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SDAS 4

Scotia Data Acquisition System



New features include channel naming, resettable alarms, slider control for review of data displays and online secure remote operation for software service, upgrade and option activation.

SDAS 4 Scotia Data Acquisition System

The Scotia Data Acquisition System 4 (SDAS 4) overcomes the problems associated with traditional chart recorders where the only record of the event is the piece of paper produced at the time. Circular and linear charts are notoriously difficult to copy and file. Data analysis and retrieval is often a major issue.

Most data acquisition systems are complicated for the operator to use and often require the use of instruction manuals and setting up by a skilled technician. The SDAS 4 can be set to auto sense the connected transmitter and set the scale accordingly. The operator can be gathering data with just five simple actions from switch on.

The SDAS 4 records pressure (or any process signal) from a 4-20mA transmitter and temperature from a Pt100 probe. It displays and stores the information both digitally and graphically. The graphs or data can be printed for witnessing or included in customer documentation packages. The standard printed chart provides a unique identifier, specific test notes, test equipment serial numbers, date and time of the test graph, your company name and client name with sections for test engineer and witness signature.

Data retrieval and review is assisted by sophisticated easy to use search facilities giving the operator easy access to previous test data.

The SDAS 4 is available in multichannel and networked versions. The multi-channel version can record up to eight 4-20mA transmitters simultaneously these measurements can be displayed either individually or all channels at once. The networked version uses an SDAS 4 Server to provide and gather data from a number of SDAS 4 client devices. This is an ideal solution for any company with a number of fixed testing stations. All of these versions can have options fitted to suit your measurement application. Data is gathered from all channels at a time interval set by the user regardless of the graphic display.

The SDAS 4 can be used within a Scotia Business Database Solution collating such information as job tickets, technician work packs, customer reports, certification, delivery tickets and invoice generation. These modular systems can be used to reduce manual data entry at all stages of the process.

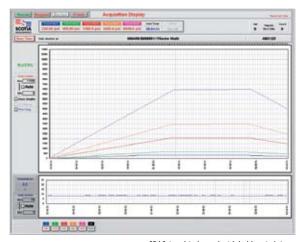
SDAS 4 Features

- SDAS 4 has built in LCD screen with built in keyboard and mouse
- The single suitcase type unit is easily transported
- · Simple steps to start data collection
- Secure data collection that cannot be altered by the user in any way
- Secure data review and transfer facility
- Real time digital and graphic display of pressure and temperature
- Auto scale and auto range or operator set scaling, range and units
- Generates unique test identifier together with your specific reference
- Industry leading operator menu interface for ease of use and data entry
- Quality assured with user password and electronic sensor recognition
- Sensor data stored for quick selection and certification integrity
- Available as multi-channel and networked versions
- Any 4-20mA two-wire transmitter can be used

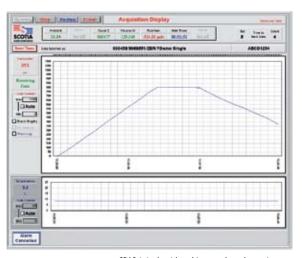








SDAS 4 multi-channel with hold period timer

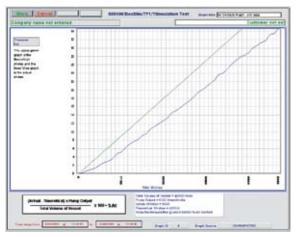


SDAS 4 single with ambient, stroke, volume, rise rate, hold period and cancelled alarm

