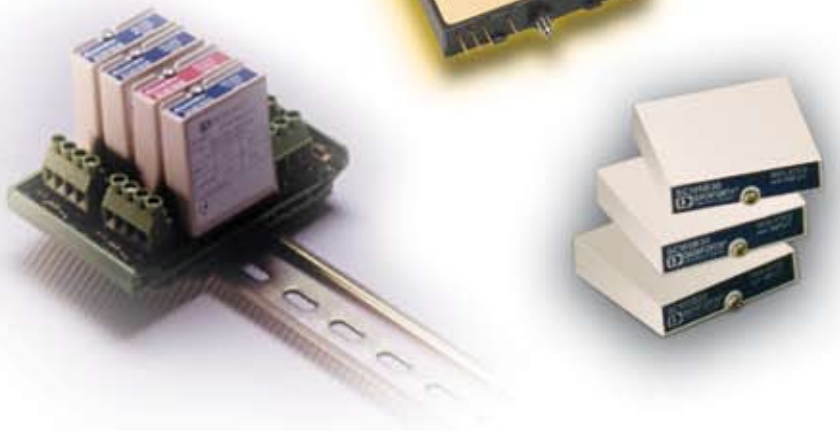


Instrument Class®

Industrial Electronics

Signal Conditioning
Data Acquisition
Data Communications

DATAFORTH®

The Company

"Our passion at Dataforth Corporation is designing, manufacturing, and marketing the best possible signal conditioning, data acquisition, and data communication products. Our mission is to set new standards of product quality, performance, and customer service."

Dataforth Corporation, with over a quarter century of experience, is the worldwide leader in Instrument Class® Industrial Electronics – rugged, high-performance signal conditioning, data acquisition, and data communication products that play a vital role in maintaining the integrity of industrial automation, data acquisition, and quality assurance systems. Our products directly connect to most industrial sensors and protect valuable measurement and control signals and equipment from the dangerous and degrading effects of noise, transient power surges, internal ground loops, and other hazards present in industrial environments.

Global Service and Support

Dataforth spans the globe with more than 50 International Distributors and US Representative Companies. Our customers benefit from a team of over 130 sales people highly trained in the application of precision products for industrial markets. In addition, we have a team of application engineers in our Tucson factory ready to solve any in-depth application questions. Upon receipt of a quote or order, our Customer Service Department provides fast one-day delivery information turnaround. We maintain an ample inventory that allows small quantity orders to be shipped from stock.

Research and Development Team

A professional staff of engineering and marketing personnel identify and develop products to satisfy our customers' most stringent requirements. Dataforth's design department is composed of advanced degree engineers specializing in innovative analog and isolation circuit development, ensuring our customers of the highest performance products at the lowest price.

Automated Manufacturing and Test

Automated manufacturing techniques and machines are employed to produce our state-of-the-art SMT designs in optimum time and at minimum cost. All products are tested multiple times in automated test fixtures, and many undergo a 48-hour burn-in at elevated temperatures.

Quality Control

Dataforth operates under an ISO9001:2008 quality management system. Since our products are used in critical industrial data acquisition, control, and test and measurement applications, we strive to produce the highest quality, premier performance products available on the market. Zero defects and complete customer satisfaction are our goals. To further strengthen our commitment to quality, Dataforth secures certifications such as UL, CSA, Factory Mutual, ATEX, and CE.

www.dataforth.com

Utilizing the latest web development technology, our website presents visitors with an intuitive, informative layout that quickly leads them to their areas of interest. A parametric search engine efficiently locates products by model number or functional description, while an e-commerce section provides pricing information and order entry. Fully detailed product data sheets and application notes are available for download in PDF format. Visitors also can request literature, view new product release data, read our bi-monthly newsletters, get answers to technical questions, and quickly locate Distributors and Sales Representatives.

The Future

We fully understand that our ongoing success depends on satisfying our customers' requirements. Building upon our current position as marketplace leader, Dataforth continues to seek out the most cost-effective emerging technologies in design and manufacturing in order to provide the highest performance quality products at the lowest price. By intelligently observing and responding to constantly changing market forces, we ensure the continuation of our critical customer partnerships.

Control Solutions

High Performance

Industrial

Field and Control Room Electronics

Data Communications

Data Acquisition Systems

Signal Conditioning

Instrument Class® Field and Control Room Products for Data Acquisition, Analog and Digital Signal Conditioning, and Data Communications

Analog Signals—Thermocouple • RTD • Strain Gage • Volts • Milliamps

Digital Signals—Contact Closures • Relays • Limit Switches • Indicator Lamps • Motor Starters

°C PSI mV mA GPM Freq °F AC BTU

On Off

SensorLex® 8B

DSCA

DSCL, DSCP

SCMD

SCM7B

SCM5B

Analog Signal Conditioning

Digital Signal Conditioning

LDM30

isoLynx®
SLX200
SLX300
SLX718

isoLynx® Data Acquisition System

A/D

TTL I/O

Serial I/O

LDM485

RS-232

DCP485
RS-232/-485
Converter

Twisted Pair,
4-20mA Loop

RS-485 Data up to 4000 Ft.

