

DISPLAY AND DATA LOGGER S330 / S331



IIoT

IIoT SUPPORT
Connection to S4M software



Your system values — All displayed and stored in one place



S330 / S331 FEATURES

 <p>IIoT</p>	<p>IIoT SUPPORT Connection to S4M software</p>		<p>TOUCH SCREEN 5" large color LCD</p>
	<p>VERSATILE CONNECTION Up to 16 sensors inputs</p>		<p>TIGHT PROTECTION IP65</p>
	<p>WEB SERVER Access from world wide</p>		<p>DATA LOGGER 100 million values</p>

S330 / S331 OPERATION PRINCIPLE

The universal display and data logger can measure, display and record all relevant parameters (Flow, consumption, dew point, pressure, temperature, power consumption, compressor status etc.) in a compressed air system.

S330 / S331 BENEFITS

- High resolution 5" colour touch screen interface
- All SUTO sensors and compatible third party sensors are connectable
- 16 x Modbus inputs (58 standard or optional 108 Channels)
2 x SDI inputs (20 channels)
2 x Analog and pulse input (4 channels)
Plus 10 virtual channels for calculations like kW/m³/min or Differential pressure
- 2 wall casings available: 4 cable glands or 7 cable glands
- USB interface for data transfer to data stick or PC
- RS-485 (Modbus/RTU) and Ethernet (Modbus TCP) interface to factory automation system
- 10 W sensor power supply (24 VDC)
- Data logger (S331 only): 100 million values
- Alarm monitoring with 2 relay outputs
- Integrated web server for remote monitoring
- Quick set up
- Various options for system extension
- Monitor compressor run time

The SUTO S330 / S331 is a powerful yet cost effective local display, sensor interface and data logging (S331 only) solution for virtually any application. Up to 16 sensors can be connected to a single device allowing local nodes to be setup throughout the factory. With it's easy to use, high resolution 5" touch screen, information from all the connected sensors can be accessed locally making readings easy to access for those on the ground.

Modbus/RTU or Modbus TCP output data can be transmitted into the site's ethernet network allowing information to be viewed in real time via an existing SCADA system or with the simple and easy to use SUTO S4M software. S330 / S331 also provide IoT settings to connect with SUTO S4M software IoT version. Alternately locally logged data can be downloaded onto a USB memory card or directly to a computer through the USB port.

The S330 / S331 can display virtually any parameter from the connected sensors and with it's virtual channels can make calculations to help you measure and monitor efficiency or productivity, simplifying often complex tasks. Alarms can be set on each signal to your preselected parameters helping keep an eye on performance and indicating when there is a problem.

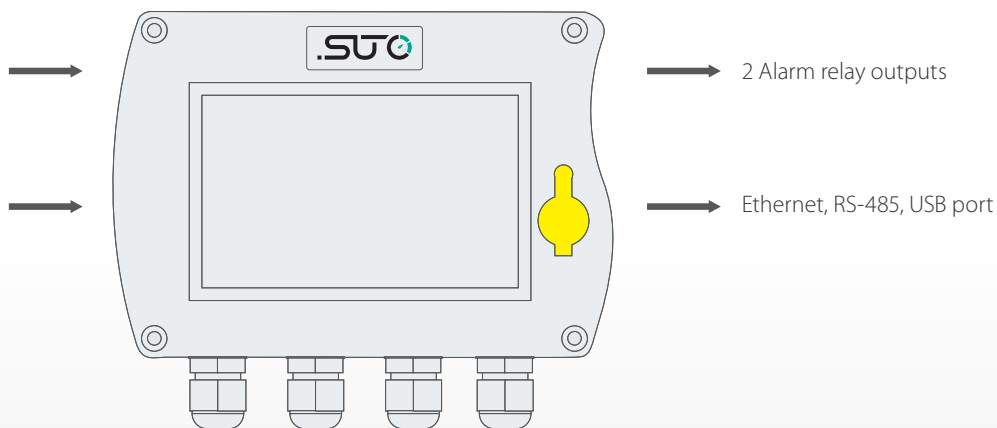
S330 / S331 SYSTEM OVERVIEW

2 digital inputs:

