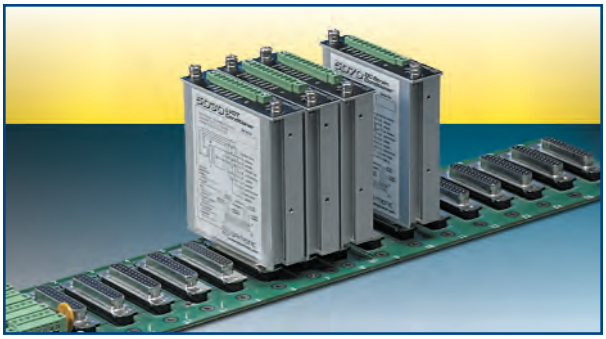
DAYTRONIC

SELECTION GUIDE

v2015.1

Analog Signal Conditioners • Panel Meters • Data Acquisition Systems • Transducers

5D Family of High-Accuracy Signal Conditioning Modules



Each compact **5D Series Signal Conditioner Module** is a self-contained, easily configurable, physically hardened instrument, with pluggable screw-terminal connectors. The DIN-mountable 5D modules provide exceptionally stable, repeatable measurement results within an environment of high mechanical and/or electrical noise. They are ideal for critical monitoring operations and high-speed analog control loops. Gain, phase, excitation, filters, zero-span, and other critical characteristics are programmable per application, making the 5D Series adaptable to a wide range of sensors with minimal module selection required.

5D Module Specifications:

Housing	Extruded aluminum casing; mountable to panel, fixture, or DIN-rail
Dimensions	HWD: 3.1" x 0.85" x 3.3"
Power Requirements	24 VDC ± 10%; 100 mA nom.; 150 mA max.
Input Types and Ranges	DC-excited strain gage transducers: 0.10 to 16.00 mV/V; AC-excited strain gage transducers: 0.5 to 3 mV/V; AC-excited LVDT's (4-, 5-, and 6-wire): 16 to 2500 mV/V; Miscellaneous DC voltage sources: 0.05 to 150 VDC; Frequency input ranges: 300 Hz to 400 KHz
Analog Filters	0.2, 2, 20, 200, or 2000 Hz, independently selectable for each output
Input Overvoltage	Up to 240 VAC rms on all signal and excitation lines
Protection ESD Protection	Up to 4 kV on all connectors
Isolation	1500 VAC between input and output terminals; 1500 VAC between I/O terminals and power supply/communications terminals
Operating Temperature Range	-10° C to 70° C (14° F to 158° F)
Analog Outputs	Filtered ± 0 to 5 VDC (for standard and "S" units) or ± 0 to 10 VDC (for "V" units) with linearity maintained for 20% over-range; for standard units (only), Output B is switchable via logic
Logic Inputs	"Enable" line Nominal 0-5 V, where 5V = Logic 1 ("true")
Power/Interface Connector	Standard versions: DB25; "S" and "V" versions: 10-pin screw-terminal

Models Available *(5D Family)*

0- +/- 5 Standard (db-25)	0- +/- 5 Screw Terminal	0- +/- 10 Screw Terminal	
5D30	5D30S	5D30V	AC LVDT Conditioner
5D40	5D40S	5D40V	Frequency Input Conditioner
5D64	5D64S	5D64V	DC Voltage Conditioner DC
5D70	5D70S	5D70V	Strain Gage Conditioner AC
5D78	5D78S	5D78V	Strain Gage Conditioner

Model 5DMB

Motherboards & Chassis

Daytronic offers four motherboards for mounting and organizing of the 5D modules. Each motherboard contains individual DB25 "slots" for the mounting of the 5D Module to organize the power, communications and the analog signals for convenient hook up to your application. Motherboard requires the 5D module to contain the DB25 connector interface.

5DMB-4	Four position, panel mount
5DMB-8	Eight position, panel mount
5DMB-16	Sixteen position, panel mount
5DMBE-16	Sixteen position, 19" chassis mount with integrated AC power supply (as shown)

5M Family of Analog-DIN Mount Signal Conditioning Modules



Each **5M DIN Mount Signal Conditioner Module** is a self-contained, manually configurable, analog conditioning instrument with non-removable screw-terminal connectors. Every 5M module is specifically designed to condition the appropriate connected sensor for repeatable and accurate analog measurement results. They are ideal for critical monitoring operations and high-speed analog control loops. Gain, phase, excitation, filters, zero-span, and other critical characteristics are selectable per the front panel without the need to open the DIN case - allowing easy setup and configuration without the need for software or computer support.