Control Room

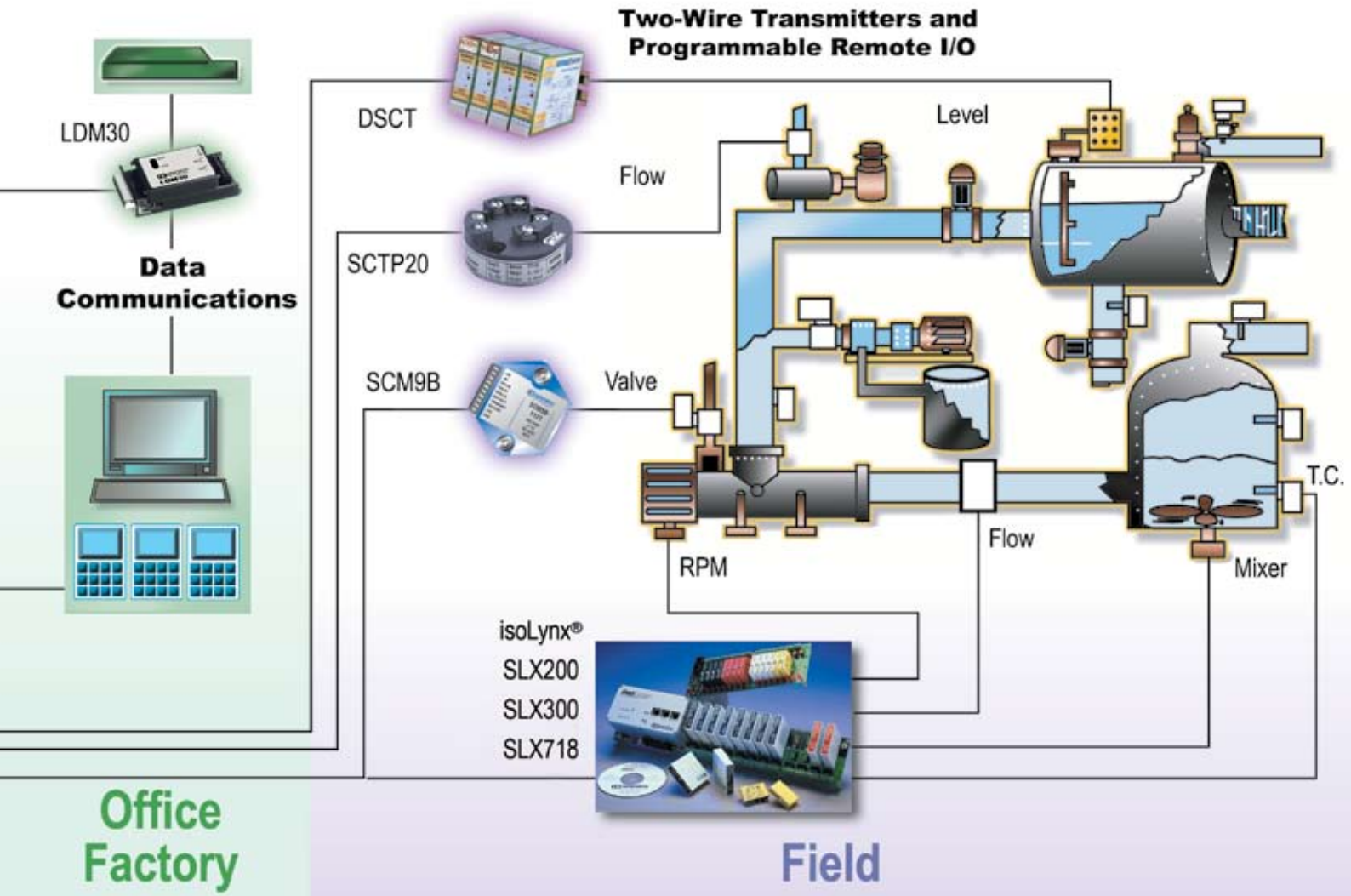
Protecting Valuable Industrial Signals and Data

Dataforth's dedication to ensuring the highest reliability and performance of customers' industrial automation systems is evidenced by the extensive range and unmatched versatility of our Instrument Class® signal conditioning, data acquisition, and data communication products. From broad-based families of isolated analog and digital signal conditioning modules to two-wire transmitters, a wide variety of data communication products, and the flexible, leading edge isoLynx® data acquisition systems, Dataforth products provide efficient, cost-effective protection for industrial signals and data in the control room, field, factory, and office.

