S551

Portable Display and Data Logger

.SUTO

Be smart. **Measure it.**

AUTO DETECT
SDI or Modbus-based SUTO sensors

VERSATILE CONNECTION
Up to 24 sensors inputs

LTE / 4G MODEM
Access from world wide

TOUCH SCREEN
5" large color LCD

TIGHT PROTECTION
IP65

BACK-UP POWER
Battery as back-up power

Benefits

- Easy to use and cost-effective data logging solution at the point of use.
- S4A software for data analysis and remote connection via 4G / LTE Modem
- Connectable sensors for all required measurement tasks
- Up to 24 inputs through extension boxes and Modbus
- Third-party sensors can be easily connected

On site Logging

- Ultra portable and robust design to perform measurement tasks and audits on site
- High resolution 5" color touch screen interface, making the operation as simple as possible.
- Back up battery ensures continuous measurement and prevents data loss during power glitches and cuts.

Plug & Play

- With a few settings, the data logger is ready for operations with virtually unlimited memory size.
- No time consuming configuration and programming is required. Just connect the sensor and start the recording.
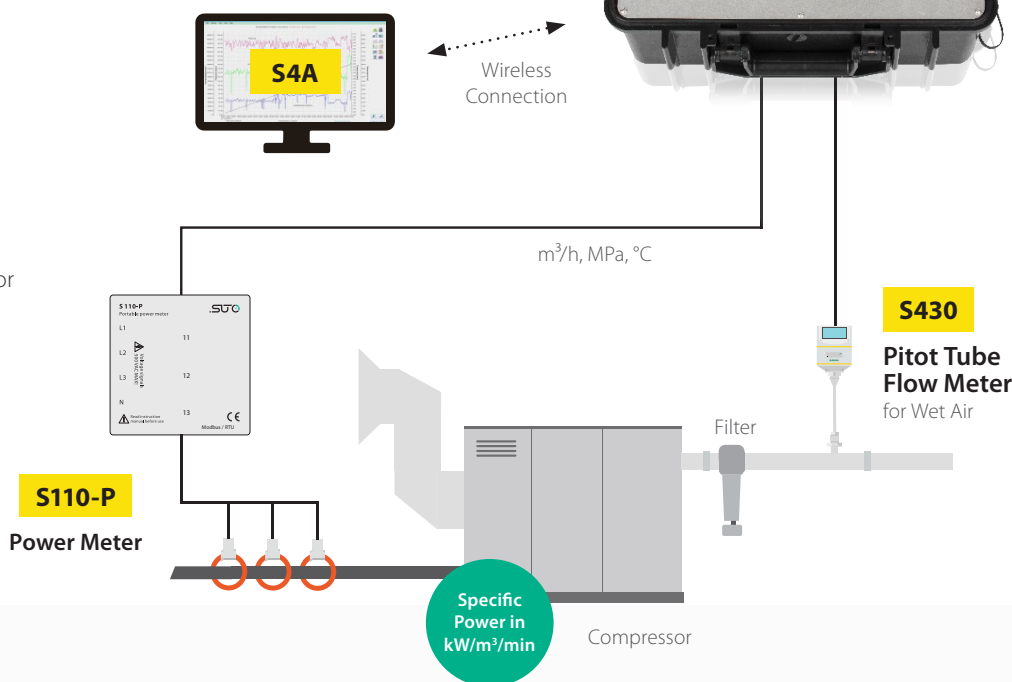
Optional Remote Connection

- Integrated USB port for 4G dongle connection outside the casing.
- Can be easily connected to the S4A Software and monitored remotely, no longer dependent on a Wi-Fi connection.

Compressor Efficiency Test

Knowing your Compressor Efficiency is the first step for your energy saving requirements

