S520

Portable Dew Point Meter

.SUTO

Be smart. **Measure it.**

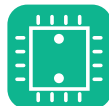| Full Range	-100 ... +20 °C Td
Eco Range	-60 ... +50 °C Td

SMART DEVICE
Dew point prediction

TOUCH SCREEN
Intuitive user interface

PRESSURE SENSOR
Enables various humidity units

DATA LOGGER
Integrated mass storage
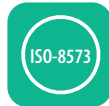
LOW DEW POINT
Measures down to -100 °C Td

CAMERA INTEGRATED
Pictures for better reports

PORTABLE UNIT
Handheld unit within a rugged case

DEW POINT AUDITS
Indication of class on display

- ✅ Easy to use portable meter to measure dew point, temperature and pressure on site
- ✅ Sensor selection according to your needs:
  Sensor A: -100 ... +20 °C Td
  Sensor C: -60 ... +50 °C Td
  both with integrated pressure sensor
- ✅ ISO 8573 class measurements with powerful ISO 8573-1 PDF reporting function
- ✅ Wireless printer for on-site reporting to easily perform audits
- ✅ Unique Measuring chamber with parking function supports fast response times
- ✅ Optional smart features: End value prediction, camera and measurement snapshot

1 Dew Point Value Prediction

The S520 offers a unique dew point end value prediction algorithm as a built-in technology.

Based on the dew point measurement curve our algorithm is able to predict the end value before actually reaching the end value.

This feature enables the user to predict the dew point end value in a minimum amount of time. It helps on-site engineers to save time and to perform faster dew point audits.

Smart Features

Dew point end value prediction is a part of the smart features. With the smart features option, users also get a 5 Megapixel camera and the snapshot function for quick measurement logging.

2 Measurement Snapshot

Take a quick measurement snapshot of the current measurement, add the customer information and easily create a printed report.

All can be done on the device via touchscreen input.

3 Measurement Chamber

The unique measuring chamber with integrated parking function enables users time efficient dew point measurements.

When the instrument is not used, the measuring chamber can be set to parking position. In this state, the sensor is exposed to a desiccant, which keeps the sensor well protected and dry.

When starting the next measurement, the sensor is pre-dried and has therefore an ultra-fast response time, perfect for air audits.

4 Unique SUTO Triple-Sensor

S520 is equipped with the SUTO QCM, the Polymer and an integrated Pressure sensor.

Our QCM sensor is the result of years of high-tech research and development. The sensor was especially designed for low dew point applications where other sensor types fail.

The combination of QCM and the well known Polymer sensor makes the S520 measure accurate over the whole range, from -100 °C Td up to +20 °C Td by switching automatically between the two sensor elements as needed. At the same time the line pressure is measured.

Application: Compressed Air Quality Monitoring On Site

The S520 Portable Dew Point Meter enables more accurate and frequent quality monitoring to operators. Throughout any given day, plant personnel can check the dew point throughout their system, using the S520's detailed metrics and portability to gather useful information from even the least accessible corners of their system.

With the S520, operators can make sure that their compressed air treatment system (air dryers, filters, and drains) is functioning at its absolute peak. If the S520 reveals heightened moisture levels at any point during the routine check, personnel can quickly locate and resolve the issue, reducing instances of clogged filters and dryer problems.

Optional Printer

Wireless printer used to print the measurement results on site. Perfect solution for quick audits.
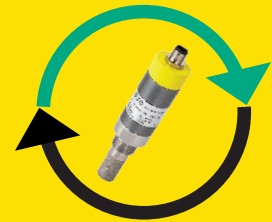
Exchange Service

No Downtime anymore!

The exchange calibration service eliminates down time and enables users to have a seamless record of their dew point measurements.

The user receives in advance a calibrated instrument with calibration certificate and the same instrument settings. The on-site instrument is then switched against the calibrated one and returned to the supplier.

PDF Report Function according to ISO 8573-1

Create powerful PDF Reports on-site according to the ISO 8573-1 standard.

The reports are following the recommendations stated in the ISO 8573-1, additionally customer related data as well as service provider details can be entered on-screen, making it even easier to perform audits and to create meaningful reports.