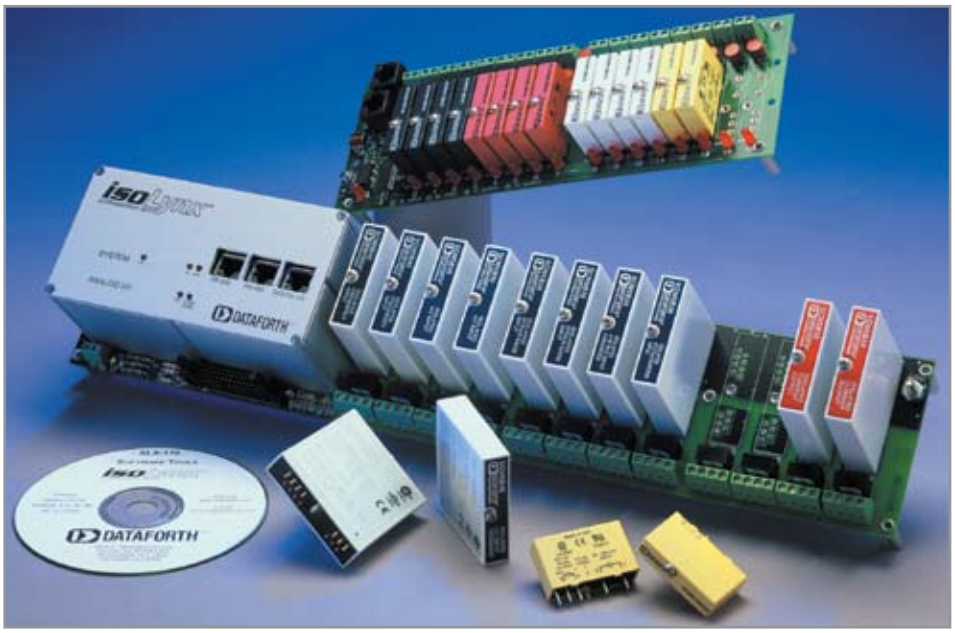
Our customers invest significant resources in their industrial automation operations; our commitment is to anticipate customer needs and respond with products that will enhance their operations' reliability, security, and productivity.

Dataforth Industrial Electronics

- **Analog-to-Analog Products**—Isolated DSCA, DSCL, SCM5B, SCM7B, and SensorLex® 8B I/O modules provide complete solutions for interfacing, conditioning, and distributing critical industrial signals.
- **Two-Wire Transmitters**—Rugged, low cost DSCT, DSCP, and SCTP transmitters link remote "field" sensors to computers and control rooms.
- **Distributed Data Acquisition & Control Products**—Versatile SCM5B isoLynx® SLX200, 8B isoLynx® SLX300, and isoLynx® SLX718 data acquisition systems and isolated, intelligent, programmable SCM9B I/O modules for flexible plant and laboratory applications.
- **Data Communication Products**—A wide selection of LDM limited distance data modems and converters, DIN rail mount DCP485 RS-232/RS-485 converters, and DCP35 RS-232 line drivers for secure, reliable data communication systems.



isoLynx® Data Acquisition Systems: SCM5B SLX200



The **SCM5B isoLynx® SLX200** is a fast, intelligent, fully isolated data acquisition system providing superior reliability, accuracy, and isolation for a wide range of rugged industrial applications. It offers maximum flexibility of analog and digital I/O selection at competitive prices for a broad range of factory automation, process control, test and measurement, machine control, and data acquisition applications. The SCM5B isoLynx® SLX200 implements industry standard Modbus RTU and TCP protocols, enabling communication with a wide variety of existing third-party software tools and HMI/SCADA packages. It is fully certified by Modbus-IDA and compatible with OPC. All I/O is input-to-output and channel-to-channel isolated.

Key Features and Specifications

- **Modbus RTU Support on RS-232 and RS-485**
- **Modbus TCP Support (optional)**
- **1500Vrms Channel-to-Channel & Channel-to-Bus Isolation**
- **240Vrms Field-Side Protection**
- **Fast 16-Bit A/D, D/A**
- **Best I/O Selection with 250+ Different I/O Modules**
- **-40°C to +85°C Operating Temperature**
- **Free Configuration Software**
- **CSA Certified (Class I, Division 2, Groups A, B, C, D)**
- **FM Approved (Class I, Division 2, Groups A, B, C, D)**
- **CE Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

SLX200 System Software: ReDAQ® Freedom SCADA

Web based / HTML / XML

SLX200 System Configuration

1. Select 6- or 12-ch analog I/O Controller base unit.
2. Add analog I/O expansion backplanes, either panel or DIN rail mounted, to a maximum of 60 channels.
3. Select any of 250 different SCM5B modules.
4. Add digital I/O panels.
5. Select any of 14 different SCMD modules to a maximum of 128 channels.
6. Add accessories: power supply, cables, racks.
7. Configure and operate the system using free software tools.

One I/O Controller unit can operate up to 60 channels of analog I/O and 128 channels of digital I/O, using Dataforth's SCM5B analog and SCMD digital modules. The Controller contains a powerful high-speed microcontroller, A/D and D/A subsystem, communication interface, data storage memory and status LEDs.

8B isoLynx® SLX300

The **8B isoLynx® SLX300** builds on the proven reliability and outstanding performance of the SCM5B isoLynx® SLX200 and miniature-sized SensorLex® 8B isolated signal conditioning modules to provide a compact, low cost solution for wide ranging rugged industrial applications.

