

S 230/231 DEW POINT SENSOR (-100°C ... +20°C)



The SUTO S 230/231 dew point sensors provide reliable, long term stable dew point monitoring in industrial or hazardous applications. SUTO's unique dual sensor technology optimizes sensor sensitivity and accuracy by automatically selecting the ideal sensor type for the situation.

The S 230/231 comes ready to use and simple to install with your choice of 4-20mA or Modbus RTU (RS485) outputs. If required, parameters can quickly and easily be configured through the SUTO service software.

Accuracy tested under following reference conditions:

- Ambient temperature 23°C ±3°C
- Process temperature 23°C ±3°C
- Ambient humidity < 95%, no condensation
- Airflow > 2 l/min at sensor tip

Features / Benefits

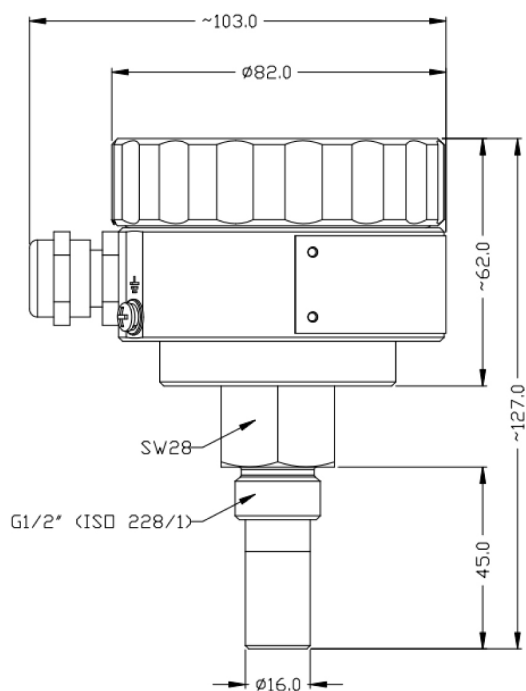
- Dew point sensor with optional ATEX, IECEx approval
- Dual sensor technology for high accuracy of 2°C over the whole range from -100°C ... +20°C
- Two outputs available: 4 ... 20 mA, RS-485 (Modbus RTU).
- IP65 casing provides robust protection in rough industrial environment

Technical data S 230/231

Measurement range (model depending)	Dew point	-100°C ... +20°C (S 230) -50°C ... +20°C (S 231)
	Temperature	-30°C ... +70°C
Dew point sensor	QCM & Polymer	
Temperature sensor	NTC	
Pressure sensor	N/A	
Accuracy	Dew point	±2°C
	Temperature	0.3°C
Operating Pressure (model depending)	-0.1 ... 1.6 MPa (S 230)	
	-0.1 ... 35 MPa (S 231)	
Operating Temperature (Medium)	-30°C ... +70°C	
Measured gases (Medium)	Non-corrosive gases	
Response Time t90 (@ 4 l/min)	< 240 sec -20°C-> -60°C	
	< 30 sec -60°C-> -20°C	
Ambient Temperature	-20°C... +50°C	
Ambient Humidity	0 ... 100 %rH	
Supply Voltage	12 ... 30 VDC	
Current consumption	40 mA @ 24 VDC	
Output signals	4 ... 20 mA (isolated) Modbus RTU	
Electrical connection	Screw terminals	
Process connection	G 1/2" thread (ISO 228/1) Stainless steel 1.4301 (SUS 304)	
Casing material	Aluminium alloy	
Classification	IP67	
EMC	IEC 61326-1	
Approval	Ex db[ib] IIC T4 Gb	
Sensor protection	Sinter filter	
Transport Temperature	-30°C ... +70°C	
Storage Temperature	-20°C ... +50°C	
Weight	728 g	

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Dimensions



Accessories



Measuring chamber with inlet / outlet valve and compression fitting for gas supply

Cable connection



Screw terminals with signal labels inside the connection chamber

Order no.	Description
S699 0230	S 230, dew point sensor, -100°C ... +20°C, G 1/2" thread, 1.5 MPa, 1 x 4 ... 20 mA, RS-485 (Modbus)
S699 0231	S 231, dew point sensor, -50°C... +20°C, G 1/2" thread, 35 MPa, 1 x 4 ... 20 mA, RS-485 (Modbus)
A1480	S 230/231: Ex option ATEX (to be ordered for hazardous environment)
A1481	S 230/231: Ex option IECEx (to be ordered for hazardous environment)
A1482	S 230/231: Ex option GB3836 (to be ordered for hazardous environment)

Accessories

A554 2301	Measuring chamber with inlet / outlet valve and compression fittings for gas supply, 1.5 MPa
A554 2302	Measuring chamber with insertion type sampling tubes (for applications where purge losses are not acceptable), 1.5 MPa