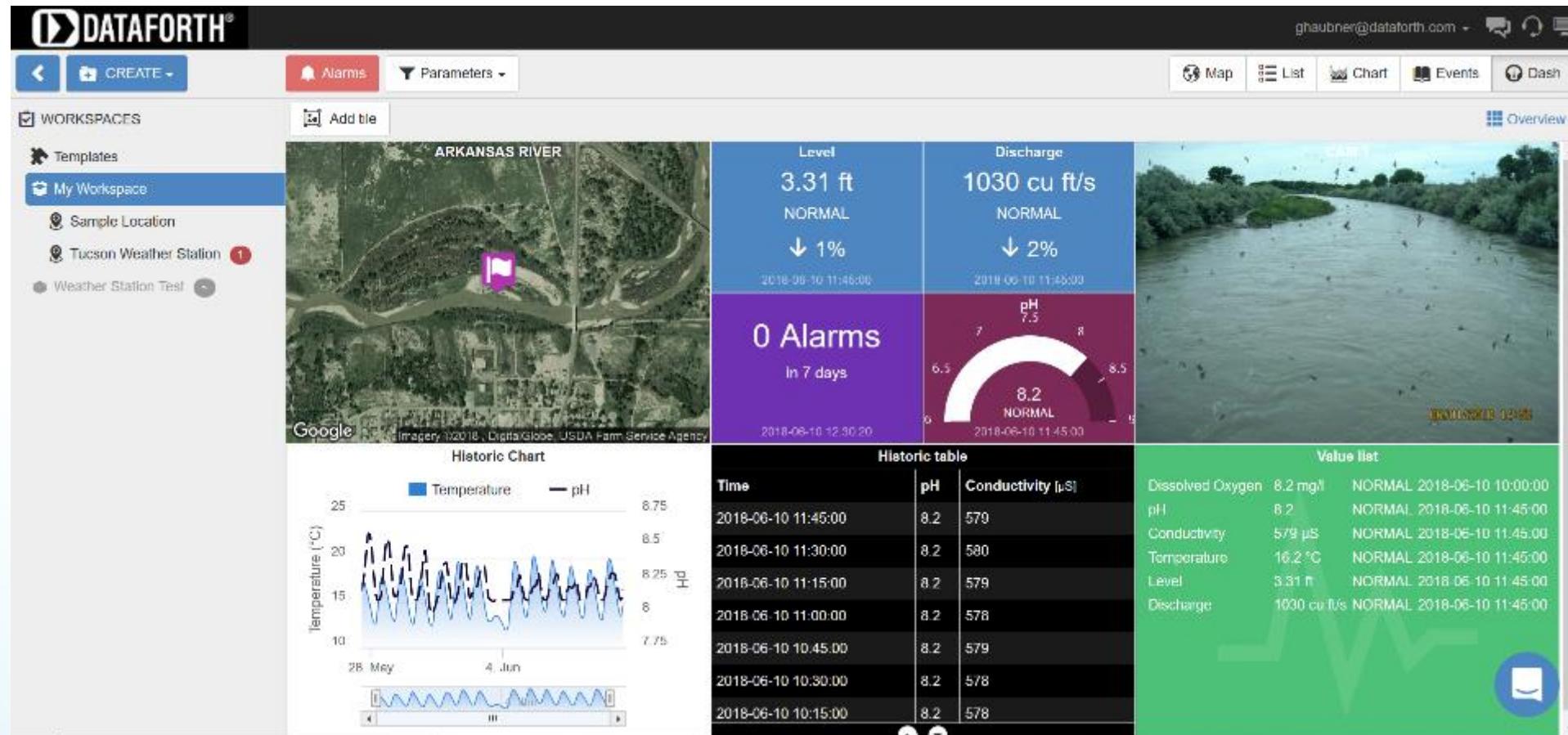
MAQ20 Demo Suitcase

File Help

API imports

LED BAR CONTROL

INT. TC HEAT 1 0.0	+FS 	+FS 	<input checked="" type="checkbox"/> SW1 	+FS 	+FS 	
INT. TC HEAT 2 0.0			<input type="checkbox"/> SW2 			
INT_TC 88.89	0 FREQ	-FS VOUT1	<input checked="" type="checkbox"/> SW3 		-FS VOUT2	
EXT. TC TOUCH 29.51 C	8.397	-4.00	<input type="checkbox"/> SW4 	6.00	-6.00	
PROCESS SIMULATOR						
IP Address:	192.168.201.2	Port	502	Status:	Connected to 192.168.201.2	
Connect						