Using industry standard Modbus RTU or TCP protocols, the SLX300 enables communication with a broad range of existing third-party software tools and HMI/SCADA packages.

Pluggable modules provide the system with maximum flexibility of analog and digital channel configuration, making it ideal for factory automation, process control, test and measurement, machine control, and data acquisition applications.

The SLX300 system enables simultaneous analog and digital I/O at sustained rates of up to 3.0kS/s. The system also offers advanced features including high-speed acquisition to 100kS/s burst.

Modular design allows configuration with up to twelve channels of isolated analog input, four channels of isolated analog output, and eight channels of isolated digital I/O.

Providing the system with powerful functionality, the eight digital I/O channels can be configured to perform seven different advanced special functions: pulse/frequency counter, pulse/frequency counter with de-bounce, waveform measurement, time between events, frequency generator, PWM generator, and one-shot pulse generator. The SLX300 also enables four alarm states – high, high-high, low, and low-low – to be set on the analog input and digital I/O special function channels with alarm output mapped to a user selectable analog or digital output channel.

The 8B isoLynx® SLX300 interfaces to a host system through a choice of communication links and can be either panel or DIN rail mounted. The SLX300 system also is available in a rack-mounted or bench top 1U enclosure.

Key Features and Specifications

- **Modbus RTU and TCP Support**
- **1500Vrms Input-to-Output & Channel-to-Channel Isolation**
- **240Vrms Field-Side Protection**
- **Wide I/O Selection**
  - **Analog – 19 Product Families, 123 Models**
  - **Digital – 6 Product Families, 14 Models**
- **Mix & Match Analog & Digital I/O**
- **Advanced Features Including Alarms, Counters, Timers, PWMs, and more**
- **–40°C to +85°C Operating Temperature**
- **Free Configuration Software**
- **CE Compliant**
- **Hazardous Locations Certifications Pending**
- **Manufactured per RoHS Directive 2002/95/EC**

SLX300 System Software: ReDAQ® Shape

ReDAQ® Freedom SLX200 SCADA Software

Combined with one or more SCM5B isoLynx® SLX200 systems, Dataforth's **ReDAQ® Freedom** supervisory control and data acquisition (SCADA) software provides an effective solution for factory automation, process control, test and measurement, machine control, and data acquisition applications.

Establishing a complete automation or test system with ReDAQ® Freedom is simple. The core software runs under Windows and sets up the central server, which then can connect to many SLX200 units via one or more networks. The networks can be RS-485, dedicated Ethernet connections, or a combination of the two. Users access the system with an Intranet or the Internet; no application software is required because the HMI is delivered via web browsers.

Because this powerful software is browser-based, remote control and monitoring are readily achieved. The administrator creates an I/O website using ReDAQ® Freedom - Designer, which generates Java applets such as pie charts, histograms, graphs, and mimics using a graphical user interface. Input data to the graphics comes from SCM5B isolated analog signal conditioning modules in the SLX200 units.

ReDAQ® Freedom - Server

– Generates data tables and Excel spreadsheets
– Integrated XML data exchange
– Dynamic calculations including mean, median, maximum, minimum, variance and standard deviation
– Built-in real-time, lossless historian
– Access entirely browser-based
– Streams real-time data for graphical displays

ReDAQ® Freedom - Designer

– Generates real-time and history graphics, including:
  – Live tables – Graphs – Histograms
  – Pie charts – Mimics
– Evaluates math expressions using: +, -, *, /, ^, %, sqrt, sqr, sin, cos, tan, acos, asin, atan, sinh, cosh, tanh, asinh, acosh, atanh, exp, log, min, max, ceil, floor, abs, neg, and rand

ReDAQ® Shape SLX300 Software

ReDAQ® Shape, Dataforth's out-of-the-box DAQ software for the SLX300, provides the easiest and most efficient development tool to create, save, and open graphical user interface projects as well as to test, process, and analyze acquired data. Built-in functions in the Acquire and Analyze panels can be used without setup and configuration. Just three easy steps are required to create customized Presentation panels using 18 high quality controls and powerful isoLynx® SLX300 functions.

ReDAQ® Shape also provides the most effective way to set up and configure the 8B isoLynx® SLX300 functions. The software controls are easily used to create, move, re-size, cut, copy, paste, and delete; they also support any graphical file format so presentations made with other software can be loaded into ReDAQ® Shape.

In contrast to other graphical software environments, ReDAQ® Shape SLX300 software has a very short user-learning curve. It was created using programming tools incorporated from Microsoft Visual Studio® and National Instruments Measurement Studio™, ensuring its integrated, across-the-board applicability.

