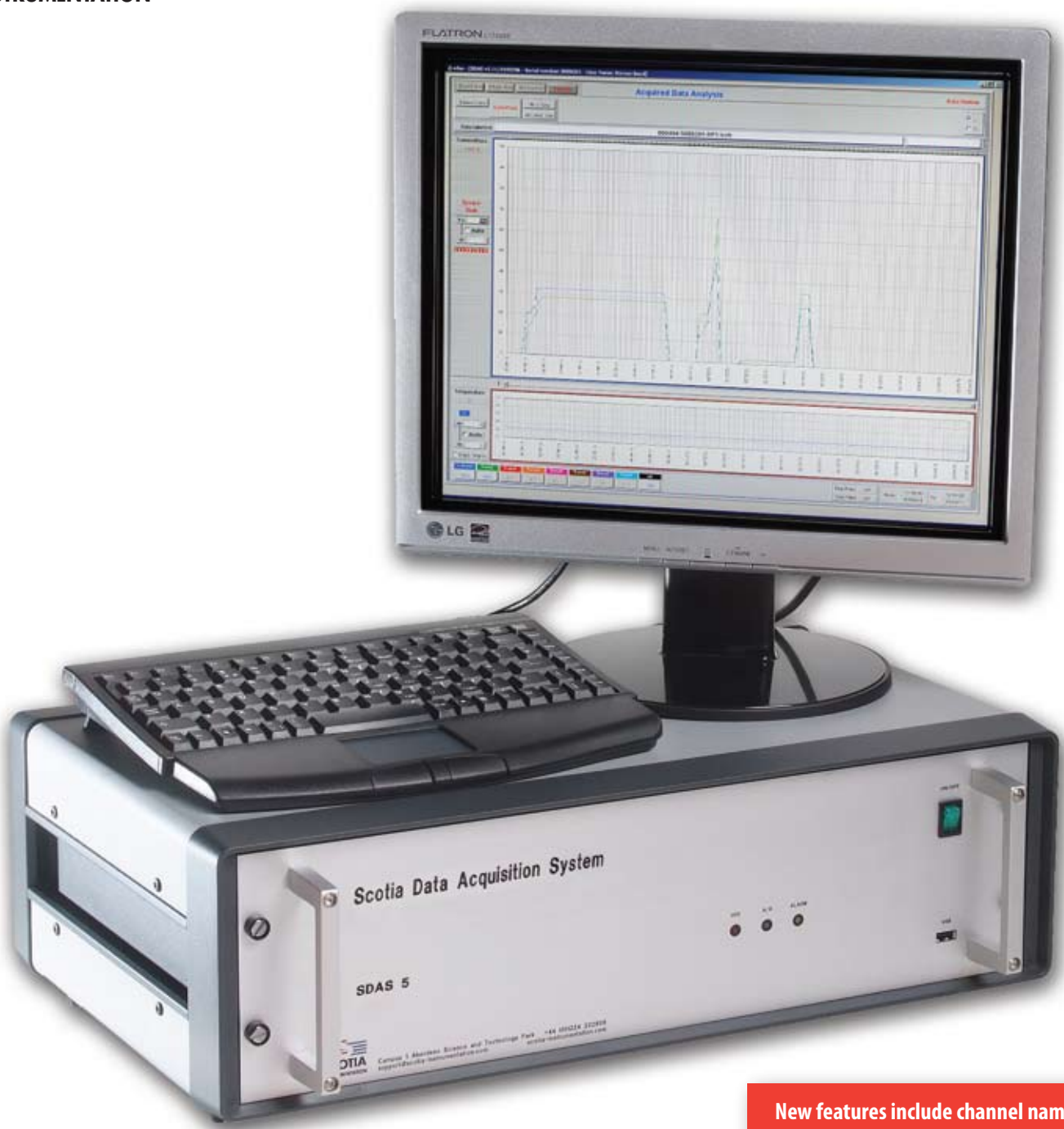




SDAS 5

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 5 Scotia Data Acquisition System

The Scotia Data Acquisition System 5 (SDAS 5) 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 5 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 5 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 5 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 5 Server to provide and gather data from a number of SDAS 5 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.

