

DPS3 – Heated Dew Point Chilled Mirror Hygrometer

Application: The DPS3 is a heated hygrometer that is used to measure the moisture content of gases when the dew point temperature is greater than the ambient temperature. The sampling system is heated to prevent condensation of vapors into liquids thus preventing normal operation. The DPS3 is a special application chilled mirror hygrometer designed for use with higher temperature applications including Furnace, Plastic Blow Molding, Heat Treat, Compressed Air Systems (before after cooler), engine exhaust, Nuclear fuel rod processing, fluidized beds, ...

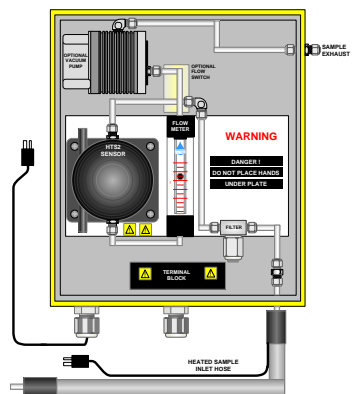
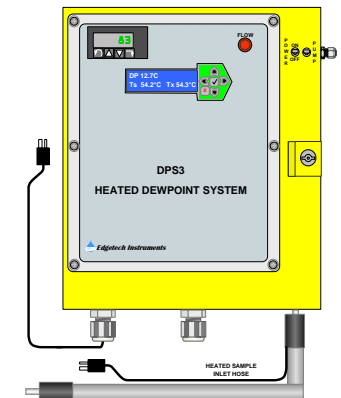
Description: The **Model DPS3** is a High Temperature Heated Dew Point System consisting of a heated sampling package plus a separate analyzer control module. The analyzer control module is based on the Dewtrak Electronics Package and is housed within a IP65 Plastic enclosure and is isolated from the heated DPS3 sampling enclosure (NEMA 4). The heated sampling package is provided with temperature control and is adjustable at the temperature control module located on the electronics package enclosure door. The temperature controller ensures the sampled gas remains hot to prevent condensation during measurement. The standard system features the **HTS2 sensor with aluminum body** and is designed with capability to measure high dew points up to 95°C / 203°F.

The system includes: 4-20mA or 0-5VDC output, Relay alarm output, Self-diagnostics capable of continuous unattended operation, +/-0.25°C accuracy, with certificate of traceability to N.I.S.T., Integrated flow meter (0.5 to 5scfh), Industrial duty terminal block for easy electrical installation, filter, and **3 foot heated sample input hose**. The system can be configured to monitor sample flow conditions. The standard configuration is set up for measuring a non-corrosive, positive pressure sample gas. An optional vacuum pump may be selected for extraction from atmospheric pressure process points.

Sensors: The standard system features the **HTS2 2-stage chilled mirror sensor with aluminum body** and is designed with capability to measure dew points up to 95°C / 203°F (depression range of 60°C).

Options: The standard system is available with many options depending on the application requirements

1. **Flow Switch** may be added to detect loss of sample flow. It is available as a SPST dry contact or can be ordered to provide a local RED Lamp when loss of flow is detected.
2. **Vacuum Pump** is available to provide sample extraction from non-pressurized systems. An ON-OFF power switch is provided when the pump is ordered.
3. **UNIVAC** This feature accommodates 110 or 220 VAC power installation. It provides universal power input (110 or 220 VAC) configurable at the time of installation in the field. It features an on-board power transformer and power selection switch. The USER must select the appropriate power at the switch setting and wire according to the instructions. A mains power ON-OFF switch is also provided. This option increases the size of the analyzer box. The heated sample hose will be powered by the analyzer control unit and will operate on 110 vac.
4. **MAINS POWER SWITCH** is optional when UNIVAC is not ordered.
5. **CART** System is mounted on a cart to allow you to share the system at many points.
6. **DA** Adds a Second Alarm relay which is usually configured for “Clean Mirror” notice
7. **RS** Adds the option board to provide RS232 output
8. **TAG** SS tag attached to the unit. Laser Etched, 2 lines- customer provided info



- The standard unit includes a **heated sample hose**. The standard length is 3 feet (1m) but optional lengths are available. It will follow the power configuration of the main system: 110 or 220 VAC unless the UNIVAC option is chosen. In this case, it is powered by the main analyzer control module which always converts to 110 vac.

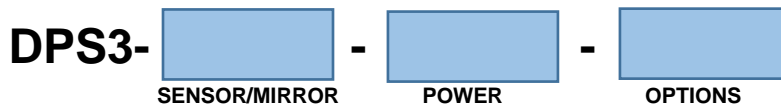
Notes:

- The DPS series analyzers come with standard power configurations as 110 or 220 VAC as specified in your order unless the UNIVAC option is ordered.
- The temperature controller is adjustable and should be set to 5° warmer than the sampled gas.
- The HTS Sensors are aluminum construction and are appropriate for most non-aggressive background gases.
- All sensors are configured for the heated sampling system and **do not include fan heat exchangers**.
- The standard DPS3 is configured for 1-100 psig sample pressure operation.
- Adjustment of the sample flow meter may be required during initial set up of the DPS3 to your process.
- Programming the DPS3 electronics can be managed through the buttons on the display or via RS-232 connection.
- The HTS chilled mirror sensors are designed with flow through sampling and is equipped with 1/4inch Swagelok fittings. Although the HTS sensor body is constructed of Aluminum, you can choose different mirror types.
- An optional flow switch may be added to detect loss of sample flow. It is available as a SPST dry contact or can be ordered to provide a local RED Lamp when loss of flow is detected.
- If you need a chemical resistant sensor and the HTS aluminum body is not suitable, then refer to the DPS4 or DPS5.
- The optional vacuum pump is available to provide sample extraction from non-pressurized systems.
- The DPS3 expresses moisture content in Dew Point temperature. If you need PPMv, please refer to the DPS4/ DPS5.