S551

S4A

Wireless Connection

m³/h, MPa, °C

S430
Pitot Tube Flow Meter
for Wet Air

Filter

S110-P
Power Meter

Specific Power in kW/m³/min

Compressor

S551 Portable Display and Data Logger

168.5mm
374.5mm
268.5mm

The S551 Portable Display and Data Logger is the perfect tool for compressed air service engineers as well as compressed air experts.
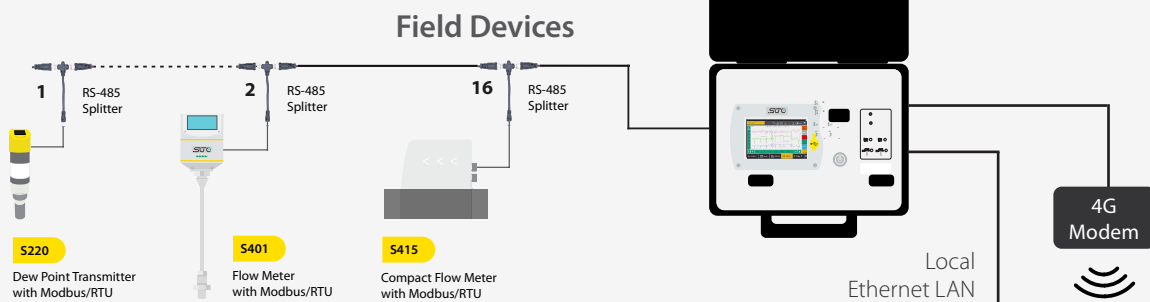
Due to it's compact design and the integrated battery, on-site measurements are carried out most efficient user friendly. From simple dew point spot check up to identifying insufficient compressor systems, the S551 is the tool to make these measurements.

Remote Data Analysis

The S551 is capable of sending measurement data and status information to a remote server through the Internet. This allows users to monitor the system remotely. The illustration below shows the principle setup.

Data Logging

Field Devices

1   RS-485 Splitter
2   RS-485 Splitter
16 RS-485 Splitter

S220
Dew Point Transmitter with Modbus/RTU

S401
Flow Meter with Modbus/RTU

S415
Compact Flow Meter with Modbus/RTU
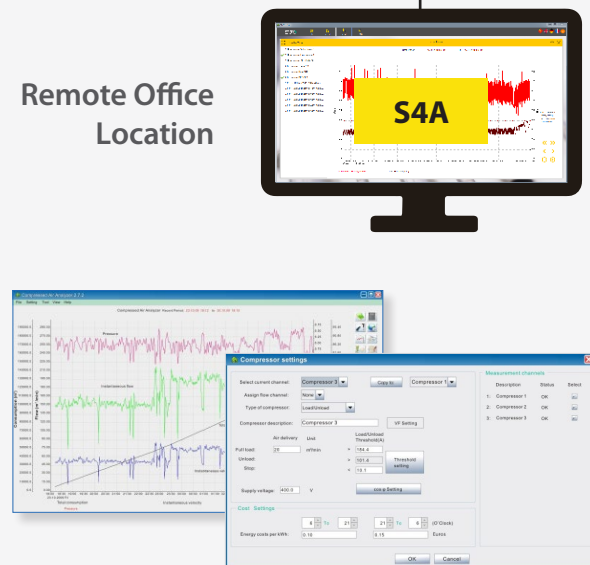
4G Modem

Local Ethernet LAN

Data Analysis

Through the free SUTO S4A software recordings are down- loaded to the PC via USB, LAN or wirelessly using the LTE/4G Modem. The basic analysis can be done in S4A.

For more sophisticated compressor analysis, the SUTO CAA software (incl. in S551) offers many advanced features such as:

- Performance statistics of compressors (efficiency, air delivery, load/unload cycles)
- Leakage analysis
- Report generation
- and more...

Comparisons with baseline measurements from last year or last month help to identify system changes.

Remote Office Location

S4A

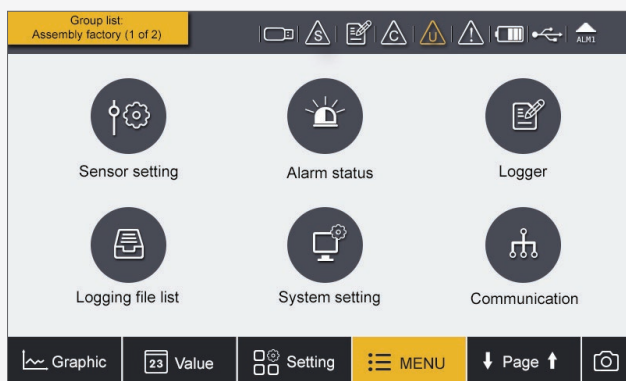# Versatile Connections and Sensor Inputs