PDF reports can be created from any recordings on the device and are copied on the fly to a connected USB drive.

The declared Pressure dew point in °C is stated as the measured dew point under actual conditions as well as referring to reference conditions at 20 °C/7 bar(g), as it is required by ISO 8573-1 standard. This is only possible, thanks to the integrated pressure sensor on the S520.

Technical Data

Measurement

Dew point

Accuracy	± 1 °C Td (0 ... 20 °C Td)
	± 2 °C Td (-70 ... 0 / +20 … +50 °C Td)
	± 3 °C Td (-100 ... -70 °C Td)
Selectable units	%rH, °C Td, g/m³, mg/m³, g/m³ atm. , mg/m³ atm. , ppmv, g/kg, °C Td atm.
Measuring range	Sensor A: -100 ... +20 °C Td
	Sensor C: -60 ... +50 °C Td
Repeatability	0.5 °C
Sensor	Sensor A: QCM + Polymer
	Sensor C: Polymer

Pressure

Accuracy	0.5 % FS
Measuring range	0 ... 1.6 MPa (g)
Sensor	Piezo resistive sensor

Temperature

Accuracy	± 0.3 °C
Measuring range	-30 ... +50 °C
Sensor	PT 100

Interface & Supply

Supply

Power supply	USB charger: 5 V, 3 A
	Connector: USB-C
Operating time	8h

Data interface

Connection	USB

* At least 0.3 MPa (g) is needed for the measuring chamber supplied with the instrument. For low-pressure measurements below 0.3 MPa (g) choose the optional bypass measuring chamber A699 3501.

General data

Display

Integrated	3.5" color LCD touch screen

Data Logger

Storage	Integrated mass storage, up to 30 million recorded data sets (4 channels each)

Material

Housing	PC + ABS
Metal parts	Aluminium

Miscellaneous

Protection class	IP30
Approvals	CE
Weight	2.8 kg Complete Set in Transport Case
	0.8 kg S520 Handheld (incl. Sensor & Measuring Chamber)

Operating conditions

Medium	Air, N_2, O_2, Argon, CO_2
	Note: The CO_2 measurements with the A1376 sensor are limited to -40 °C Td.
Medium temperature	-30 ... +50 °C
Medium humidity	0 ... 90 %, no condensation
Operating pressure	-0.1 ... 1.6 MPa (g)*
Ambient temperature	0 ... +40 °C
Ambient humidity	0 ... 80 % rH
Storage temperature	-20 ... +50 °C
Transport temperature	-30 ... 70 °C

S520 Portable Dew Point Meter

Ordering

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

S520 Portable Dew Point Meter

Order No.	Description
P600 0520	S520 Handheld Dew Point Meter with data logger (P560 0520) Including: • Measuring chamber with parking function • 1.5 m PTFE hose 6 mm with quick coupling, USB-OTG memory stick • USB charger with USB-C cable • Certificate of calibration • Transport casing
Measuring range (Sensor unit)	
A1370	-100 ... +20 °C Td Full Range Sensor Unit A, with integrated Pressure Sensor 0 ... 1.6 MPa (g)
A1376	-60 ... +50 °C Td Eco Range Sensor Unit C, with integrated Pressure Sensor 0 ... 1.6 MPa (g)
Wireless printer	
A1374	Without printer
A1372	With wireless printer for measurement printouts on site
Smart feature	
A1375	Without smart features
A1373	With smart features (Measurement snapshot, Dew point end value prediction, Camera)

S520 Accessories

Order No.	Description
A699 3501	By-pass measuring chamber with parking function, 0 ... 1.0 MPa, 6 mm hose quick connector as in- and outlet
A554 0021	Paper rolls for wireless printer

Ordering Example

Example	S520 Handheld Dew Point Mete with data logger, -100 ... +20 °C Td Sensor, Without printer, With smart features
Order Code	P600 0520.A1370.A1374.A1373

Scope of delivery

S520

Unique measuring/parking chamber for fast sensor response

The included transport case protects the instrument. At the same time it holds all accessories.

Memory stick

PTFE hose with quick connect

USB charger with USB-C cable

www.suto-itec.com

www.suto-itec.com   **sales@suto-itec.com**