The system includes: 4-20mA or 0-5VDC output, Self-diagnostics capable of continuous unattended operation, +/-0.25°C accuracy, with certificate of traceability to N.I.S.T., Integrated flow meter (0.5 to 5scfh), Industrial duty terminal block for easy electrical installation, filter, and **3 foot heated sample input hose**. The system can be configured to monitor sample flow conditions. The standard configuration is set up for measuring a non-corrosive, positive pressure sample gas. An optional vacuum pump may be selected for extraction from atmospheric pressure process points.

TO ORDER THE DPS3:

- Select Sensor Mirror Type- Chrome (standard), SS, Platinum
- Select Options such as Vacuum Pump
- List as separate line items : Accessories, Calibration Packages, ...



For Ex: DPS3 - HTS2SS - 110VAC - VPH
\$5,550 + \$2450 + \$0 + \$550 = \$8,550 for a DPS3-HTS2-SS-VPH
Base Price

1. Select Sensor/ Mirror

S-Type, Standard Duty		Description	Depression	Mirror \$		
				STD	ENH	MAX
HTS2	Two Stage, Al Body, Convection Air Cooled- No Fans, Flow Thru Sampling		60°C	\$2200	\$2450	\$2640
HTS3	Three Stage, AL Body, Convection Air Cooled- No Fans, Flow Thru Sampling		70°C	\$5,198	\$5,448	\$5,638

Applications CM Configuration	General Purpose Gases	Acids	Caustics	Salts	Organics	Nuclear Application	High Temperature
STD: Standard Chrome	A	D	D	C	C	D	C
ENH: Enhanced SS	A	B	B	B	B	C	B
MAX: Platinum	A	A	A	A	A	A	A

A Excellent

B Very Good

C Good

D Not Recommended

STEP 2: SELECT OPTIONS:

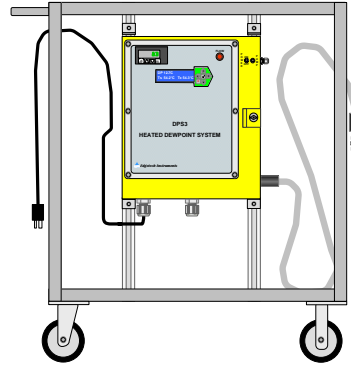
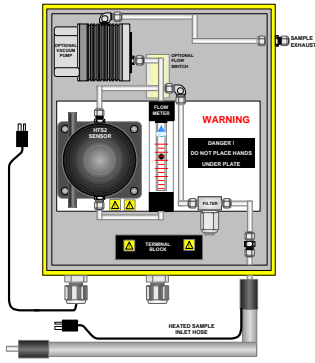
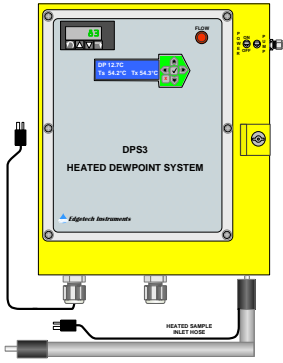
-VPH	Vacuum Pump, includes power switch for pump	\$ 550.00
-FS	SS Sample Flow Switch, provides SPST dry contact of loss of flow, Normally Open	\$ 250.00
-FSL	Sample Flow Switch and Lamp	\$ 350.00
-CART	System mounted on a cart	\$ 1,500.00
-FIL	Filter kit: includes 1/4T compression fittings and additional elements; rated for 0.1 micron particulate	\$ 165.00
-DX	Additional box of elements. Qty. 3	\$ 83.00

LIST ACCESSORIES / SPARE PARTS/ SERVICES AS SEPARATE LINE ITEMS:

HTUBE-TF-1/4-3-115	Heated 1/4 inch Teflon Tubing, 3 feet long, 115 VAC-21 Watts	\$ 400.00
HTUBE-TF-1/4-10-115	Heated 1/4 inch Teflon Tubing, 10 feet long, 115 VAC-70 Watts	\$ 700.00
HTUBE-TF-1/4-15-115	Heated 1/4 inch Teflon Tubing, 15 feet long, 115 VAC-105 Watts	\$ 950.00
HTUBE-TF-1/4-3-230	Heated 1/4 inch Teflon Tubing, 3 feet long, 230 VAC-84 Watts	\$ 450.00
HTUBE-TF-1/4-10-230	Heated 1/4 inch Teflon Tubing, 10 feet long, 230 VAC-280 Watts	\$ 750.00
HTUBE-TF-1/4-15-230	Heated 1/4 inch Teflon Tubing, 15 feet long, 2230 VAC-420 Watts	\$ 1,000.00

Extended Warranty/Calibration Options: Please list as separate line items:

3EXTW	3 Year Extended Warranty includes repairs covered in the warranty statement	10% of TOTAL PRICE
3YNIST1P	3 NIST Traceable Calibrations for the price of 2 (1 Parameter)	\$ 1,210.00



CART VERSION