5M Module Specifications:

Housing	Polyamide - gray, Inflammability class acc to UL94 V0
Dimensions	HWD: 99.0 mm x 22.5 mm x 144.5 mm
Power Requirements	24 VDC ± 10%; 100 mA nom.; 2 Watts (varies with model)
Input Types and Ranges	AC & DC-excited strain gage transducers: 0.5 to 10.0 mV/V; AC RMS 0.05 to 200.0 V; AC-excited LVDT's (4-, 5-, and 6-wire): 16 to 1600 mV/V; Thermocouple - 4 Channels - E,J,K,N,R,S,T; Frequency input ranges: 250 Hz to 32,000 Hz
Analog Filters	Selectable, Three Pole - Modified Butterworth - Low Pass, roll-off frequency varies with module
Input Overvoltage Protection	Up to 240 VAC rms on all signal and excitation lines Up to 4 kV on all connectors
Accuracy	Offset and Gain Stability ±30 ppm/Deg C; vs. time ±10ppm/month Gain Accuracy is limited to calibration source; 5M14(V) is ±0.02% of input range
Operating Temperature Range	-10° C to 70° C (14° F to 158° F)
Analog Outputs	Selectable ± 0 to 5 VDC or ± 0 to 10 VDC with linearity maintained for 20% over-range 4-20 ma; Thermocouple Module is model dependent for analog output
Status Lights	Power - green, Over-range - yellow
Power/Interface Connector	Non- removable screw terminals; 16 positions; 12 to 26 AWG

Models Available *(5M Family)*

Model	Description	Features
5M14	Thermocouple - Quad Channel	E,J,K,N,R,S,T linearized and non-linearized with CJC provided, high & low gain
5M30	AC LVDT - Single Channel	16 to 1600 mv/V, remote sense, auto / manual phase, wide zero
5M40	Frequency - Single Channel	250 to 32,000 Hz full scale, sensitivity from 50mv to 250 V
5M68	AC RMS - Single Channel	.05V to 200.0 V full scale, multi-range input
5M70	DC Strain Gage - Single Channel	.5 to 10 mV/V, full bridge sensors, remote sense, wide zero, shunt, symmetry
5M78	AC Strain Gage - Single Channel	.5 to 5.0 mv/V, remote sense, phase, wide zero, symmetry, shunt
IL70	DC Strain Gage - In-Line	.5 to 10 mV/V, full bridge sensors, wide zero, shunt, symmetry

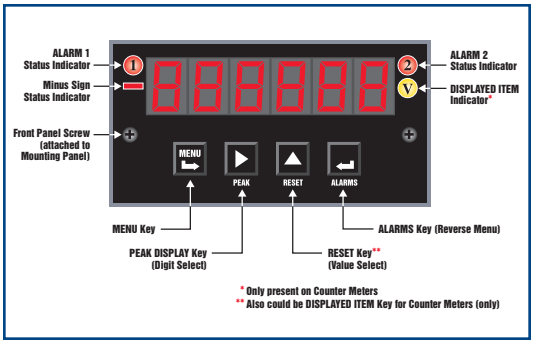
Model IL70

In-Line DC Strain Gage Conditioner

For applications requiring close proximity of the conditioner to the sensor; consider the **IL70** In-Line unit. This conditioner utilizes the same basic features of the 5M70 DIN mount version but with a waterproof - sealed enclosure. Connections are made via screw terminals located inside the enclosure which also houses the switch selections and adjustments to provide an amplified voltage or current output for the application. Wider input power, from 11 to 28 Vdc allows the unit to be used for mobile as well as fixed installations.

Series 2000 General Purpose Digital Panel Meter

Thermocouple, RTD, DC Strain Gage, Counter/Timer, Frequency, Quadrature, DC Volts/Current, AC RMS Volts/Current, Milliamps



Daytronic **Series 2000** is a general purpose, low cost, panel meter for instrument applications involving simple readout requirements requiring high resolution. The meter family has many optional features that include limit monitoring, DAC analog output, Max capture, Tare, Hold, computer communications and extended range features.

2000 Series Basic Meter Specifications:

Physical / Environmental

Case	NEMA 4 (IP65) when mounted in panel; 1/8 DIN, with high-impact GE Lexan housing material
Instrument Dimensions (HWD)	48 mm (1.89 in.) x 96 mm (3.78 in.) x 117 mm (4.61 in.)

