

S 201 dew point sensor (-60...+20 °C)**Features**

- Dew point transmitter for low dew point applications down to $-60\text{ }^{\circ}\text{C}$
- Long term stability
- Display
- Relay output
- IP65 casing provides robust protection in rough industrial environment
- Very fast response time ensures safe and reliable indication whenever dew points are out of valid ranges
- Can be installed directly into dryers through G 1/2" thread
- High accuracy of $2\text{ }^{\circ}\text{C}$ dew point (see chart below)

The CS-iTEC dew point transmitter **S 201** provides reliable and long term stable dew point monitoring in industrial applications. The newly developed sensor features improved signal and stability in demanding industrial applications.

Drifts caused by temperature changes, dust and aging are eliminated by the electronics providing reliable measurements. Recalibration interval thus could be increased to 2 years.

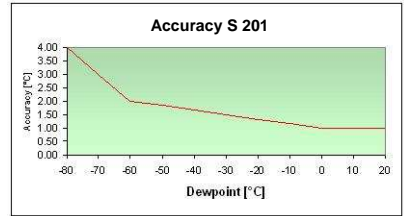
The measured dew point is output via a 4-20 mA signal output. The integrated display shows online measurement values and alarm status. One alarm can be programmed which will activate a relay.

S 201 features a complete dew point meter with sensor, display, keyboard and alarm. The keyboard is placed behind a rubber cover and can be accessed by opening the cover on the top. Via two keys alarms and display features can be set.

Sensor parameters such as analogue output scaling, alarm values, units etc, can be easily changed by using CS-iTEC service kit. This kit is used to connect the sensor to a PC for configuration changes.

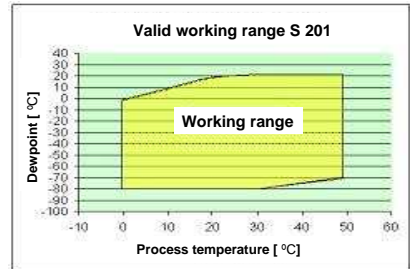
Technical data S 201

Measuring range	-60 ... +20 °C
Accuracy	2 °C dew point (see table right)
Pressure range	-0.1 ... 5.0 MPa
Power supply	12 ... 30 VDC / 100 mA
Ambient conditions	-20 ... 50 °C
Transportation temperature	-30 ... +70 °C
Response time t_{95}	< 30 sec (descending) < 10 sec (ascending)
Output signal	4...20 mA, 3-wire Relay: NC, 32 V / 500 mA
Connector	2 x M12, 5 pole
Casing	PC + ABS
Classification	IP65
Process connection	G 1/2" thread (ISO 228/1)
Sensor protection	Stainless steel sinter filter pore size <30 um
EMC	According to IEC 61326-1

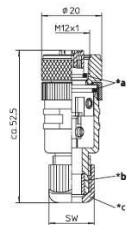


Stated accuracy under following conditions:

- Ambient temperature 23±3°C
- Process temperature 23±3°C
- Ambient humidity <95%, no condensation
- Airflow > 1 l/min at sensor tip

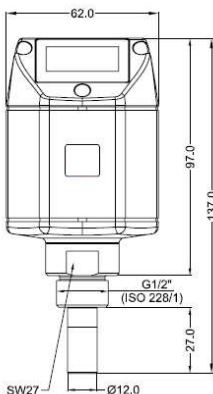


M12 connector

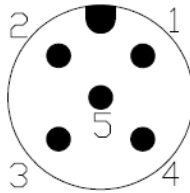
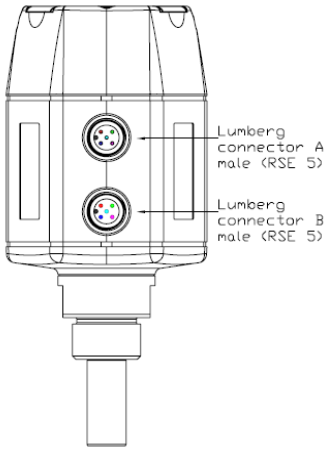


The sensor is delivered with the M12 connector. The user can connect the supply and signals according to the connection diagram on the next page. If a connection cable is ordered (0553 0104, 0553 0105) M12 connector is replaced by a connection cable, with open wires at one side.

