

S8000 *Integrale*

High Performance Precision Dew-Point Hygrometer

This reference dew point instrument combines the ultimate measurement sensitivity and accuracy with flexibility for dynamic measurement and testing protocols or for use as a calibration reference standard.



Highlights

- Fundamental, accurate and drift-free measurement
- -60 to +40°Cdp measurement range
- $\pm 0.1^\circ\text{Cdp}$ accuracy
- 0.001°C sensitivity
- FAST – guaranteed frost formation below 0°C
- Data logging to USB or SD card
- Vertical or horizontal configuration
- Operates at pressure up to 1.7 MPa (17 barg)

Applications

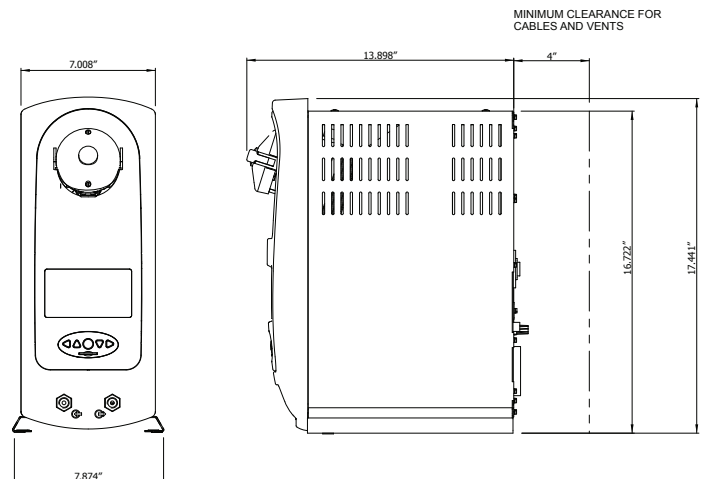
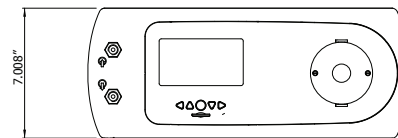
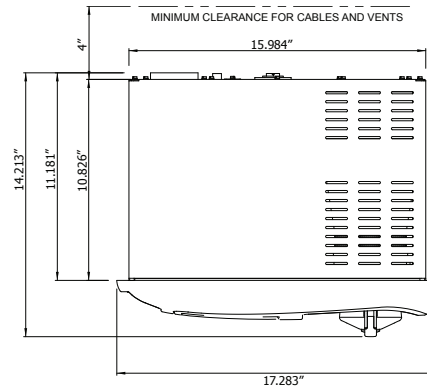
- Metrology laboratories
- High voltage switchgear
- Clean /dry rooms
- Pharmaceutical
- Fuel cell research
- Engine testing
- ... and many more

Technical Specifications

General	
Measurement range	-60 to +40°Cdp
Measurement accuracy*	±0.1°Cdp
Stability	Better than 0.1°Cdp
Repeatability	<0.05°C
Measurement units	°Cdp or °Fdp; % RH; g/m ³ ; g/kg; ppm _v ; ppm _w SF ₆ ; ml/min
Response speed	2°C/sec + settling time
Power supply	85 to 264 V, 47/63 Hz; 100 VA
Operating temperature range	-20 to +50°C
Dew-Point Sensor	
Mirror	Gold plated copper
Temperature measurement	4 wire Pt100, 1/10 DIN class B
Pressure	1.7 MPa (17 barg) (for higher pressure consult factory)
Flow Sensor	
Measurement range	0 to 1000 ml/min
Display Unit	
Resolution	User-selectable to 0.001 dependent on parameter
Outputs:	
Analog	Three channels; user-selectable 4-20 mA, 0-20 mA or 0-1 V
Digital	USB, SD Card slot
Alarm	Two volt free changeover contacts, one process alarm, one fault alarm; 1A @ 30 V dc
Cable pack	Supply and USB cables. Output connectors suitable for indoor use
Optional Remote PRT	
Temperature measurement	4 wire Pt100, 1/10 DIN class B
Measurement accuracy*	±0.1°C
Measurement units	°C or °F
Cable length	2 metres (250 metres max)
Optional Pressure Sensor (In-Built)	
Measurement range	2.5 MPa (25 bara)
Measurement accuracy*	0.25 % Full Scale, typical
Measurement units	barg; psig; Kpg; MPa

* Measurement accuracy means maximum deviation between instrument under test and corrected reference. To this must be added the uncertainties associated with the calibration system and the environmental conditions during testing or subsequent use.

Dimensions



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Michell Instruments adopts a continuous development programme which sometimes necessitates specification changes without notice.
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S8000 Order Codes

Feature	Item	Description
Base Model	S8K-BASE	Base unit: Dew-Point Hygrometer (with LCD display and in-built data logging of measurement)
Type	S8K-I	Integrale version (integrated sensor in S8000 base unit. Measure -60 to +40°Cdp)
Housing	S8K-H	Horizontal orientation
	S8K-V	Vertical orientation
Language	S8K-U	EU language (GB, DE, FR, IT)
	S8K-C	Chinese language
	S8K-J	Japanese language
Calibration	CM-STD	Standard traceable in-house calibration
	CM-DPUKAS	5-pt UKAS dew-point calibration (specify points required on order)
	CM-DPAP01	Additional UKAS dew-point calibration point

Ordering Example:

S8K-BASE-I-V-U-CM-STD

S8000 Integrale, vertical orientation, European language with traceable in-house calibration

Accessories and Spare Parts

Item	Product/Description
S8K-PS	In-built pressure sensor for sample gas
S8K-PRT	Remote PRT, 2m cable with connector
S8K-MCI	Microscope
S8K-PKI	Panel mounting kit for 19" rack - INT version only
S8K-TCI	Transport case - INT version only. Application software - INT version only
S8K-MV	Metering valve
S8K-F02	Filter 2 µm
S8K-ADP-20801	Adapter for 3mm (0.12") tube
S8K-ADP-20179	Adapter for 6mm (0.24") tube
S8K-ADP-20114	Adapter for 1/8" tube
S8K-ADP-20117	Adapter for 1/4" tube
CM-CLN-KIT	Cleaning materials required for periodic maintenance of cooled mirror dew-point hygrometer sensors (fluids not included)