Power (Meter)

Input Voltage (Standard)	Universal 85 to 264 VAC; 90 to 370 VDC 5.3 W max
Low-Level Input Voltage ("G" Option)	Universal 8 to 28 VAC; 9 to 37 VDC
Frequency	DC and 47 to 440 Hz

Readout	5 digits (Conditioner Meters) or 6 digits (Counter Meters), with blanking of leading (non-significant) zeroes; 7-segment; 14.2 mm (0.56 in.) high
Color (Standard)	Red (green available on request)
Range (Conditioner Meters)	-99999 to +99999 and -99990 to +99990 (count by 10 with rounding)
Range (Counter Meters)	-99999 to +99999, with programmable decimal point; selectable count by 10 or 100 with rounding; XXXXEX scientific notation beyond 99999 (RATIO or DRAW mode with "R" Option, only)
LED Lamps	Minus sign; 2 red alarm-status indicators; 1 yellow displayed-item indicator (Counter Meters only); see diagram above

Models Available

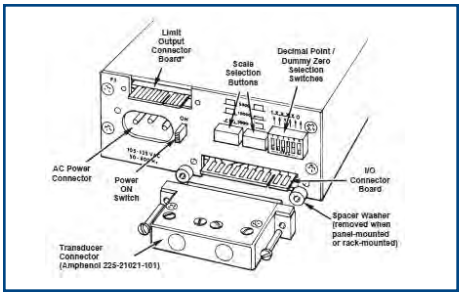
2110	Thermocouple Series
2118	RTD Series
2135	Quadrature Encoder Meter
2140	Counter Meter
2160	DC Voltage Input
2161	DC Current Input
2162	4-20 ma Process Input
2168	AC RMS Voltage Input
2169	AC RMS Current Input
2170	DC Strain Gage (six wire)

Options

A	Dual Contact Relays – Limits
B	Dual Solid State Relays – Limits
C	Analog Output (+/-10 Vdc / 4-20mA)
D	RS-232 Communications
E	RS-485 Communications
G	Low Power (9-32 Vdc)
A4	Quad Contact Relay Card
B4	Quad Solid State Relay Card
C2	Dual Analog Output - Counter Meter Only
R	Extended Range Meter- Counter Meter Only
M	Modbus Comm Card
U	USB Comm Card
U5	USB/RS485 Comm Card

Series 3000 Analog Based Panel Instrument

DC Strain Gage, AC Strain Gage, AC LVDT, Frequency, DC Voltage



The **Series 3000 Instrument** offers front end signal conditioning for applications which require stable, accurate analog signals that will connect to Controllers, Plotters, PLCs or PC acquisition system to provide isolation and signal integrity from the sensor. Every Model 3000 has an analog + / - 5 Vdc voltage level continuously available for use external to the instrument. Internally, the meter uses this continuous analog signal for optional Limit Detection and/or Peak Capture circuits. Based on traditional analog circuit hardware, this meter offers "real time" control and signal capture without concern of digitizing sampling speeds which may cause repeatability errors. The Model 3000 is ideal for industrial processes which require highly repeatable sensing of the sensor for product quality and conformance specifications.

3000 Series General Specifications:

Case	Each unit is housed in a single piece of heavy-gage aluminum
Mounting	A simple reassembly procedure allows mounting in the user's precut panel (for cutout dimensions, maximum panel thickness allowed is 1/8"); the **Model 3004 Rackmount Adaptor** permits secure mounting of up to four units in a standard 19-inch rack
Weight	Instrument: approximately 2.0 Lbs (0.9 kg) maximum Shipping: approximately 3.5 Lbs (1.6 kg) maximum
Voltage	105-135 VAC standard; "F" option for 230 VAC operation
Frequency	50-400 Hz
Display	Orange LEDs, six digits with polarity sign, 0.4" (1.0 cm) height; Most Significant Digit of display is either unit or reads "1," and in either case contains polarity sign; Least Significant Digit is a dummy zero which may be lit or unlit, as desired
Scaling	Selectable at rear panel; full-scale values of ±5000 counted by "1's", ±10000 counted by "2's", or ±20000 counted by "5's", with selectable decimal-point locations (along with dummy zero) to give decade multiplier factors of 10, 1.0, 0.1, 0.01, 0.001, or 0.0001
Sampling Rate	3 samples per second for the display, analog output signal is continuous
Logic Outputs	Both true and complement available for each limit condition (LOW, OK, HIGH); TTL-compatible, wire-ORable, 10-mA sink, 0.5-mA source (maximum); normally non-latching, but latching outputs are also selectable