Dimensions



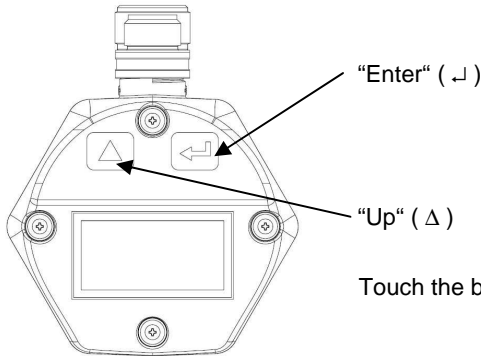
Connection diagram



- SDI: Digital signal (internal use)
- VB: Negative supply voltage
- +VB: Positive supply voltage
- +I: Positive 4..20 mA signal
- NC: not connected
- NO1: Relay output
- NO2: Relay output
- SEL: internal signal

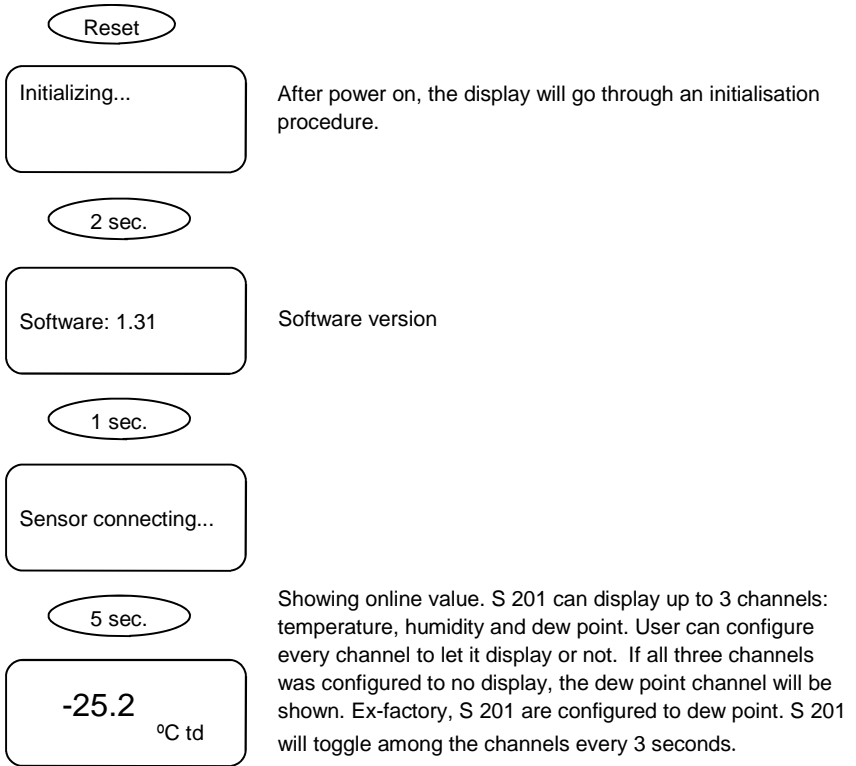
	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5
A	SDI	-VB	+VB	+I	NC
B	SEL	NC	NC	NO1	NO2
Wire color	Brown	White	Blue	Black	Grey

Operation



Touch the button on the top of S 201 for operation.

Starting process



Special indicators



If this icon is shown on the top right corner of LCD it means S 201 has been connected to S 330/331, all the key function are disabled. In this mode, the alarm function in S 201 is disabled and will be handled by S 330/331.

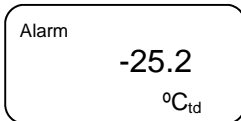


If this indicator shows on the lower left corner it means that an alarm is reached. The relay will be switched and the measurement value is blinking.



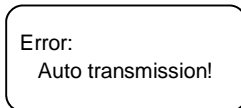
If this symbol shows in front of the measurement value, it indicates that the value is out of valid measurement ranges.