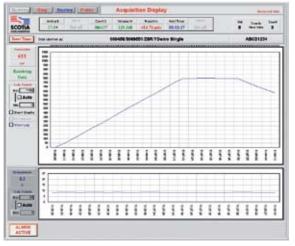
Acquired Data Listing

Data Label		User Reference/ID	Date	Time	Pressure/Temperature		
000446/9069551/ZTP/?Demo		D12343	15/06/04	15:27:35	0		psi
Sim Data 15/06/20	Trans-02	77	0	0	-999.00	8.55	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:36	9		psi
Sim Data 15/06/20	Trans-02	78	0	0	-999.00	8.52	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:37	14		psi
Sim Data 15/06/20	Trans-02	79	0	0	-999.00	8.47	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:38	22		psi
Sim Data 15/06/20	Trans-02	80	0	0	-999.00	8.45	С
000446/9069551/ZT	P/?Demo	D12348	15/06/04	15:27:39	29		psi
Sim Data 15/06/20	Trans-02	81	0	0	-999.00	8.46	С
000446/9069551/ZT	P/?Demo	D12348	15/06/04	15:27:40	34		psi
Sim Data 15/06/20	Trans-02	82	0	0	-999.00	8.45	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:41	39		psi
Sim Data 15/06/20	Trans-02	83	0	0	-999.00	8.51	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:42	46		psi
Sim Data 15/06/20	Trans-02	84	0	0	-999.00	8.49	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:43	55		psi
Sim Data 15/06/20	Trans-02	85	0	0	-999.00	8.49	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:44	65		psi
Sim Data 15/06/20	Trans-02	86	0	0	-999.00	8.45	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:45	75		psi
Sim Data 15/06/20	Trans-02	87	0	0	-999.00	8.45	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:46	87		psi
Sim Data 15/06/20	Trans-02	88	0	0	-999.00	8.54	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:47	98		psi
Sim Data 15/06/20	Trans-02	89	0	0	-999.00	8.48	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:48	110		psi
Sim Data 15/06/20	Trans-02	90	0	0	-999.00	8.53	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:49	122		psi
Sim Data 15/06/20	Trans-02	91	0	0	-999.00	8.45	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:50	134		psi
Sim Data 15/06/20	Trans-02	92	0	0	-999.00	8.48	С
000446/9069551/ZT	P/?Demo	D12343	15/06/04	15:27:51	146		psi
Sim Data 15/06/20	Trans-02	93	0	0	-999.00	8.49	С
000446/9069551/ZTP/?Demo		D12343	15/06/04	15:27:52	157		psi
Sim Data 15/06/20	Trans-02	94	0	0	-999.00	8.47	С
	000446/9069551/ZTP/?Demo				167		psi
	P/?Demo	D12343	15/06/04	15:27:53	10/		psi
	P/?Demo Trans-02	D12348 95	15/06/04	15:27:53	-999.00	8.48	C
000446/9069551/ZT	Trans-02					8.48	
000448/9069551/ZT Sim Data 15/06/20	Trans-02	95	0	0	-999.00	8.48 8.54	С

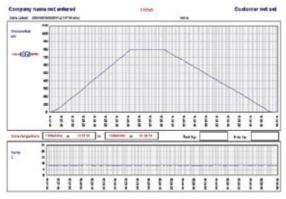
SDAS 4 stored data printed values



SDAS 4 on-screen air content calculation



SDAS 4 single with ambient, stroke, volume, rise rate, hold period and active alarm



SDAS 4 printed graph



SCOTIA - the prime source of instrumentation technology

OPTIONS

The following options can be added to the standard SDAS 4 system. The SDAS 4 system is modular in construction and all options can be retrofitted.

- Multichannel eight process signals. (01) Ambient temperature indication. (02)
- Magnetic sensor type counter or flowmeter allows volume calculations to be performed. (03)
- Stroke counter input via microswitch allows volume calculations to be performed. (04)
- Rate of rise/fall indicator where a test calls for a set rate this can be indicated for ease of operator control. (05)
- Onboard calculation and graphing of air inclusion (06) Requires option (03) to operate.
- Layering allows consecutive graphed events to be compared by overlaying and is used for the verification of relief valves. (07)
- Variable logging rate whilst logging. (08) Variable data print interval. (09)
- Export of Graph picture. (JPEG) (10) Export text file of data at test finish. (11) Hold period timer. (12)
- Test event log activate. (13) External alarm on rising or falling set point. (14) Adjust display resolution. (15)
- Test summary certificate. (16) Torque version. (24) Review software. (25)

SPECIFICATIONS

Input Sensor	Any 4-20mA two wire transmitter. Scotia or customer supply, embedded serial device allows auto range and selection. Active or passive loop configuration. Up to 8 channels.				
Excitation voltage	24V fused @125mA				
Temperature probe	Pt100 (4 wire)				
Temperature resolution	0.1°C				
Temperature accuracy	0.2°C				
Logging interval	One second and upwards				
Uncertainty in measurement	Sensor + 0.0001%				
Resolution	One part in 60000				
Monitor	Built in LCD screen				

Built in Keyboard and Mouse				
User interface	Two x USB, One x Fire Wire			
Network connection	100baseT			
Alarm option	Internal voltage free contact and socket			
Input Voltage	90 to 264Vac, 50 or 60Hz			
Input Current	2.1A @ 110Vac, 1.1A @ 230Vac			
System operating temperature range	-10°C to +40°C			
Internal cooling	Constant positive airflow			
Case size	Width 320 Height 180 Depth 430			
Weight	6.7kg			
Software	Scotia Data Acquisition System Database Program			

The SDAS family of products all use the same ground breaking software:

SCOTIADATABOX for data acquisition using a separate PC or laptop • Scotialogger 4 for onsite pressure testing
Scotia Underwater Datalogging Sytem (SUDS) for pipeline verification subsea
The SDAS range of instruments is designed and built by Scotia Instrumentation Ltd.

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