Models Available

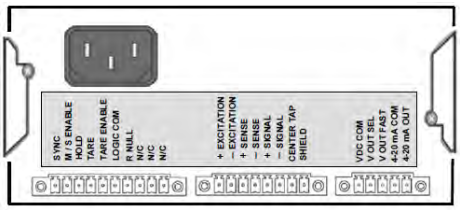
3130	AC LVDT Conditioner
3140A	Frequency Conditioner
3163	DC Voltage Input Conditioner
3170	DC Strain Gage Conditioner
3178	AC Strain Gage Conditioner
32xx	Readout added to the Conditioner
33xx	Readout and Limit added to the Conditioner

Options

F	230 Vac Power Input
P	Peak Capture
C	Analog Current Output 4-20 mA
G	Isolated Analog Voltage Output +/– 10 Vdc
R	Contact Limit Relays
S	Solid State Limit Relays

* Options Combinations are limited

3700 Family of Digital Readouts with real time-amplified Analog Output



The **3700 unit is a single-channel panel instrument** for sensor conditioning, engineering unit's readout and true amplified analog output. The 3700 series is based on the popular Daytronic 3000 meters in its focus to provide a stable, user configured, display and a noise free amplified analog signal for the measurement of force, load, displacement and other parameters associated with low level sensor signals. The display is user configured for engineering unit scaling up to +/- 199950... independently of the analog signal, maximizing the capabilty of the analog signal output level. The 3700 also has an added feature of a true analog "TARE" button for quick zero offset alignment.

3700 Specifications:

Housing	Aluminum extruded metal case
Dimensions	HWD: 2.84" x 5.68" x 7.06", weight 3.25 Lbs
Power Requirements	85-264 VAC, 47-63 Hz @ 0.2 amps - IEC power recepticle, no power switch
Input Types and Ranges	3730 - AC LVDT's (4,5, and 6-wire): 16 to 1600 mV/V; 2.5, 5.0 or 7.5 KHz @ 2.77 VRMS 3740 - Frequency to Voltage: 250 Hz to 124 KHz, 50 mV to 250 V sensitivity 3760 - DC Voltage / 4-20 mA : 50 mV to 200 Vdc, 4-20 / 4-12-20 mA 3770 - DC Strain Gage (4 or 6 wire): 0.5 to 10.0 mV/V; 5 or 10 Vdc Excitation 3778 - AC Strain Gage (4,5 or 6 wire): 0.5 to 5.0 mV/V; 3.28 or 5.0 KHz @ 2.77 VRMS
Analog Filters	Selectable,Three Pole - Modified Butterworth - Low Pass, rolloff frequency varies with model
Input Overvoltage	Up to 240 VAC rms on all signal and excitation lines
ESD Protection	Up to 4 kV on all connectors
Accuracy	Offset and Gain Stability ±30 ppm/Deg C; vs. time ±10ppm/month Gain Accuracy is limited to calibration source, 3700 is ±0.02% of input range
Operating Temperature	0° to 55° C (32° to 131° F)
Analog Outputs	Selectable ± 5 or ±10 VDC with linearity maintained for 20% overrange, 4-20 mA (4-12-20)
Display	+/- 199950. Count by 1,2 or 5 pending display range, w/dummy zero. Independently adjustable Tare - Active green, Tracking - yellow, Out of Range of Tare - red
Indicator LED	
Interface Connector	removable screw terminals; 12 to 26 AWG

Models Available *(3700 Family)*

Model	Description	Features
3730	AC LVDT	16 to 1600 mv/V, remote sense, auto / manual phase, wide zero, null
3740	FREQUENCY	250 Hz to 124 KHz, low level signal sensitivity, front panel calibration
3760	DC Voltage - 4-20 mA	50 mV to 200 Vdc / 4-20 mA
3770	DC Strain Gage	0.5 to 10.0 mv/V, remote sense, wide zero, symmetry, shunt calibration
3778	AC Strain Gage	0.5 to 5.0 mv/V, remote sense, phase, wide zero, symmetry, shunt calibration

