ABB Control Technologies

ABB ScreenMaster paperless recorders
Versatile recording anywhere

Power and productivity
for a better world™

ABB ScreenMaster paperless recorders
ABB's ScreenMaster paperless recorders provide the reliable, cost effective and secure solution for paperless data recording and analysis

ABB's ScreenMaster paperless recorder family provides a solution for every recording application. Whether you want a field mountable device that can be installed anywhere, a multipoint device for a comprehensive overview of your process, or slick and easy operation using the latest touchscreen technology, ABB's ScreenMaster recorders offer a versatile, secure and proven alternative to traditional paper-based devices.

Features include:
– High specification 21 CFR Part 11 compliant data security
– High visibility process displays
– Remote access and operation via Ethernet
– Hose down protection to IP66 & NEMA 4X
– Automated process data management
– Flexible recording capability including alarms, totalizers, math and batch recording
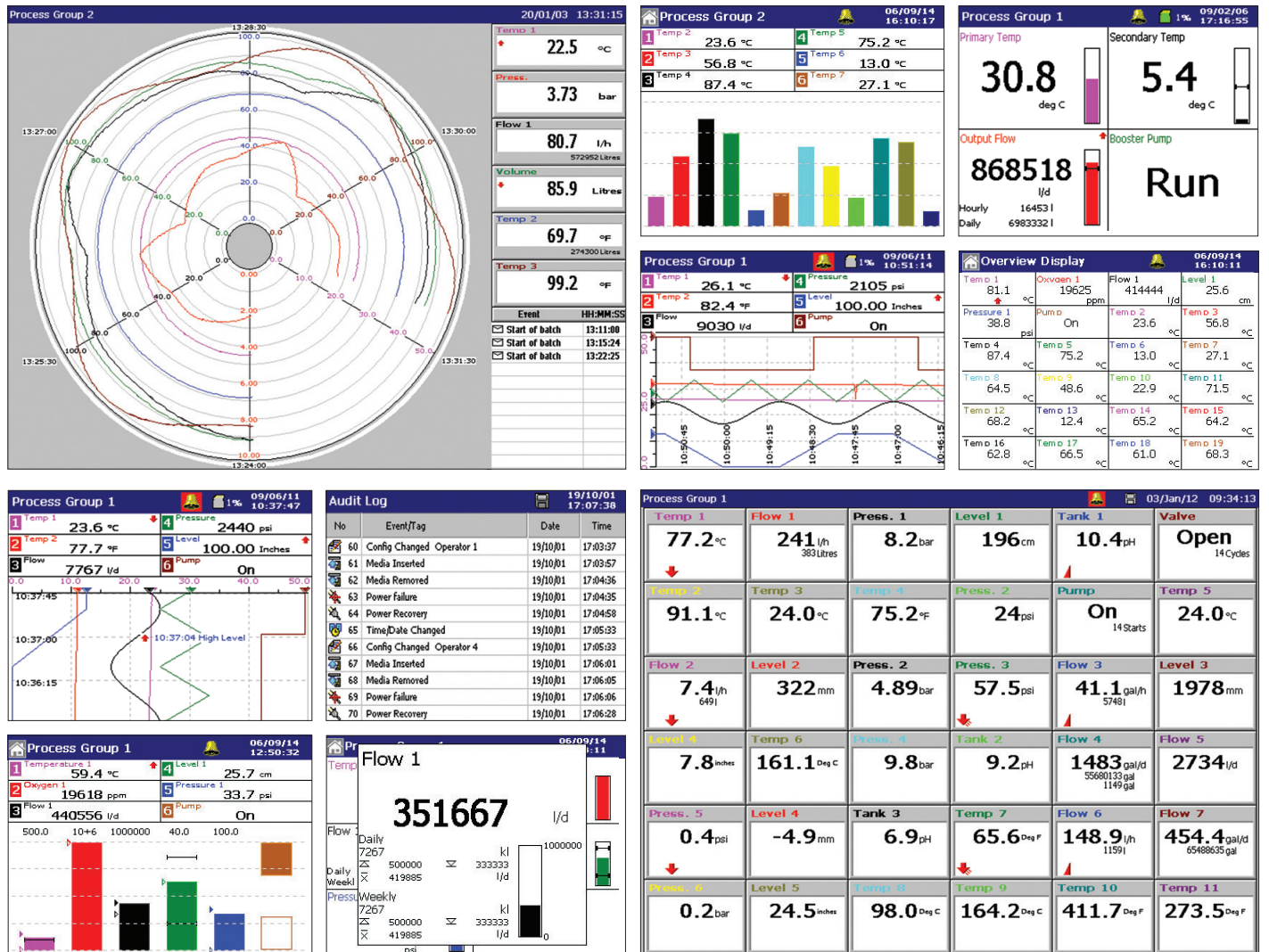– AMS2750 compliant input accuracy

Simple, tough and versatile, the ScreenMaster range gives you a comprehensive solution for your data recording needs

Powerful yet simple

Setting up and operating a ScreenMaster recorder is easy. A simple menu-based interface takes the hard work out of configuration and makes it easy to find and view your process data, with multiple display formats offering a wide choice of viewing options.