- SDI Sensors (up to 2 SDI sensors)
- Modbus Sensors (up to 16 Modbus sensors)

2 analog inputs (option):

- 0 ... 20 mA, 4 ... 20 mA
- 0 ... 10 V
- Pulse



SUTO sensors are equipped with SDI and / or Modbus interface

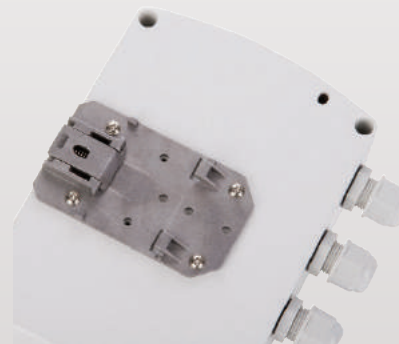
S330 / S331 AVAILABLE VARIATIONS



Panel installation



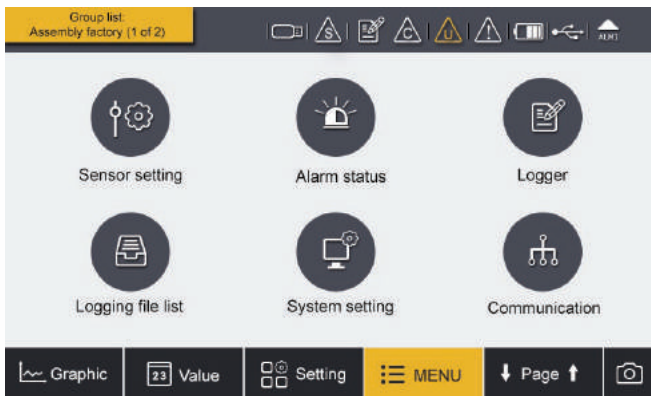
2 different size wall mountable casings



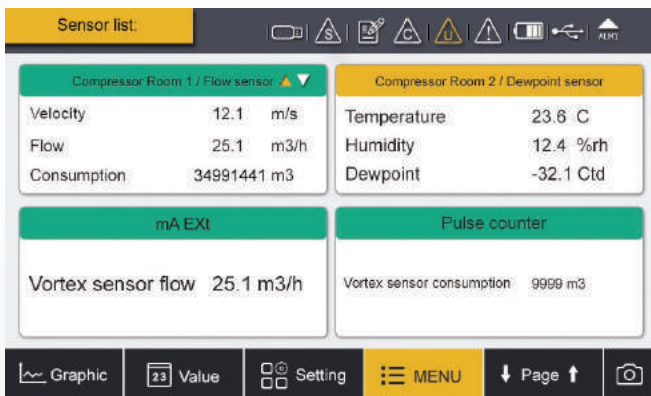
Hat rail option

S330 / S331 TOUCH SCREEN OPERATION

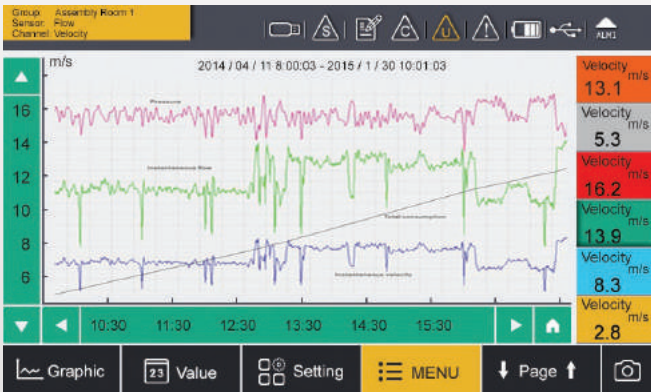
S330 / S331 TECHNICAL DATA



The S330 / S331 comes with a high resolution 5" colour touch screen interface making the operation as simple as possible.