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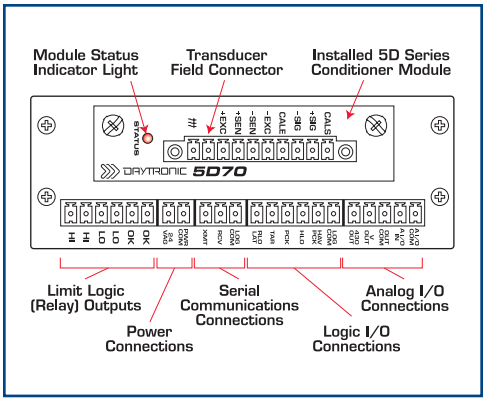
Instrument Panel Meter using the 5D Module Signal Conditioners



The **3000PLUS Panel Meter** is a field-scalable indicator with operator-programmable signal processing and PC/PLC communications. Mechanically and electrically rugged instrument is ideal for pump, motor, hydraulic, and other high-noise monitoring applications. The meter maintains signal integrity to deliver accurately scaled analog output of ±5 VDC, ±10 VDC, or 4-20 mA, while sampling all data at 16-bit resolution. Peak capture, tare offset, signal hold, and limit-controlled relay functions are included.

3000PLUS Specifications:

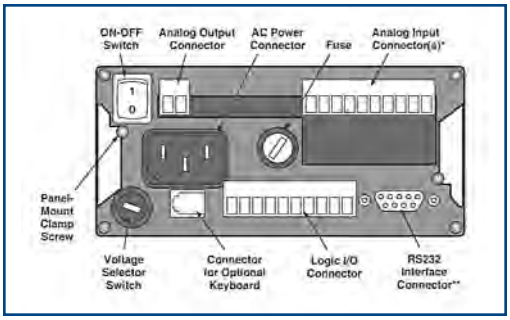
Case and Dimensions	Extruded metal chassis, mountable to user's panel; secure rear connections via screw terminals. HWD: 1.7" x 4.41" x 7.17" (Same footprint as 3000 Series)
Power Requirements	24 VDC ± 10%; 300 mA nom.; 350 mA max.; 8.4 W; optional AC adapter
Operating Temperature Range	-18° C to 55° C (0° F to 130° F)
Sample Rate	10 kHz
Data Display	6-digit red LED; count by 1, 2, or 5 resolution to maximum of 199990; selectable digital filtering
Data Value Display	Channel 1: Engineering Units reading on input. Channel 2: Peak / Tare value of Channel 1 Channel 3: Multimeter reading of Channel 2's electrical unit's value.
Analog Output	1) Live : "True" analog signal as defined by the 5D Module setting 2) Selectable DAC ± 0 to 5 VDC, ± 0 to 10 VDC, or 4-20 mA, single-ended;14-bit resolution; 47-Hz filter; update rate of 20 msec
Relay Logic Outputs	Two limit settings. Contract Relay outputs for High-OK-Low, selectable polarity; 8 A, 250 VAC at full resistive load
Communications	Three-wire RS232 for setup and data transfer
Logic I/O	TARE, Have Peak Detected, Latch Limits, Hold, Peak
Set-Up	Via front panel keypad or via computer interface utilizing Windows Configurator
Indicators	For setup sequence, HI-OK-Low, communications and display channel indication.

Models Available - refer to 5D Series for sensor parameters

3KPlus - 30	AC LVDT Conditioner / Indicator / Controller
3KPlus - 40	Frequency Conditioner / Indicator / Controller
3KPlus - 64	DC Voltage Conditioner / Indicator / Controller
3KPlus - 70	DC Strain Gage Conditioner / Indicator / Controller
3KPlus - 78	AC Strain Gage Conditioner / Indicator / Controller

Series 4000 Intelligent Signal Conditioning Controller

DC Strain Gage, AC Strain Gage, AC LVDT, Frequency, DC Voltage



One of the first "Intelligent" panel meters on the market, the **Series 4000 Instrument** is a combination of a sensor signal conditioner, a user display and interface, and a programmable logic controller. The Series 4000 Instrument, though intended as a stand-alone device, can also communication with a computer or PLC via its digital interface link. The internal setup of the Series 4000 lets the user configure the meter to the specific application using a mixture of analog and digital functionality.