Suitable for even the most arduous environments

Protected to NEMA 4X and IP66 as standard, ScreenMaster recorders can be installed next to the process in even the wettest or grimiest conditions, giving you local access to your information at your fingertips.

Secure, precise, reliable recording

Flexible recording capability
A wide range of features give ScreenMaster recorders the flexibility to meet the requirements of almost any recording application.

Flow recording
Flow totalizers enable instantaneous flow rates to be totalized and recorded. An automatic reset capability enables reports of daily, weekly, monthly flow volumes to be generated and alarms to be raised if predefined flow limits for a given time period are exceeded.

Powerful maths
Mathematical functions such as averages and deviations can be calculated using ScreenMaster's math and logic option. Results of math calculations can be displayed, recorded and used to drive alarms and totalizers.

Batch recording
For batch processes, ScreenMaster's batch recording option allows data including batch numbers and product type information to be recorded alongside process data. With ABB's DataManager Pro software, collected batch records can be rapidly displayed by searching for their batch number or batches with common attributes identified.

The highest levels of data protection
Every model in the ScreenMaster range incorporates the highest levels of protection against the accidental loss of valuable process data.

Multiple users can be configured, each with individual user name, password and access rights. A comprehensive audit log records configuration changes, calibration changes, system events and many other items key to data security. Where applicable, all entries are detailed with operator identification. Operators can securely annotate the chart with comments and signatures.

ScreenMaster's standard complement of security features mean that it is also fully compliant with the requirements of 21 CFR Part 11.

Ethernet communications

It is very simple to connect a ScreenMaster recorder to an existing plant network via Ethernet communications. Once connected, archived data and email facilities become instantly available. Using a modem router or GSM technology, the ScreenMaster's labour-saving Ethernet features can still be used even when a recorder is in a remote location.

Remote process monitoring

Remote access to a ScreenMaster is possible via the use of any standard web browser. Detailed real-time information is available for current alarm and totalizer conditions, memory card status and many other key process details. For an on-line demonstration of this feature enter http://217.46.239.73 in to the address bar of your web browser.

Email notification

Keep up to date with the latest process alarms or critical process events with email notifications which can be automatically sent to your PC or smartphone. The same technology can also be used to provide routine performance updates, giving you even greater power over your process.
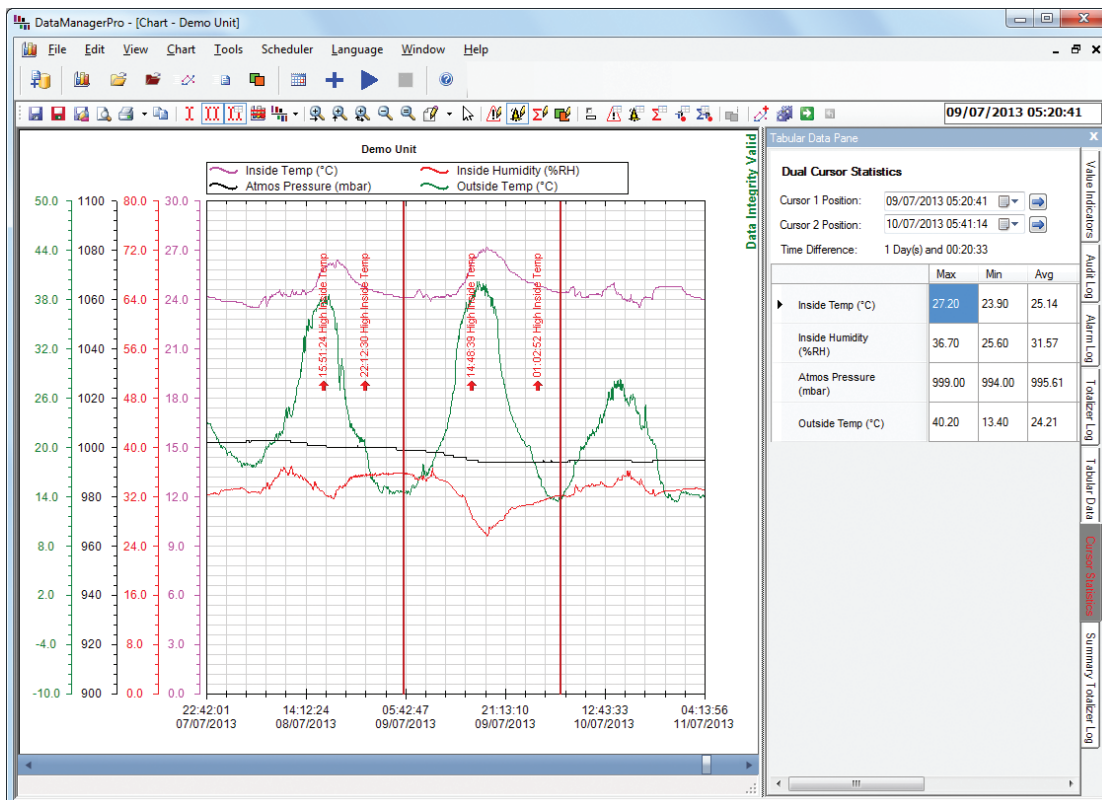
Real-time data communication