ReDAQ®- Shape Controls

– Button
– Picture Box
– Text Box
– Group Box
– Label
– LED
– Switch
– Numeric Edit
– Thermometer
– Slide
– Tank
– Gage
– Meter
– Knob
– Chart Recorder
– Oscilloscope
– XY Plot
– Discrete Waveform Graph

8B isoLynx® SLX300 Functions

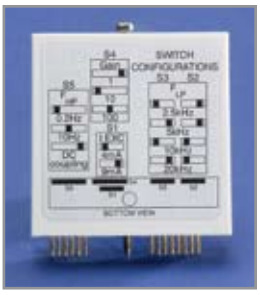
– Continuous and burst scan modes for 12 analog input chs and 4 analog output chs
– Automatically scales data from counts to engineering units
– Eight discrete I/O with seven special functions: pulse/frequency counter, pulse/frequency counter with de-bounce, waveform measurement, time between events, frequency generator, PWM generator, and one-shot pulse generator
– Customer user tag name for any input and output
– Cold Junction Compensation and linearization for thermocouple input modules
– Control loop and alarm output
– Three function timer (count-down, 24hr/day or day/time) with 10 programmable events

Instrument Class® Analog-to-Analog Signal Conditioning Modules, Transmitters, and Loop Isolators

Choose from the industry's largest selection of 1000+ high quality, Instrument Class® isolated analog I/O modules to condition and protect critical industrial data acquisition and control signals and valuable connected equipment. Dataforth's input modules interface to all types of external sensors and filter, isolate, amplify, and convert the input signals to high-level analog voltage or current outputs. Output modules accept high-level analog voltage signals from the host system, then buffer, isolate, and amplify before providing process current or voltage outputs to field devices.

Custom SCM5B, SCM7B, SensorLex® 8B, and DSCA signal conditioning modules as well as DSCT two-wire transmitters are available to meet your unique signal conditioning needs. We also offer a complete line of standard and DIN backpanels, cables, racks, and other accessories.

The **SCM5B48** interfaces to piezo-electric sensors. Slide switches enable field-configurable settings of excitation current, signal gain, and high-pass and low-pass cutoff frequencies.



SCM5B
Isolated Analog Signal Conditioning Modules

Nineteen family groups including more than 250 different **SCM5B** modules are available, encompassing a wide selection of isolated analog input and output functions.

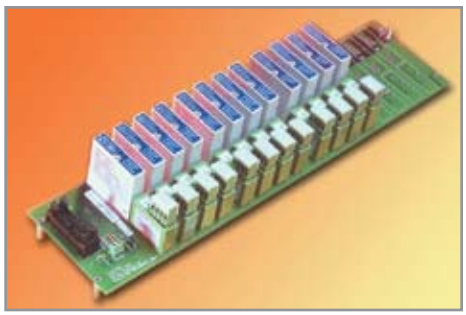
Model	Description
SCM5B30/31	Analog Voltage Input Modules, 4Hz BW
SCM5B32	Current Input Modules, 4Hz BW
SCM5B33	True RMS Input Modules, 45Hz to 20kHz
SCM5B34	Linearized 2- or 3-Wire RTD Input Modules, 4Hz BW
SCM5B35	Linearized 4-Wire RTD Input Modules, 4Hz BW
SCM5B36	Potentiometer Input Modules, 4Hz BW
SCM5B37	Non-Linearized Thermocouple Input Modules, 4Hz BW
SCM5B38-3x	Strain Gage Input Modules, Full, 1/2, or 1/4 Bridge, 4Hz BW
SCM5B38-0x	Strain Gage Input Modules, Full, 1/2, or 1/4 Bridge, 10kHz BW
SCM5B39	Current Output Modules, 400Hz BW
SCM5B392	Matched Pair Servo/Motor Controller Drivers, 1kHz BW
SCM5B40/41	Analog Voltage Input Modules, 10kHz BW
SCM5B42	2-Wire Transmitter Interface Modules, 100Hz BW
SCM5B43	General Purpose Input Modules with Excitation, 1kHz BW
SCM5B45	Frequency Input Modules, up to 100kHz
SCM5B47	Linearized Thermocouple Input Modules, 4Hz BW
SCM5B48	Accelerometer Input Modules, Configurable, 2.5kHz to 20kHz BW
SCM5B49	Voltage Output Modules, 400Hz BW
SCM5B Accessories	1-, 2-, 8-, 16-Channel Standard and DIN Backpanels; Cables, Power Supplies, 19-inch Racks, Jumpers, Resistors, CJC

Key 5B Features and Specifications

- **±0.03% Accuracy (Typical)**
- **±0.005% Linearity**
- **1500Vrms Transformer Isolation & 240Vrms Field-Side Protection**
- **ANSI/IEEE C37.90.1 Transient Protection**
- **5V Power (30mA Typical)**
- **4- to 6-Pole Low-Pass Filtering**
- **Low Output Noise**
- **-40°C to +85°C Operating Temperature**
- **CSA Certified (Class I, Division 2, Groups A, B, C, D)**
- **FM Approved (Class I, Division 2, Groups A, B, C, D)**
- **CE and ATEX Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

SCMVAS Isolated Voltage Attenuator System

Model	Description
SCMVAS-Mnnn	Attenuator Module, 70 to 495VAC
SCM5B30-07	Voltage Input Module, 4Hz BW
SCM5B40-07	Voltage Input Module, 10kHz BW
SCM5B33-02	True RMS Input Module
SCMVAS-PB8	8-Channel Backpanel
SCMVAS-PB16	16-Channel Backpanel



SCM7B
Isolated Process Control Signal Conditioning Modules

Fourteen family groups and 202 different **SCM7B** process control modules provide a compact, low cost solution for industrial data acquisition and process control applications.