4000 Series General Specifications:

Physical / Environmental

Case	DIN package outline of extruded metal, with splash-resistant front panel
Mounting	Clamp slides allow mounting in user's precut panel (for cutout dimensions, maximum panel thickness allowed is 0.24" (6 mm))
I/O Connections	Secure rear connections via screw terminals
Operating Temperature Range	0° C to +50° C (+32° F to +122° F)
Instrument Weight	Approximately 3.5 Lbs (1.6 kg)
Voltage	90-135 or 180-279 VAC, selectable by rear-panel switch; optional 11-18 VDC **("V" Option)** 47-63 Hz 35 W maximum
Data-Ram Battery	3-V lithium; the instrument will display **"LO bat"** on power-up when the battery is found to be low
Conversion	16-bit (±32000 count); 1000 finished engineering-unit answers per second, typical
Internal 15-Segment Linearization	Programmable from front-panel or by computer-port command
Logic I/O	TTL- and CMOS-compatible; isolated (±1500 V) from power and communication ports
"Source" Channel	Any scanned channel may be represented by the 4000 instrument's single analog
Full-Scale Range	±10 V, microprocessor driven and scaled ±1 mV, 5 mA max, 40 Hz max
Serial	9-pin RS232 standard; RS485 optional baud rates from 300 through 153.6K

Models Available

4030	AC LVDT Conditioner
4032	Dual Input AC LVDT Conditioner
4040	Frequency Conditioner
4060	DC Voltage Input Conditioner
4062	Dual Input DC Voltage Conditioner
4077	DC Strain Gage Conditioner
4078	AC Strain Gage Conditioner
4K/HP	Horsepower Unit, AC Strain & Freq
4K/PM-77	Peak Monitor - DC Strain Gage
4K/SPC-30	Statistical Process Control - AC LVDT
4K/SPC-32	Statistical Process Control - Dual AC LVDT
4K/SPC-60	Statistical Process Control - DC Voltage
4K/SPC-62	Statistical Process Control - Dual DC Voltage
4K/SPC-77	Statistical Process Control - DC Strain Voltage
4K/WT-77	Industrial Weighting Instrument - DC Strain Gage

SPS6000 Multi-Channel Signal Conditioning Front End Unit

The **SPS6000 Signal Processing System** serves as a high-speed front end for PC-based data acquisition systems, distributed control systems and industrial PLC's. In addition to the highest-quality **Signal Conditioning,** it provides user-configured **Analog Signal Operations** like sum/difference, +/- peak capture and sample/hold, auto zero and limit control. Proven analog technology lets the system recognize even the quickest of transient events, while analog limit decisions provide instantaneous outputs on critical violations.

Every SPS6000 system represents a COMPREHENSIVE INTEGRATED SOLUTION, carefully engineered to meet a specific test and measurement application's demands for *precision, flexibility and reliability...*

SPS6000 General Specifications:

Physical

Housing	Compact, rugged chassis of extruded metal; splash-resistant front panel; fan-driven pressure air flow; damp slides allow mounting in user's precut panel
Weight (typical system)	12 Lbs (5.5 kg) approximate
Power Requirements	**Input Voltage:** Continuous power range from 100 to 240 VAC; 55 W maximum; **Frequency:** 47-63 Hz
Environmental	**Operating temperature range:** +5°C +50°C (+40°F to +122°F); **Relative Humidity:** 5% to 95% noncondensing
ESD Protection	In addition to conformance to CE EMC specifications, protection of all inputs and outputs is provided
Display (optional)	8-digit 0.562" orange LED's
Front-Panel Indicators	Two green lights, one for system power indication ("POWER") and one for system health indication ("OK")
Analog Inputs	Up to 32 per SPS6000 mainframe (handled by up to 8 Signal Conditioner cards–up to 4 input channels per card); for complete card specifications and SPS6000 compatibility see the latest Daytronic *Signal Conditioner Cards* catalog
Standard Input Types	**Thermocouples** (Types E, J, K, N, R, S. and T); **RTD's** (100-ohm platinum, DIN or American standard); **LVDT's** (5- or 7-wire, capable of 3280 Hz operation); **Variable Reluctance Transducers** (3- or 5-wire); **Pulse signals** (AC or unipolar, floating or grounded, irrespective of waveform); **DC Voltage Signals** (2-, 3-, or 4-wire, floating or grounded); **4 - 20 mA Current Signals** (unipolar or bipolar); **AC Voltage or Current Signals; Strain Gage Transducers** (4-arm bridge, 350Ω or higher, DC- or AC-excited); **Strain Gage Configurations** (1/4-bridge, 1/2-bridge, or full-bridge)
Analog Outputs	Up to 32 per SPS6000 mainframe (from up to 2 Analog Signal Processor cards–up to 8 or 16 outputs per card); **Accuracy:** 0.02% of full scale, typical, following calibration by user; **Voltage:** ±10VDC; **Bandwidth:** Up to 10 kHz, set by conditioner card
General	+5V Reference Supply provided; maximum current is 50 mA, total; external reference supply may be alternatively used; allowable V_{CC} range is +5V to +24V
Logic Inputs	Up to 8 per ASP card (for direct control of assigned processing functions); high-impedance device with internal 10KΩ pull-up to V_{CC} ("Logic 1"); may be driven by TTL, LSTTL, CMOS (+5V), or through dry contacts to Common
Logic Outputs	Up to 8 per ASP card (for external annunciation and control); open-collector current sink with internal 10KΩ pull-up to V_{CC}; maximum sink current is 50 mA per output