- Connectable sensors for all required measurement tasks (air flow, air consumption, power consumption, pressure, temperature and many more)
- Up to 24 inputs through extension boxes and Modbus
- Third-party sensors can be easily connected

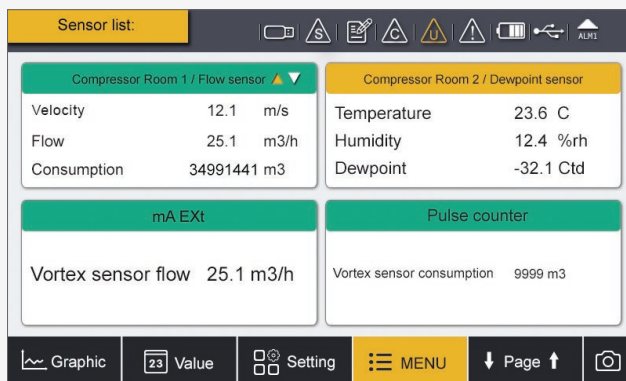Industrial quick connectors allow a plug & play setup and ensure a reliable sensor connection.

Industrial Ethernet Port for LAN connections

User Friendly Interface

The S551 comes with a high resolution 5" color touch screen interface making the operation as simple as possible.
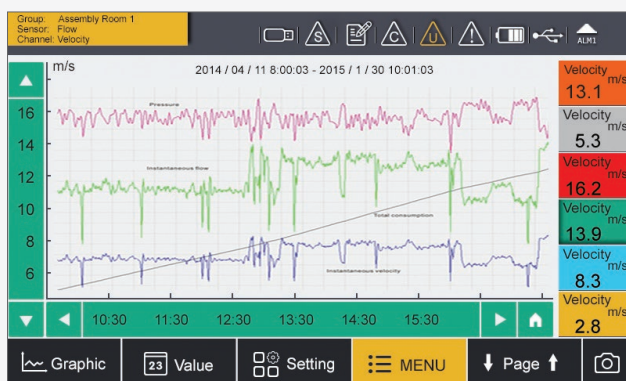
SUTO intelligent sensors are detected automatically on power-up. With a few settings the data logger is ready for operations with virtually unlimited memory size.

Sensor Data Overview

Up to 4 sensors can be viewed on one page and through page scrolling further sensors can be displayed.
This makes it easy to monitor different sensors at the same time.

Graphic Charts for Quick Analysis

Select which channels you want to view or analyze and the built in graphic analyzer will help you identify problems immediately.

For detailed analysis we recommend using SUTO software S4A, CAA or S4M.

S551 Portable Display and Data Logger

Technical Data

Signal / Interface & Supply

Data logger

Storage	4 GB, up to 100 million values
Sampling rate	The minimum time interval is 1 second

Digital input

Interface	2 x SDI connectors, 2 x Modbus/RTU connectors
Update rate	Value updated every 1 sec
No. of connectable	2 x SDI sensors
Sensors	16 x Modbus/RTU sensor

Analog input

Signal	Analog (0 ... 20 mA, 4 ... 20 mA, 0 ... 1 V, 0 ... 10 V), Pulse
Burden	max. 250 Ohm
Update rate	Value updated every 1 sec

Fieldbus output

Protocol	Modbus/RTU, Modbus/TCP
Update rate	Value updated every 1 sec

Other outputs

Communication Interface	4G/LTE (optional)
Purpose	View the online measurement values, read out the logging files remotely through S4A software and USB 4G dongle

Supply

Main power supply	100 ... 240 VAC, 50/60 Hz, 1.4 A

Data interface

Connection	USB micro, LAN (Ethernet)
Purpose	Read logger files & screenshots, show live data
Integrated web server	Remote monitoring (LAN)

General data

Configuration

PC Software	S4C-Display (via USB or LAN)

Display

Integrated touch screen	5" high resolution graphic display, 800 x 480 pixels with touch interface

Material

Housing	PC + ABS

Miscellaneous

Electrical connection	2 x M12 (5 pole) for SDI; 2 x Optional M12 (5 pole) for analog and pulse;2 x M12 (5 pole) for Modbus; 1 x RJ45 Ethernet
Protection class	IP65 (only if the suitcase lid is closed and locked)
Weight	4 kg

Operating conditions

Operating temperature	0 ... +50 °C
Storage humidity	< 90 %
Storage temperature	-20 ... 50 °C
Transport temperature	-20 ... 50 °C

Please use the following tables to assist in placing your order with our sales staff.