Up to 4 sensors can be viewed on one page and through page scrolling further sensors can be displayed.



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 S4M software.

General Specification	
Casing size	Size: 120 x 173 x 67 mm
Power supply	A: 100 ... 240 VAC, 20 VA B: 18 ... 30 VDC, 20 W
Interface	USB RS-485 Ethernet
Alarm output	2 relay, 230 VAC, 3 A, NC
Sensor inputs	2 x SDI inputs or 1 x SDI and 1 x Modbus input (Modbus input for up to 16 sensors) 2 x analog (option)
Data logger	100 million values (option)
Accuracy	SDI, Modbus: see sensor specs Analog: 0 ... 20 mA: 0.01 mA 0 ... 10 V: 0.01V Pulse: ±1 digit
Display	size: 5" Resolution: 800 x 480 px
Operating temperature	0 ... +50°C
Storage temperature	-20 ... +70°C
Protection	IP65



Back view with connection terminals

SENSORS CONNECTABLE TO S330 / S331

The S330 / S331 has 2 digital inputs, 2 analogue inputs and can connect up to 16 Modbus sensors.

Flow / Consumption sensors



S330 / S331 can power maximum one S450 / S452.
If more than one S450 / S452 is connected a separate power supply has to be added.
(see accessories for S330 / S331)

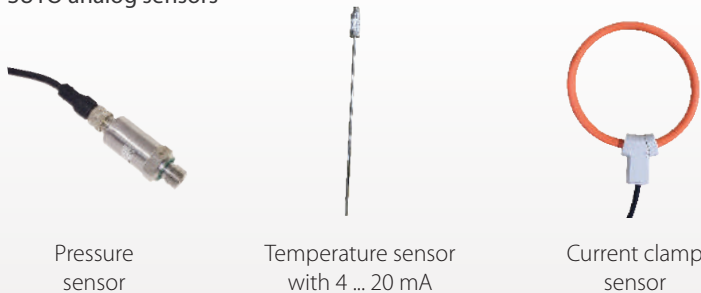
Dew point sensors



Please refer to the detailed sensor data sheet for further information and options.

Inputs for analog sensors (2 channels)

SUTO analog sensors



Pressure sensor

Temperature sensor with 4 ... 20 mA

Current clamp sensor

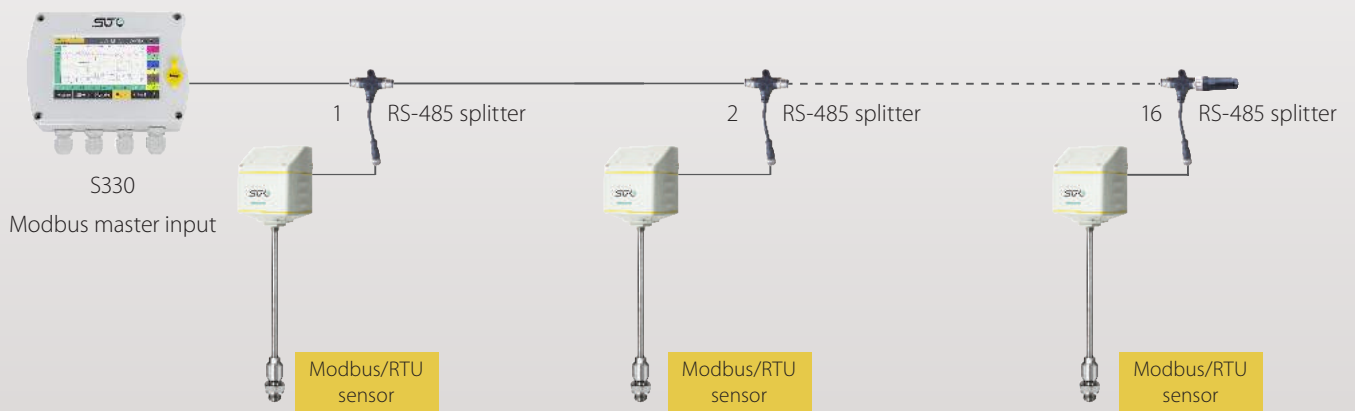
Third party sensors

Following third party sensors are connectable to S330 / S331:

- 0 ... 20 mA, 4 ... 20 mA, 0 ... 1V, 0 ... 10V signals
- Pulse
- Modbus/RTU

Modbus-Master input for Modbus/RTU sensors

The S330 / S331 includes digital inputs for SUTO sensors or Modbus/RTU sensors. In order to connect the Modbus/RTU sensors properly on a RS-485 bus system it's recommended to daisy-chain the sensors to one of the inputs. For this purpose we offer a RS-485 splitter to simplify the connection. Through this method you can add up to 16 sensors to the master input. (In this case additional power supply is required.)



S330 / S331 ORDERING

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



Visit our website or e-mail us:
www.suto-itec.com
sales@suto-itec.com

Order No.	Option	Power supply	Casing	Description
D500 0333				S330, panel version, 2 digital inputs, Ethernet, RS-485, USB
D500 0331				S331, panel version, 2 digital inputs, Ethernet, RS-485, USB, data logger, S4A software
	A			None
A1662	B			2 analogue inputs 0 ... 20 mA + 2 pulse inputs
A1663		A		Power supply 100 ... 240 VAC, 20 VA, 2 relay outputs for alarm
A1664		B		Power supply 18 ... 30 VDC, 20 W, 2 relay outputs for alarm
			A	None
A1665			B	Wall mountable casing with 4 cable glands
A1666			C	Wall mountable casing with 7 cable glands
A1667			D	Wall mountable casing with 3 cable glands + Ethernet
A1668			E	Wall mountable casing with 6 cable glands + Ethernet
			A	None
A1669			B	Hat rail holder (only in connection with wall mountable casing)

Further accessories	
Order No.	Description
Cables	
C219 0055	M12 connector with RS-485 termination resistor, 120 Ω, for Modbus daisy chain termination
A554 3310	M12 RS-485 (Modbus) splitter
A553 0130	USB cable for S330 / S331
A553 0104	Sensor cable 5 m, with M12 connector, open wires, AWG24 (0.2 mm ²)
A553 0105	Sensor cable 10 m, with M12 connector, open wires, AWG24 (0.2 mm ²)
A553 0106	Power cable with mains plug, 1.8 m
A553 0120	Ethernet cable 5 m, RJ45 plug at both ends
A553 0123	RS-485 cable, 3 pole, AWG 24 (per meter)
Converters and gateways (Please contact our customer service for further converter/gateway options)	
A554 0010	RS-485 / Ethernet gateway
A554 0012	RS-485 / Profibus gateway
A554 0013	Modbus/RTU / Modbus TCP gateway
A554 0011	RS-485 repeater
A554 0331	RS-485 / USB converter
Software	
M599 2031	S4M, data acquisition and analyzes software, 50 measuring channels
A1102	Add-on Energy Manager for S4M
Others	
D554 0030	Power meter S110, hat rail mountable, Modbus/RTU
D554 0031	Current meter, 0-20 mA, 8 channels, Modbus/RTU
D554 0032	Pulse meter, 7 channels, Modbus/RTU
A1661	S330 / S331 with 108 Modbus-Sensor-channels [standard is 58]
A554 0007	Power supply wall mountable
A554 0009	Power supply for hat rail
A554 3311	Line filter for EMC protection
A554 3313	Connection board for looping 4-20 mA and pulse signals to PLC, mountable in wall casing A1666 or A1668