Models Available

SPS6108D-CE	Eight Channel Mainframe w/display
SPS6116D-CE	Sixteen Channel Mainframe w/display
SPS6132D-CE	Thirty-Two Channel Mainframe w/display
SPS6701	Sum /Difference Module
SPS6702	Peak and Track /Hold Module
SPS6703	Auto Zero Module
SPS6704	Comparator Module (Limit Zones)
	See "A" card listing for signal conditioning cards that are available

System 10 Multi-Channel Signal Conditioning & Data Acquisition System

System 10 Specifications:

Physical

Mounting Power	All mainframes are RACK- or PANEL-MOUNTABLE; Rackmount Kits are available for all models less than 19" wide; contact the factory for precise panel cutout dimensions required by any given model
Requirements	90-130 or 180-260 VAC (47.63 Hz) standard for all mainframes. Maximum amperage varies with mainframe "family": 0.5 amp for "10KU's" (50 W typical); 2 amps for "10K1," "10K2," and "10K4T" families (100 W typical); and 3 amps for all "B-sized" mainframes (100 W typical). Optional 12-28 VDC external power available for certain "A-sized" mainframes
Environmental	**Operating Temperature Range:** +5°C to +50°C (+41°F to +122°F) **Operating Relative Humidity:** 95% maximum (noncondensing)
Internal Scan Rate	Typically 2500 to 3000 channels per second, depending on the mainframe's CENTRAL PROCESSOR model and the number and "types" of channels being scanned; this rate includes all internal numeric processes (linearization, "y = mx + b" scaling, limit decisions, cross channel computations, etc.)
A/D Resolution	16-bit (0.0015% of full scale); for all Conditioner Cards, measurement resolution is determined by the user during system calibration
Filtering	Multiple low-pass active analog filter per channel (see *Conditioner Cards Catalog* for specific cards); additional digital smoothing function per channel with individually selectable quieting factor
Custom Linearization	58 segments anchored at any of 256 breakpoints to profile the input at any selected position on the curve, for up to eight individual inputs per mainframe; can normally achieve linearity with errors of less than 0.05% of full scale; software included for setup of linearization tables
Overall	0.02% of full scale typical, following calibration (see *Conditioner Cards Catalog* for specific cards)
Accuracy Real-Time Clock and Date	Battery backup ensures correct time and date; PLEASE NOTE: System 10 is "2000 Compliant," since a Julian calendar is used to express the date in MM / DD / YY format. The system only requires that "YY" be manually reset at the beginning of each year.
Power-Off Protection	All setup data (calibration, limit values, video page formats, etc.) stored in nonvolatile "Zero-Powered" (battery backed) RAM; configuration "Write Protection" may be enabled and disabled via physical or software switch

RS-232-C Serial ASCII standard at baud rates from 110 through 153.6K; IEEE-488 and RS-422 interfacing optional. Optional Serial Range Extender allows valid RS-232 interchanges for up to 3000 ft.