Example of Monitoring Dashboard



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[Signal Conditioning](#)

5B Series
3-Way Isolated Modules

7B Series
2-Way Isolated Modules

SensorLex® 8B Series
Analog to Serial Isolated Modules

DSCA Series
DIN Rail Mount Isolators

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SCMD Series
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DSCL Series

[Data Acquisition & Control](#)

Modular Data Acquisition System
MAQ®20

8B isoLynx® System
SLX300

5B isoLynx® System
SLX200

[Data Communications](#)

Isolated DIN Mount
RS-232/RS-485 converters / line drivers

Isolated Modular
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ReDAQ® Shape Graphical Software for MAQ®20

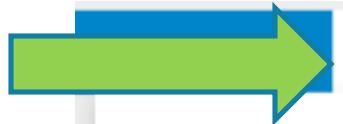
ReDAQ® Shape Graphical Software for 8B SLX300

Python API for MAQ®20

IPEmotion Graphical Software for MAQ®20

DSCP20/SCTP20/DSCP81 Configuration Software

9B Data Acquisition and Control Utility Software



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 [Signal Conditioning - Input Sensors](#)

> Accelerometer > Thermocouple
> Frequency > RTD
> True RMS > Strain Gage
> Matched Pair > Voltage
> Digital > Current
> Thermistor > Potentiometer
> User Programmable

 [Signal Conditioning - Output Sensors](#)

> Voltage
> Current
> Digital

 [Data Acquisition](#)

> MAQ®20
> SLX200
> SLX300
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Contact us for a wide range of technical support and assistance regarding your application.

> Toll Free: 800-444-7644
> Online Technical Support
> sales@dataforth.com



Products Literature & Downloads Admin Georg Haubner 

Literature

- > Corporate Brochure
- > Product Catalog

Downloads

- > User Manuals / Configuration Guides
- > CAD Models
- > Software

Videos

Dataforth Video Library
Browse our library of Video tutorials.

Application Notes

Featured Application Notes ...

Cross Point Switch using MAQ20-DORLY20 Module
The MAQ20 relay module, MAQ20-DORLY20, contains 20 relays that may be wired as a 4x5 cross point switch and find valuable use in many applications.

Harmonics and Utility Costs
The objective of this Application Note is to briefly show how these types of harmonics in a customer's facility affect utility-measured quantities and costs.

RMS Revisited
This Application Note will revisit the definition of RMS, show RMS values for various time functions, and explore some interesting RMS measurement issues.

[see all application notes](#)

Tech Notes

Recent Tech Notes ...

- > Faraday's Law of Induction
- > Power Supply Isolation
- > When to Use Closed-loop Control Instead of Open-loop Control
- > Aliasing, Anti-aliasing – What is that anyway?
- > Made in the USA
- > MAQ20 Data Acquisition System Features

[see all Tech Notes](#)

Press & Product Releases

- > MAQ20 Module Receives Honorable Mention in 2018 Engineers' Choice Awards
- > MAQ®20 Discrete Relay Output Module
- > MAQ®20-DODC20SK Award Finalist
- > Dataforth Announces ISO9001:2015 Quality Management Certification
- > Dataforth MAQ20 System Offers Intuitive Interface with Python API

[see all Press & Product Releases](#)

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Technical Support

Contact us for a wide range of technical assistance regarding your application. Use our toll free number and online request form.

FAQ

View/Search our repository of frequently asked questions.

Obtain an RMA

Request returns, repairs, exchanges and credits with our online RMA form.

Online Services

Test Data Sheets

Locate factory test data for a specific Dataforth module using a serial number lookup.

Open a Credit Account

Online application to request a line of credit with Dataforth.

Become a VAR

Become a VAR for our Signal Conditioning and Data Acquisition products.



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Dataforth Home > Test Data Reports

Test Data Reports

Search for Test Report Datasheets by Serial Number

Use this tool to locate the factory test data for a specific Dataforth module. The test data report will be similar to [this example](#).

* Enter the Serial Number of the module to retrieve the test report data sheet.

SEARCH

Availability:

Test Data Reports for the following product families are available online.

- SCM5Bxx-xx
- 8Bxx-xx
- DSCAx-xx

Datasheets for products more than 5 years old may not be online. Contact the factory to obtain datasheet reprints.