Model	Description
SCM7B21/30/31	Voltage Input Modules, 300/3/3Hz BW
SCM7B22	Voltage Output Modules, 400Hz BW
SCM7B32/33	Process Current/Voltage Input Modules, 100Hz BW
SCM7B34/34N	Linearized 2- or 3-Wire RTD Input Modules, 3Hz BW
SCM7B35	2-Wire Transmitter Interface Modules w/Loop Power, 100Hz BW
SCM7B36	Potentiometer Input Modules, 3Hz BW
SCM7B37	Non-Linearized Thermocouple Input Modules, 3Hz BW
SCM7B39	Current Output Modules, 100Hz BW
SCM7B40/41	Voltage Input Modules, 10kHz BW
SCM7B47	Linearized Thermocouple Input Modules, 3Hz BW
SCM7B Accessories	1-, 2-, 4-, 8-, 16-Channel Standard and DIN Backpanels; Cables, Power Supplies, 19-inch Racks, Resistors

Key 7B Features and Specifications

- **±0.03% Accuracy (Typical)**
- **±0.01% Linearity**
- **1500Vrms Transformer Isolation & 120Vrms Field-Side Protection**
- **ANSI/IEEE C37.90.1 Transient Protection**
- **Wide Supply Voltage, 14V to 35VDC**
- **5-Pole Low-Pass Filtering**
- **Low Output Noise**
- **-40°C to +85°C Operating Temperature**
- **CSA Certified (Class I, Division 2, Groups A, B, C, D)**
- **FM Approved (Class I, Division 2, Groups A, B, C, D)**
- **CE and ATEX Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

SensorLex® 8B
Isolated Analog Signal Conditioning Modules

Developed in response to customer requests for a smaller isolated signal conditioner, Dataforth's **SensorLex® 8B** is housed in a miniature package ideal for embedded and portable applications. Nineteen family groups and a total of 123 models provide Instrument Class® performance and interface to a wide variety of voltage, current, temperature, position, frequency, and strain measuring devices.

Model	Description
8B30/31	Analog Voltage Input Modules, 3Hz BW
8B32	Current Input Modules, 3Hz BW
8B33	True RMS Input Modules, 45Hz to 10kHz
8B34	Linearized 2- or 3-Wire RTD Input Modules, 3Hz BW
8B35	Linearized 4-Wire RTD Input Modules, 3Hz BW
8B36	Potentiometer Input Modules, 3Hz BW
8B37	Non-Linearized Thermocouple Input Modules, 3Hz BW
8B38-0x	Strain Gage Input Modules, Full Bridge, 8kHz BW
8B38-3x	Strain Gage Input Modules, Full Bridge, 3Hz BW
8B39	Current Output Modules, 100Hz BW
8B40/41	Analog Voltage Input Modules, 1kHz BW
8B42	2-Wire Transmitter Inteface Modules, 100Hz BW
8B43	DC LVDT Input Modules, 1kHz BW
8B45	Frequency Input Modules, up to 100kHz
8B47	Linearized Thermocouple Input Modules, 3Hz BW
8B49	Voltage Output Modules, 100Hz BW
8B50/51	Analog Voltage Input Modules, 20kHz BW

Key 8B Features and Specifications

- **±0.05% Accuracy (Typical)**
- **±0.02% Linearity**
- **1500Vrms Transformer Isolation & up to 240Vrms Field-Side Protection**
- **ANSI/IEEE C37.90.1 Transient Protection**
- **5V Power (30mA Typical)**
- **3- to 5-Pole Low-Pass Filtering**
- **Low Output Noise**
- **-40°C to +85°C Operating Temperature**
- **CE Compliant**
- **Other Agency Approvals Pending**
- **Manufactured per RoHS Directive 2002/95/EC**

SensorLex® 8B
Isolated Analog Signal Conditioner Accessories

1-, 2-, 4-, 8-, and 16-channel standard and DIN backpanels are available for SensorLex® 8B modules

Single Channel DIN Rail Mounting Accessory

The **8BP01** is offered as a 5VDC powered (8BP01-X05) or 7 to 34VDC powered (8BP01-X24) DIN rail mount carrier suitable for any 8B signal conditioner. The 8B carrier can be mounted on any standard DIN rail (EN 50022-35 and EN 50035-G32). The carrier measures only 2.32" x 3.54" x 0.65" (59mm x 90mm x 16.5mm) making it ideal for use in high-density installations. It has a flammability rating of UL-94 V-0.