Via the use of MODBUS TCP or RTU protocol, a ScreenMaster recorder can communicate the process values being monitored to a DCS, SCADA, PLC or other similar system. Alternatively, data values can be communicated to a ScreenMaster for display to the operator and secure logging of the data.

DataManager Pro

ABB's DataManager Pro advanced data review software opens up a raft of new possibilities for interrogating and presenting recorded data. The software creates a database of recorded data providing secure long-term storage and enabling instant access to data regardless of when or on which ScreenMaster it was recorded.

Via Ethernet communications, DataManager Pro can be integrated with any number of ScreenMaster recorders to create a fully automatic data gathering and storage system. Data is automatically collected from the networked recorders and made available for review.

View
DataManager
Pro Videos

ABB Paperless recorders

SM500F
Field mountable paperless recorder

The SM500F is the world's first field mountable videographic data recorder. Featuring seven process inputs, twelve recording channels and available with wall, panel and pipe mounting options, it provides a truly simple recording solution that can be used anywhere, anyhow and by anyone. Its fully sealed IP66 and NEMA 4X enclosure means it is ideal for use in even the most hostile environments, including hosedown and dusty applications.

**View
SM500F video**

RVG200
Paperless recorder

The RVG200 recorder takes the established operating and security benefits of the ScreenMaster range one step further. Features include touchscreen 'swipe' operation, front and rear USB ports for connecting peripheral devices, including a barcode scanner and keyboard, and Ethernet and RS485 communications.

Up to 24 process signals can be connected to the RVG200's analog inputs or transferred to it via digital communications.

SM3000
Multi-point paperless recorder

Using the SM3000, up to 36 channels can be recorded, with data able to be arranged in a variety of views to provide users with a tailored view of their process. Six process groups are provided, allowing channels to be grouped together and individual displays created for different processes.

Process data can be easily viewed on the SM3000's large 31cm (12.1in) display in a wide variety of formats, including a circular chart and a combined overview format showing all six process groups.

Product Selection Guide

Standard ✓

Optional ●

Model	SM500F	RVG200	SM3000
General features			
Display	120mm (4.7 in) TFT Mono STN or 140mm (5.7 in) TFT	140mm (5.7 in) TFT	310mm (12.1 in) TFT
Operator interface	Tactile keys	Touchscreen	Tactile keys
Internal memory	64MB Flash	256MB Standard 2GB Optional	8MB Flash
Memory card	SD	SD	Compact Flash
Number of software recording channels	12	24	36
Process groups	2	6	6
USB		✓	
Process inputs			
Universal analog / Digital inputs	1 to 7	6, 12, 18 or 24	Up to 36
2 wire transmitter power supply	2 loops optional	12 optional	2 loops standard 8 optional
Additional I/O			
Relays	1 standard, 2 optional	1 standard, 24 optional	24 optional
Digital inputs		10 optional	24 optional
Digital outputs		12 optional	24 optional
Analog outputs		12 optional	8 optional
MODBUS RS485	●	●	
Ethernet	●	✓	✓
Advanced processing			
Alarms	48 (4 per channel)	96 (4 per channel)	144 (4 per channel)
Totalisers	24 optional (2 per channel)	96 optional (2 per channel)	72 (2 per channel)
Advanced math / Logic	●	●	●
21 CFR Part 11 compliant security	✓	✓	✓
Batch recording	●	●	●
Physical attributes			
IP Rating	NEMA 4X & IP66	NEMA 4X & IP66	NEMA 4X & IP66
Panel cut out	138mm x 138mm (5.43 in x 5.43 in)	138mm x 138mm (5.43 in x 5.43 in)	281mm x 281mm (11.06 in x 11.06 in)
Power supply	85-265V ac or 10-36V dc	Combined 100-to 240V ac and 24V dc	85-265V ac or 24V dc
Overall size	144mm x 144mm x 79mm (5.67 in x 5.67 in x 3.1 in)	144mm x144mm x 175mm (5.67 in x 5.67 in x 6.9 in)	288mm x 288mm x 245mm (11.34 in x 11.34 in x 10 in)
Mounting options	Panel, Wall or Pipe	Panel	Panel

Contact us

To find your local ABB contact visit:
www.abb.com/contacts

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