Please contact the factory to obtain Test Data Reports for the following product families:

- SCM7B
- DSCT
- SCMVAS

Related Topics

-  [Online RMA Procedure](#)
-  [Technical Support Services](#)
-  [User Manuals and Configuration Guides](#)

TEST DATA SHEET

Date: 08-30-2012
Model: SCM5B31-02
SN: 81974-1

ACCURACY TEST

Vin (V)	Calculated Vout (V)	Measured Vout (V)*	Error (%)	Status
-5.000	-5.000	-5.000	+0.000	PASS
-2.499	-2.499	-2.500	-0.005	PASS
-0.000	-0.000	+0.000	+0.002	PASS
+2.500	+2.500	+2.501	+0.006	PASS
+5.000	+5.000	+5.002	+0.012	PASS

FINAL TEST RESULTS

Parameter	Measured Value	Specification	Status
Supply Current, Nom	15.1 mA	< 30 mA	PASS
Output Resistance	19 ohms	< 55 ohms	PASS
Linearity	0.004 %	+/- .03 %	PASS
Accuracy	0.012 %	+/- .08 %	PASS
Supply Sensitivity	155 uV/%	+/- 600 uV/%	PASS
Frequency Response	52.2 dB	61+/-16 dB	PASS
Step Response	99.9 %	85 to 110 %	PASS
Output Noise	103 uVrms	< 400 uVrms	PASS
240 VAC Withstand Hi-Pot			PASS

Check List

EXAMPLE

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<input type="checkbox"/> Signal Conditioning 5B Series 3-Way Isolated Modules 7B Series 2-Way Isolated Modules SensorLex® 8B Series Analog to Serial Isolated Modules DSCA Series DIN Rail Mount Isolators SCM9B Series Analog to Serial Isolated Modules SCMD Series Isolated Digital I/O Modules	<input type="checkbox"/> 4-20mA Transmitters Loop Powered Two-Wire Transmitters DSCT Series User-Programmable Transmitters DSCP/SCTP Series DIN Rail Mount Loop Isolators DSCL Series	<input type="checkbox"/> Data Acquisition & Control Modular Data Acquisition System MAQ®20 8B IsoLynx® System SLX300 5B IsoLynx® System SLX200	 <input type="checkbox"/> Data C Isolated DIN Mount RS-232/RS-485 converters / line drivers Isolated Modular Modular converters / line drivers	<input type="checkbox"/> Software Complete software solutions and programming tools. ReDAQ® Shape Graphical Software for MAQ®20 ReDAQ® Shape Graphical Software for 8B SLX300 Python API for MAQ®20 IPEmotion Graphical Software for MAQ®20 DSCP20/SCTP20/DSCP81 Configuration Software 9B Data Acquisition and Control Utility Software
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Signal Conditioning

5B Series
3-Way Isolated Modules

7B Series
2-Way Isolated Modules

SensorLex® 8B Series
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DIN Rail Mount Isolators

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SCMD Series
Isolated Digital I/O Modules

4-20mA Transmitters

Loop Powered Two-Wire Transmitters
DSCT Series

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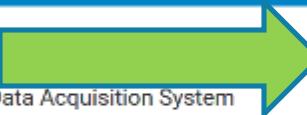
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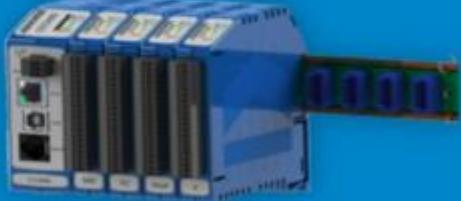


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Data Acquisition Software

-  ReDAQ® Shape for MAQ®20 >
-  ReDAQ® Shape for 8B >
-  Python API for MAQ20 >
-  IPEmotion for MAQ20 >
-  DSCP20/SCTP20 & DSCP81 >
-  9B Utility >