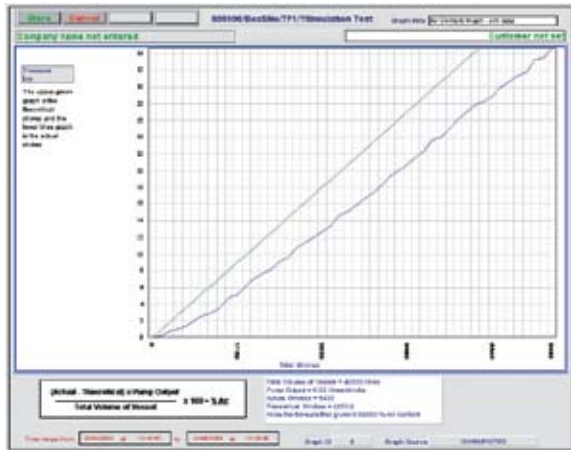
The SDAS 5 can be used within a Scotia Business Database Solution collating such information as job tickets, technician work packs, customer reports, certification, delivery tickets and invoice generation. These modular systems can be used to reduce manual data entry at all stages of the process.

SDAS 5 Features

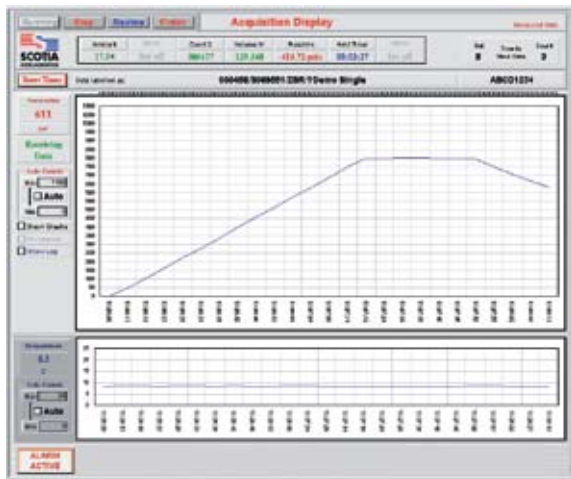
- SDAS 5 options include built in 7" screen in the front panel and wireless keyboard and mouse
- Simple steps to start data collection
- Secure data collection that cannot be altered by the user in any way
- Secure data review and transfer facility
- Real time digital and graphic display of pressure 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, 19" rack or case mounting and networked versions
- Any 4-20mA two-wire transmitter can be used



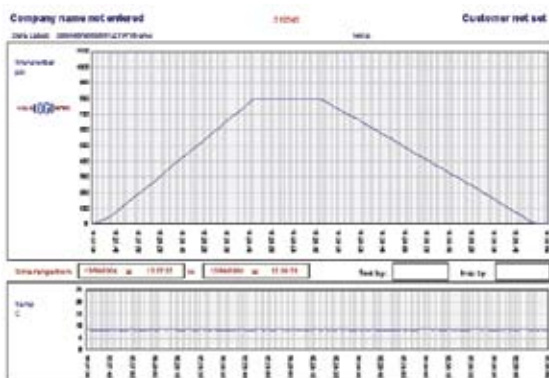
SCOTIA - the prime source of instrumentation technology



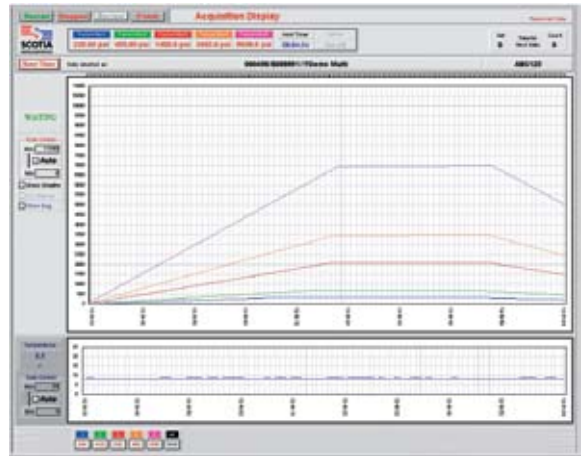
SDAS 5 on-screen air content calculation