Design-in Accessories

SensorLex® 8B backpanels provide screw-terminal inputs and outputs as well as a DB25 header connector. DB25 cables are available in 1-, 2-, and 7-meter lengths. A power supply module in the same 8B form-factor is offered for input voltages of 7VDC to 34VDC and provides 5VDC output at 2A to power any combination of 8B signal conditioners.

SCM9B
Distributed Data Acquisition and Control Solutions

High quality **SCM9B** isolated, intelligent signal conditioning modules provide cost-effective protection and conditioning for a wide range of valuable industrial control signals and systems. Our extensive line includes fixed and programmable sensor-to-computer and computer-to-analog output interface modules, RS-232/RS-485 converters, RS-485 repeaters, and associated backplanes, accessories, and applications software. SCM9B modules are an excellent solution for distributed data acquisition applications such as process monitoring and control, remote data logging, product testing, and motion and motor speed control.

Model	Description
SCM9B-1000/2000	Sensor-to-Computer: Voltage, Current, Thermocouple, RTD, Bridge, Timer/Frequency, Digital Input Modules; User-Programmable (2000)
SCM9B-3000/4000	Computer-to-Analog Output: Voltage, Current Output Modules or User-Programmable (4000)
SCM9B-5000	Four-Channel Sensor-to-Computer: Voltage, Current, Thermocouple, Thermistor Input Modules
SCM9B-D100	DIN Rail Mount Sensor-to-Computer Modules
SCM9B-A1000/A2000	RS-232C/RS-485 Converters, RS-485 Repeaters
SCM9B Accessories	24-, 64-Point Digital I/O Boards; 8-, 14-Channel Backpanels; Utility, Data Logging, Process Control Software

Key 9B Features and Specifications

- **500Vrms Isolation**
- **Programmable Scaling and Linearization**
- **ASCII Command/Response Protocol**
- **15-Bit Measurement Resolution**
- **Continuous Self-Calibration**
- **Analog Readback**
- **CE Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

DSCA High Performance, DIN Rail Mount Isolated Signal Conditioners

Each Instrument Class® **DSCA** module provides a single channel of isolated analog input or output for use in data acquisition, test and measurement, and control system applications.

Model	Description
DSCA30	Analog mV Input Modules, 3Hz BW
DSCA31	Analog V Input Modules, 3Hz BW
DSCA32	Current Input Modules, 100Hz BW
DSCA33	True RMS Input Modules, 45Hz to 20kHz
DSCA34	Linearized 2- or 3-Wire RTD Input Modules, 3Hz BW
DSCA36	Potentiometer Input Modules, 3Hz BW
DSCA37	Non-Linearized Thermocouple Input Modules, 3Hz BW
DSCA38	Strain Gage Input Modules, Full Bridge, 3kHz BW
DSCA39	Current Output Modules, 0 to 20mA, 4 to 20mA, -20mA to +20mA
DSCA40	Analog mV Input Modules, 3kHz BW
DSCA41	Analog V Input Modules, 3kHz BW
DSCA42	2-Wire Transmitter Interface Modules, 100Hz BW
DSCA43	General Purpose Input Modules with Excitation, 3kHz BW
DSCA45	Frequency Input Modules, up to 100kHz
DSCA47	Linearized Thermocouple Input Modules, 3Hz BW
DSCA49	Voltage Output Modules, 1kHz BW

Key DSCA Features and Specifications

- **±0.03% Accuracy (Typical)**
- **±0.01% Linearity**
- **1500Vrms Transformer Isolation & 240Vrms Field-Side Protection**
- **ANSI/IEEE C37.90.1 Transient Protection**
- **True 3-Way Isolation**
- **Wide Supply Voltage, 15V to 30VDC**
- **Industry Standard Output of 0 to 10V ±10V, 0 to 20mA, or 4 to 20mA**
- **4- to 6-Pole Low-Pass Filtering**
- **Low Output Noise**
- **-40°C to +80°C Operating Temperature**
- **Plug-in Terminal Blocks Simplify Wiring**
- **C-UL-US Listed (Class I, Division 2, Groups A, B, C, D)**
- **CE and ATEX Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

DSCT Loop-Powered, Low Cost, Isolated DIN Rail Mount Two-Wire Transmitters

Two-wire transmission loops are a very economical method for connecting sensors to distant control rooms. Seven family groups and 48 **DSCT** two-wire transmitter models condition and send analog signals from sensors located in the "field" to monitoring and control equipment, usually computers, located thousands of feet away in central control areas. The transmitters accept a wide range of inputs, including millivolt, volt, milliamp, thermocouple, RTD, potentiometer, and slide wire. They operate on power from a two-wire signal loop and modulate the supply current to represent the input signal within a 4 to 20mA range.