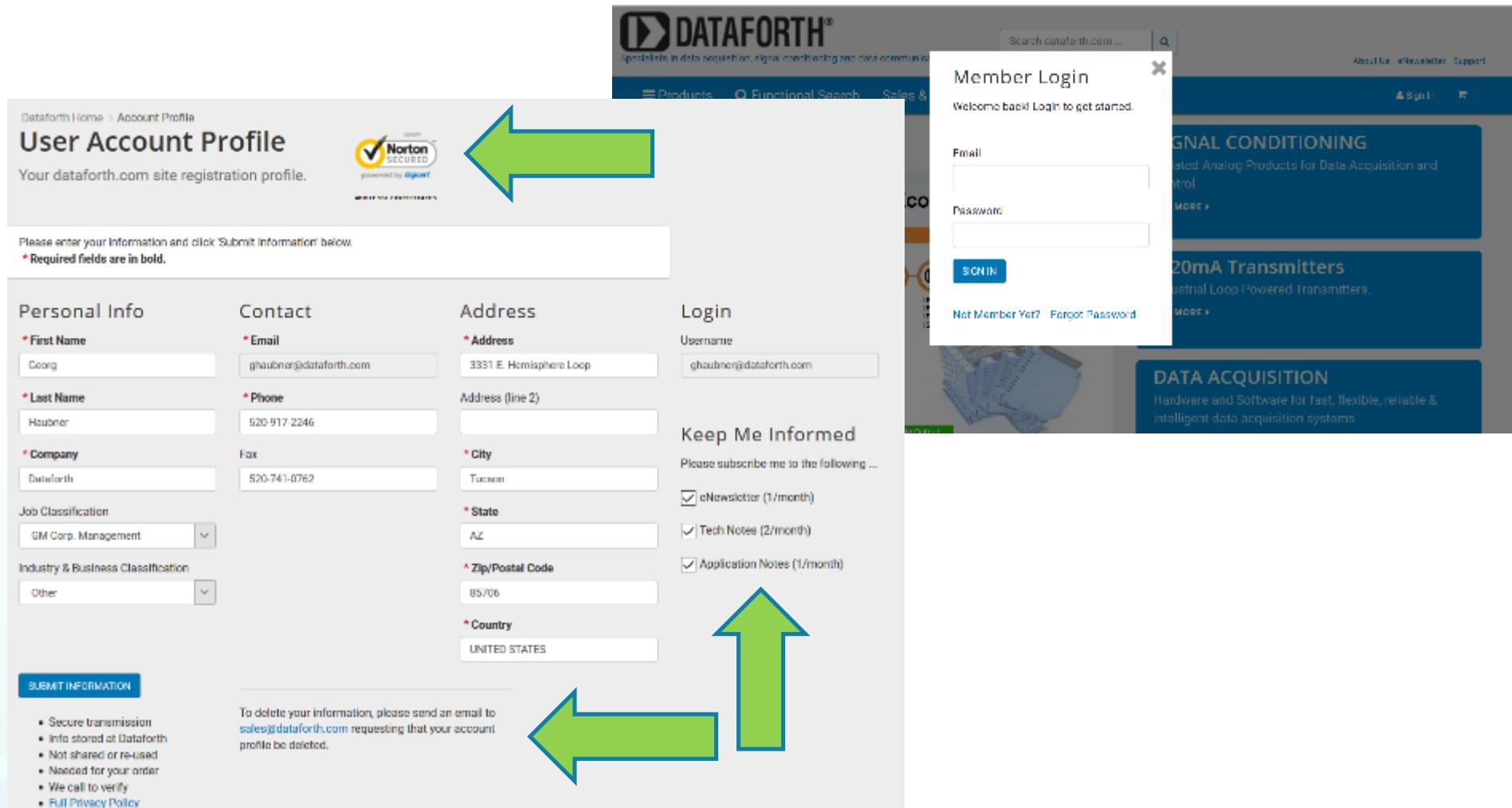
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IPEmotion, ReDAQ® Shape, OPC Server, LabVIEW™ VIs, DASYLab*



The screenshot shows two overlapping windows on a blue-themed website. The main window is titled "User Account Profile" and contains fields for "Personal Info", "Contact", "Address", and "Login". It includes a "SUBMIT INFORMATION" button and a note about account deletion. A green arrow points from the "Member Login" overlay to the "Email" field in the profile form. Another green arrow points from the "Email" field back up to the "Member Login" overlay.

User Account Profile

Your dataforth.com site registration profile.

Please enter your information and click "Submit Information" below.
* Required fields are in bold.

Personal Info		Contact	Address	Login
* First Name Georg	* Email ghaubner@dataforth.com	* Address 3331 E. Hemisphere Loop	Username ghaubner@dataforth.com	
* Last Name Haubner	* Phone 520 917 2246	Address (line 2)		
* Company Dataforth	Fax 520-741-0762	* City Tucson	Username ghaubner@dataforth.com	
Job Classification GM Corp. Management		* State AZ		
Industry & Business Classification Other		* Zip/Postal Code 85706		
		* Country UNITED STATES		

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To delete your information, please send an email to sales@dataforth.com requesting that your account profile be deleted.