Models Available

10KU	4 Slot Chassis
10K4TA	10 Slot Chassis
10K1C	20 Slot Chassis
10K2C	20 Slot Chassis w/ display
10KN6	24 Slot Chassis w/ VGA output
10KN7A	24 Slot Chassis w/ integral 9" TFT display
10KN8A	8 Slot Chassis w/ integral TFT display
10KN9	16 Slot Chassis w/ VGA Output

Options

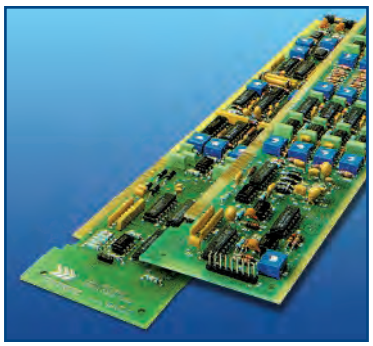
- Keypad Displays
- 12 Channel VFD Display
- Additional 24 Slot Levels
- Multiple Communication Interface Cards
- Bargraph Display Card
- Logic Interface Card
- "A" Conditioning Cards

AC & DC LVDT
Pressure Sensors
Load Cells
Magnetic Pickup

Models Available

LVDT	DS Series	AC LVDT 0.025" to 18.5" - Spring Extended, Unguided & Guided
	DSD Series	DC to DC LVDT 0.1" to 18.5" - Spring Extended, Unguided & Guided
Load Cell	400 Series	25 to 5K Lb ranges, Low Profile
	431M Series	50 to 1K gram Miniature , male threads
	431 Series	5 to 10K Lbs Miniature , male threads
	434AM Series	50 to 1K gram Miniature , female threads
	434A Series	5 to 1K Lbs Miniature , female threads
	441 Series	5 to 50K Lb ranges, Pancake style
Pressure	502A	1 to 15,000 PSI Precision Gage - Absolute
	512	10 to 10,000 PSI General Purpose Gage - Absolute
	515A	300 to 10,000 PSI Low Cost Gage only
	513	0.5 to 10,000 PSI Wet/Wet Differential
Frequency	MP1A	Magnetic Pickup

"A" Size Signal Conditioning Cards for System 10 & SPS6000 Product Family



Models Available

10A9-8C	8-Channel Thermocouple
10A10-4	Quad Isolated Thermocouple
10A11	Thermocouple Output Processor Card
10A15-8	8-Channel Thermistor
10A16-4C	Quad Platinum RTD
10A17-2	Dual High-Voltage Isolation RTD
10A18-4C	Quad 100-Ohm Platinum Linear RTD
10A30-2C	Dual LVDT
10A35	Encoder
10A40	Frequency Input
10A41-2C	Dual Frequency Input
10A60-4C	Quad Voltage
10A61-2	Dual 4-20 mA Input
10A62-8C	8-Channel 4-20 mA Input
10A63-2	Dual Voltage
10A64-8C	8-Channel Voltage
10A65-8	8-Channel Low-Level Voltage
10A68-2	Dual AC RMS
10A69-4	Quad AC RMS
10A73-4	4-Channel 1/4 and 1/2 Bridge Strain Gage
10A74-4C	Quad Strain Gage Track-Hold
10A78	AC Strain Gage
AA14-4F010	Thermocouple
AA30-4	Quad LVDT
AA41-4	Quad Frequency Input
AA72-4	Quad Strain Gage
10A79-4	4-Channel Analog Peak Capture Card
10AAO-4	4 Channel Analog Output Buffer Card
10AAO-8	8-Channel Voltage Output Card
10ACC-4	4-Channel Totalizer Card
10ACT01	Counter/Timer Card
10AEX-20	"A Card" Extender Board
10A72-2C	Enhanced Dual Strain Gage
10AFIFO	First-In-First-Out Buffer Memory Card
10AIO-16	16 Bit Universal Logic I/O Card
10APID	Loop Control Card
10AST	Analog Slot Test Card
10AX-2	Auxiliary Excitation Card

SELECTION GUIDE

Instrument	5D/3Kplus	2000	3000	3700	4000	SPS6000	SYSTEM 10	5M
Parameter								
4-20 ma	●	●	●	●	●	●	●	●
AC Current		●				●	●	
AC LVDT	●		●	●	●	●	●	●
AC mv/V Strain Gage	●		●	●	●	●	●	●
AC Voltage		●			●	●	●	●
DC mv/V Strain Gage	●	●	●	●	●	●	●	●
DC Current		●				●	●	●
DC Low Level	●	●	●	●	●	●	●	●
DC Voltage	●	●	●	●	●	●	●	●
Frequency	●	●	●	●	●	●	●	●
Quadrature		●					●	
RTD		●				●	●	
Thermocouple		●				●	●	●
Thermistor							●	

DAYTRONIC

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Web address: www.daytronic.com

Shipping Point: 1000 New Durham Rd., Edison, NJ 08818