View the Alarm

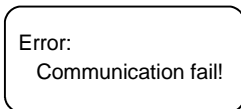


By pressing the Enter button the current alarm threshold value can be shown, and it will go back to online value automatically in 3 seconds.

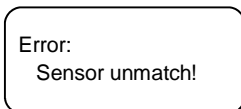
Wrong information



It will show this message if "Auto transmission" function of the sensor was enabled. Please contact technician of CS-iTEC for such case.



As soon as communication fails, the instrument will show this message. Please restart the power supply to fix the problem. If it is still there please contact technician of CS-iTEC.

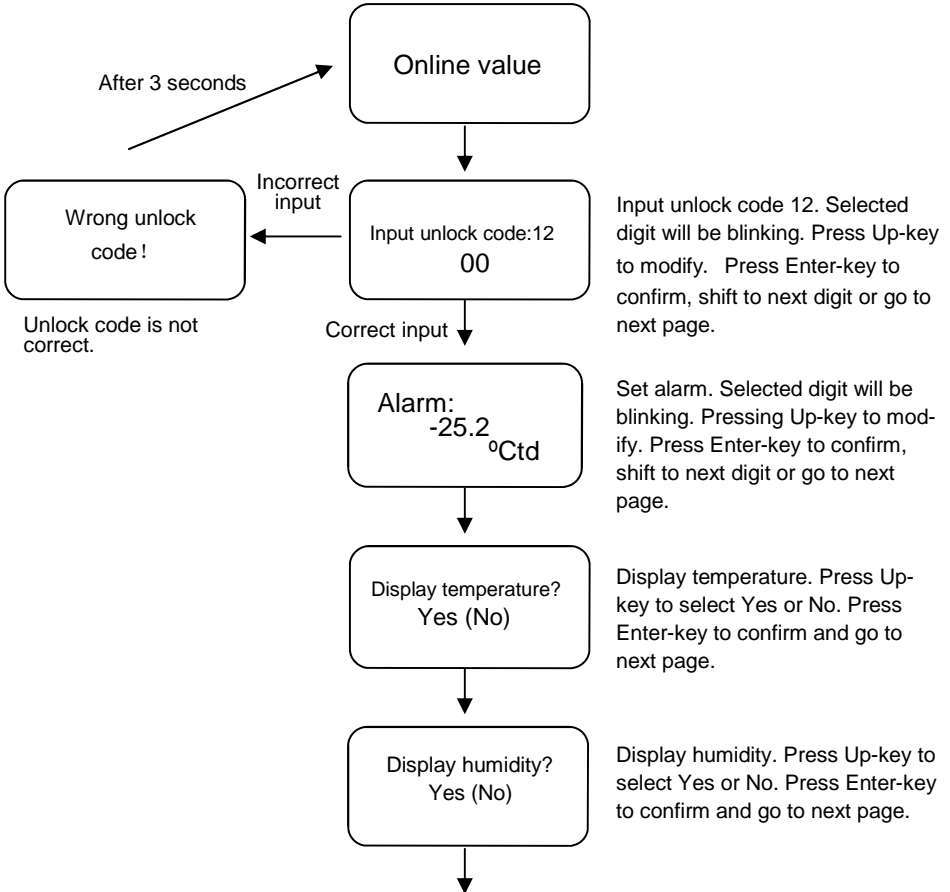


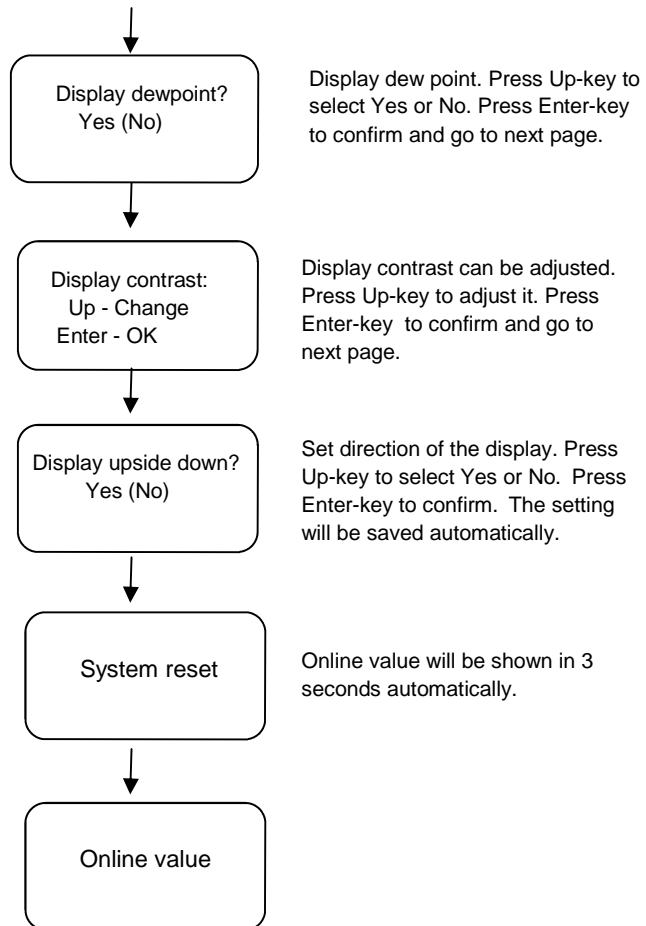
If the sensor is not matching the display setting, the instrument will show this frame. Please contact technician of CS-iTEC for such case.

Configuration setting

S 201 is usually configured ex factory according to customer settings ordered.

In case settings have to be changed, please keep the Enter-key (↵) pressed for 3 seconds, S 420 will ask to enter the unlock key.





Notes:

1. To abort the entry process keep Enter-key pressed for 3 seconds.
2. Online value will be shown automatically if there is no key pressed for more than 20 seconds.

Notes on safety

Please read prior to operation!

Attention: Do not exceed a pressure range of maximum 5.0 MPa with standard version. For higher pressure we offer special versions, please contact our sales.

Observe measuring ranges of sensor!

Observe max. storage and transport temperature as well as max. operating temperature (e. g. protect measuring instrument from direct sunlight).

Warranty claims no longer apply if the instrument is opened, in the case of inexpert handling or use of force.

Adjustments or calibrations should be carried out by qualified measurement and control engineering staff only.

Important: Before installation briefly purge the compressed air in order to remove condensate and particles. This prevents contamination of sensor.

Calibration and service

Please observe from time to time the sinter cap. If it appears to be dirty, it's recommended to replace it. Contaminated filters can lead to longer response times and if the sensor is contaminated it can cause wrong measurements. Please contact our service.