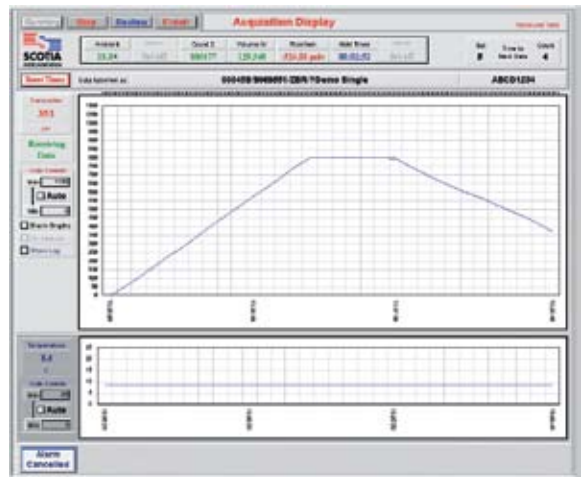
SDAS 5 single with ambient, stroke, volume, rise rate, hold period and active alarm



SDAS 5 printed graph



SDAS 4 multi-channel with hold period timer



SDAS 5 single with ambient, stroke, volume, rise rate, hold period and cancelled alarm

Acquired Data Listing

Data Label	User Reference/ID	Date	Time	Pressure/Temperature
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:35	0 psi
Sim Data 15/06/04	Trans-02	77	0	-999.00 8.55 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:36	9 psi
Sim Data 15/06/04	Trans-02	78	0	-999.00 8.52 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:37	14 psi
Sim Data 15/06/04	Trans-02	79	0	-999.00 8.47 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:38	22 psi
Sim Data 15/06/04	Trans-02	80	0	-999.00 8.46 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:39	29 psi
Sim Data 15/06/04	Trans-02	81	0	-999.00 8.46 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:40	34 psi
Sim Data 15/06/04	Trans-02	82	0	-999.00 8.45 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:41	39 psi
Sim Data 15/06/04	Trans-02	83	0	-999.00 8.51 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:42	46 psi
Sim Data 15/06/04	Trans-02	84	0	-999.00 8.49 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:43	55 psi
Sim Data 15/06/04	Trans-02	85	0	-999.00 8.49 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:44	65 psi
Sim Data 15/06/04	Trans-02	86	0	-999.00 8.45 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:46	75 psi
Sim Data 15/06/04	Trans-02	87	0	-999.00 8.45 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:46	87 psi
Sim Data 15/06/04	Trans-02	88	0	-999.00 8.54 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:47	98 psi
Sim Data 15/06/04	Trans-02	89	0	-999.00 8.48 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:48	110 psi
Sim Data 15/06/04	Trans-02	90	0	-999.00 8.53 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:49	122 psi
Sim Data 15/06/04	Trans-02	91	0	-999.00 8.45 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:50	134 psi
Sim Data 15/06/04	Trans-02	92	0	-999.00 8.48 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:51	146 psi
Sim Data 15/06/04	Trans-02	93	0	-999.00 8.49 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:52	157 psi
Sim Data 15/06/04	Trans-02	94	0	-999.00 8.47 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:53	167 psi
Sim Data 15/06/04	Trans-02	95	0	-999.00 8.48 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:54	179 psi
Sim Data 15/06/04	Trans-02	96	0	-999.00 8.54 C
000449/S089551/ZTP70emo	D12343	15/06/04	15:27:55	191 psi

SDAS 5 stored data printed values

OPTIONS

The following options can be added to the standard SDAS 5 system. The SDAS 5 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) • SDAS 5 Optional built in 7" screen mounted in the front panel.

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.	Mouse	USB
Excitation voltage	24V fused @125mA	User interface	Two x USB, One x Fire Wire
Temperature probe	Pt100 (4 wire)	Network connection	100baseT
Temperature resolution	0.1°C	Alarm option	Internal voltage free contact and socket
Temperature accuracy	0.2°C	Multichannel option	Onboard additional connections
Logging interval	One second and upwards	Input Voltage	90 to 264Vac, 50 or 60Hz
Uncertainty in measurement	Sensor + 0.0001%	Input Current	2.1A @ 110Vac, 1.1A @ 230Vac
Resolution	One part in 60000	System operating temperature range	-10°C to +40°C
Monitor	17" LCD, options include, built in 7" screen on the front panel or 19" rack mounting	Internal cooling	Constant positive airflow
Keyboard	USB	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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