	Data logger	
	P560 5100	S551-P4, Portable Display and Data Logger, 4 digital input channels, power cord, USB cable, S4A software, CAA software
	P560 5101	S551-P6, Portable Display and Data Logger, 4 digital input channels and 2 analog, power cord, USB cable, S4A software, CAA software
	A1670	USB 4G dongle for S551/S600, including S4A software
	Flow sensors	
	S601 0401	S401, 300 mm Shaft, insertion type thermal mass flow meter, max measuring range, DN15 ... DN300, Modbus/RTU, including 5 m cable with connector to S551
	S601 0430	S430, 220 mm Shaft, insertion type Pitot tube flow meter for wet air, DN25 ... DN250, Modbus/RTU, including 5 m cable with connector to S551
	Dew point sensor	
	S601 0215	S215 Dew Point Transmitter, -20 ... +50 °C Td, Measuring chamber with quick coupling, 5 m cable with connector to S551
	S601 0211	S211 Dew Point Transmitter, -60 ... +20 °C Td, Measuring chamber with quick coupling, 5 m cable with connector to S551
	S601 0220	S220 Dew Point Transmitter, -100 ... +20 °C Td, Measuring chamber with quick coupling, 5 m cable with connector to S551
	Pressure sensors	
	S694 1886	Pressure Transmitter, 0 ... 1.6 MPa(g), 4 ... 20 mA including a 5 m cable with connector to S551 (works only on S551-P6)
	S694 0356	Pressure Transmitter, 0 ... 4.0 MPa(g), 4 ... 20 mA including a 5 m cable with connector to S551 (works only on S551-P6)
	S694 1887	Pressure Transmitter, 0 ... 1.6 MPa(g), Modbus/RTU including a 5 m cable with connector to S551 (works on S551-P4 & P6)
	S694 1888	Pressure Transmitter, 0 ... 4.0 MPa(g), Modbus/RTU including a 5 m cable with connector to S551 (works on S551-P4 & P6)
	Amp sensor	
	S554 0156	Electrical Current Transmitter, 1000A, 100 mm diameter, including connector to S551
	S554 0157	Electrical Current Transmitter, 3000A, 150 mm diameter, including connector to S551
	Temperature sensor	
	S693 0005	Temperature Transmitter, -50 ... +200 °C, 4 ... 20 mA loop powered, 6 x 150 mm sensor tube, 5 m cable with connector
	A554 6003	Compression fitting, 6 mm, G ½" thread, 0.6 MPa
	A554 6004	Compression fitting, 6 mm, G ½" thread, 1.6 MPa
	Power meter (for 3 phase and single phase measurement)	
	P554 0134	Portable Power and Energy Meter S110-P, Modbus/RTU, including 4 test leads, 4 test clips, 5 m cable with connector to S551
	S554 0160	Electrical Current Transmitter for S110-P, 1000 A, 100 mm diameter, 1.8 m cable, connector to S110-P
	S554 0161	Electrical Current Transmitter for S110-P, 3000 A, 150 mm diameter, 1.8 m cable, connector to S110-P
	S554 0162	Electrical Current Transmitter for S110-P, 100 A, 160 mm diameter, 1.8 m cable, connector to S110-P

Note: For 3 phases power supply 3 Rogowski coils are needed.

Ordering

Please use the following tables to assist in placing your order with our sales staff.

Other sensors / extensions		
	P554 0080	8 channel analog input extension, connectable to S551, including 5 m cable with connector, 2-wire sensors support only
		Note: we offer other two models which supports 3-wire inputs and combination of 2-wire and 3-wire. Please contact the sales.
	A554 3314	Portable Modbus splitter box, with M12 connector
Accessories		
	A553 0103	Extension cable, 5 m, male-female connectors
	A553 0110	Open wires cable, 5 m cable with connector
	A553 0111	Sensor cable, M12, 5 m with connector to S551
	A554 0035	Transport case S551 for sensors and cables, L560 x W450 x H160 mm (internal compartment can be arranged according to your individual sensor requirements)
	A554 0036	Transport case, customized for 1 x S110-P, 3 Rogowski coils, 4 x test leads, 4 x test clips, 1 x S430

* Please contact us for further accessories and details.

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