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Member Login

Welcome back! [Login](#) to get started.

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Password

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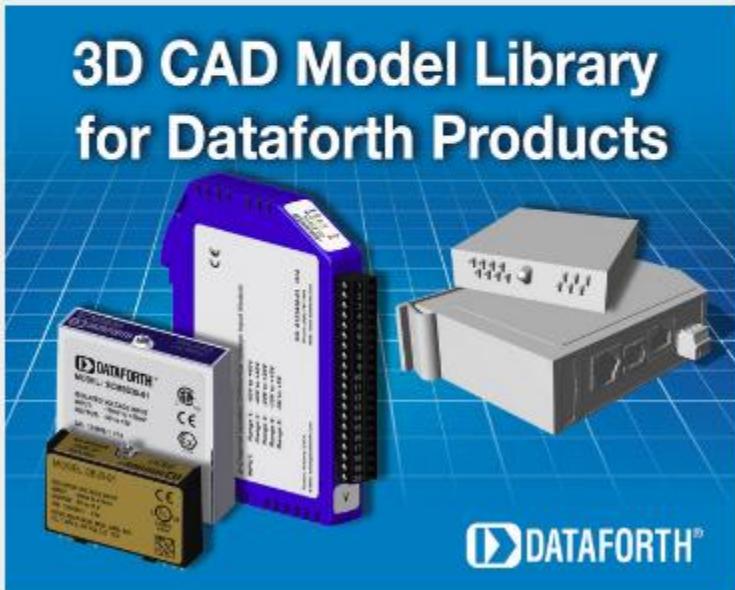
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Dataforth Home > 3D CAD Models

3D CAD Model Library

Utilize our library of 3D CAD models of Dataforth modules and accessories.

Dataforth has made available 3D CAD models, in STEP and STL format, for many of our product families. Follow the links on this page to find the download link for the model(s) you are interested in.



The banner features the text "3D CAD Model Library for Dataforth Products" in large white font. Below the text are three 3D CAD models of Dataforth modules: a yellow module labeled "MODEL 10-01", a purple module labeled "MODEL 10-02", and a grey module labeled "MODEL 10-03". The background is a blue grid pattern. The Dataforth logo is at the bottom right.

Families with CAD Models Available:

Signal Conditioning

- [SCM5B 3-Way Isolated Signal Conditioning](#)
- [SCM7B 2-Way Isolated Process Control Signal Conditioning](#)
- [SensorLex® 8B Miniature Isolated Analog Signal Conditioning](#)
- [DSCA High Performance DIN Isolated Signal Conditioners](#)
- [SCMD Isolated Digital I/O Modules](#)
- [SCMVAS Voltage Attenuator System for Analog Signal Conditioning](#)

Data Acquisition

- [MAQ®20 Modular Data Acquisition and Control System](#)
- [5B IsoLynx® SLX200 Data Acquisition System](#)
- [8B IsoLynx® SLX300 Data Acquisition System](#)

4-20mA Transmitters

- [DSCT Loop Powered Two-Wire Transmitters](#)

Data Communications

- [DCP DIN Rail Converters and Line Drivers](#)
- [LDM Isolated Modular Converters and Line Drivers](#)

Faraday's Law of Induction

Faraday's law of induction is a basic law of electromagnetism. When an electric circuit is moved in the neighborhood of a magnet, a current is induced in the circuit during the movement.

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Faraday's Law of Induction

Michael Faraday in 1831 and Joseph Henry in 1832 independently discovered electromagnetism.(3) Faraday published first and gets the honor of his name on the phenomenon.

Cross Point Switch using MAQ20-DORLY20 Module

The MAQ20 relay module, MAQ20-DORLY20, contains 20 relays that may be wired as a 4x5 cross point switch and find valuable use in many applications.

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Cross Point Switch using MAQ20-DORLY20 Module

The MAQ20 relay module, MAQ20-DORLY20, contains 20 relays that may be wired as a 4x5 cross point switch as shown in the figure 1 below. The numbers 1-40 represent the 40 spring terminals of the module. The labeled



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Personal visits or online meetings



Questions?

Thank You

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Arigato

Grazie

Nuwun

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Asante

Chokrane

Grazie

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Thank You