Model	Description
DSCT30	Analog Voltage Input Transmitters
DSCT32	Analog Current Input Transmitters
DSCT34	Linearized 2- or 3-Wire RTD Input Transmitters
DSCT36	Potentiometer Input Transmitters
DSCT37	Thermocouple Input Transmitters
DSCT47	Linearized Thermocouple Input Transmitters

Key DSCT Features and Specifications

- **±0.03% Accuracy (Typical)**
- **±0.01% Linearity**
- **1500Vrms Transformer Isolation & 240Vrms Field-Side Protection**
- **ANSI/IEEE C37.90.1 Transient Protection**
- **Wide Loop Supply Voltage, 10.8V to 60V**
- **5-Pole Low-Pass Filtering**
- **-40°C to +80°C Operating Temperature**
- **Mounts on DIN Rail EN 50022, 35x7.5 or 35x15**
- **C-UL-US Listed (Class I, Division 2, Groups A, B, C, D)**
- **CE Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

Wide Selection of Industrial Loop Isolators and Transmitters

DSCL, **DSCP**, and **SCTP** products form a complete family of loop and universal AC/DC-powered isolators and transmitters in DIN rail, component, and head-mount packages. The family includes basic loop-powered isolators, wide-range AC/DC-powered isolators and transmitters, and fixed-gain or hardware and software configurable models. They accept a wide range of voltage, current, thermocouple, and RTD input signals, then filter, isolate, amplify, linearize, and convert them to high-level analog outputs for use in data acquisition, test and measurement, and control system applications.

Key Features and Specifications

- **Full Family of Loop Isolators and Transmitters**
- **Signal-Powered Passive Loop Isolator Models**
- **Jumper and Software Configurable Models**
- **Isolation Protection to 4000Vrms**
- **Wide Range 24V to 60V or 85V to 230V AC/DC-Powered Models**
- **Multiple Channels per Package Available**
- **PCB, DIN Rail, Panel, and Instrument Head Mounting Options**
- **CE Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

DSCL Loop Isolators

Model	Description
DSCL20	Loop Powered Isolator, Component Module
DSCL21	Loop Powered Isolator, DIN Rail Mount
DSCL22	Loop Powered Isolator, DIN Rail or Panel Mount
DSCL23	4 to 20mA Isolator w/DC Supply, DIN Rail or Panel Mount
DSCL24	Single- or Multi-Channel Isolator, DIN Rail or Panel Mount

DSCP and SCTP Programmable Temperature, Voltage, and Current Transmitters

Model	Description
DSCP20	2-Wire Temperature Transmitter, DIN Rail Mount
DSCP55, 61-65, 70	Compact 6.2mm Signal Converters, Dip-Switch Configurable
DSCP81	Isolated V/I Transmitter, DIN Rail Mount
SCTP20	2-Wire Temperature Transmitter, Head Mount
DSCP/SCTP Accessories	Module and PC Interface Cables and Configuration Software

Industrial Data Communication Products

Industrial LANs and data communication systems stretch over long distances, inside and outside, with signals exposed to electrical transients, noise, ground loops, power surges, and lightning. Commercial communication equipment often is not designed for use in these environments, which can lead to unreliable signal quality, damage to expensive peripherals, computers and other on-line equipment, and production down-time. Our heavy duty modems "harden" and protect these systems, and can extend communications for many miles without expensive cabling.

LDM Limited Distance Data Modems and Converters

Model	Description
LDM30	Low Cost, General Purpose Limited Distance Modem, RS-232
LDM35	Signal-Powered Limited Distance Modem, RS-232
LDM70	Fully Isolated Limited Distance Modem, RS-232
LDM422	Isolated Limited Distance Modem, RS-232/RS-422 Converter
LDM485	Isolated Limited Distance Modem, RS-232/RS-485 Converter
LDM80	Signal-Powered Fiber Optic Modem, RS-232
LDM85	Fiber Optic Modem, High Speed 5M Baud, RS-232/422/423, TTL

DCP DIN Rail Mount Industrial Data Products

Model	Description
DCP485	Fully Isolated RS-232/RS-485 Converter
DCP35	Signal-Powered RS-232 Line Driver

Key Features and Specifications

- **Protects Equipment from Damage due to Power Surges,Transients, Lightning**
- **1500Vrms Isolation with Optocouplers and Power DC-to-DC Converter (6000VDC, 1 min)**
- **Extends RS-232 Communication Distances without Expensive Low-Capacitance Cabling**
- **Connects RS-232 Devices to RS-422 and RS-485 Devices**
- **Data Rates to 115k Baud**
- **Distances to 12 Miles (20km)**
- **CE Compliant**
- **Manufactured per RoHS Directive 2002/95/EC**

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Dataforth's full-service website is an easy-to-use, comprehensive source for sales, product, and applications information. The site includes:

- Fast, accurate parametric search capabilities for all Dataforth industrial signal conditioning, data acquisition, and data communication products
- On-line product quote and purchase
- On-line product data sheets, application notes, and user manuals
- Direct applications assistance, sales, and customer service help lines readily available
- Latest news on company operations and new products
- Comprehensive signal conditioning, data acquisition, and control tutorial
- Worldwide corporate and sales contact information
- Literature ordering center

On-Line Help

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Data Sheets

Application Notes

Product Information

DATAFORTH®

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