According to DIN ISO certification of the measuring instruments, we recommend regular calibration, and if necessary, adjustment of instrument by the manufacturer. The calibration cycles should fit your internal scheme. We recommend a yearly cycle.

In the case of function faults please send us your measuring instrument with a brief description of the defect. Please also indicate your telephone number so that we can contact you if necessary.

Warranty

CS-iTEC provides a warranty for this product of 24 months covering the material and workmanship under the stated operating conditions from the date of delivery.

Please report any findings immediately and within the warranty time guaranteed by us.

Excluded from this warranty is damage caused by improper use and non-adherence to the instruction manual.

The warranty is also cancelled once the measuring instrument has been opened provided this is not described in the instruction manual for maintenance purposes. This is also the case if the serial number has been changed, damaged or removed.

If in addition to the warranty service necessary repairs, adjustments or similar are carried out, the warranty services are free of charge but there is a charge for other services such as transport and packing costs. Other claims, especially those for damage occurring outside the instrument are not included unless responsibility is legally binding.

ATTENTION: Batteries have a reduced warranty time of 12 months.

Order information

Order no.	Description
0699 0406	S 201, dew point transmitter including M12 connector (straight type) -60 ... +20 °C, display, alarm output, G 1/2" thread
0699 4003	High pressure option 35 MPa (350 bar)
0553 0104	Connection cable 5m, 5 pole
0553 0105	Connection cable 10 m, 5 pole
0554 2005	Service kit for sensor configuration including software
0699 3491	Measuring chamber for easy installation in compressed air system up to 15 bar
0699 3493	Measuring chamber bypass type (in and out 6 mm hose connection)
0198 0002	Sinter cap stainless steel

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