

MOISTURE & DEW POINT MEASUREMENT SERIES

FAS-SW

TRACE MOISTURE & DEW POINT TRANSMITTER

Engineered and manufactured by Vympel
Supplied and supported by Blue Dragon Technology

Compact trace moisture measurement for natural gas, hydrogen-containing gases, inert gases, and industrial process applications

The FAS-SW is a compact aluminum oxide trace moisture transmitter for continuous water dew point measurement in dry gas streams. Designed for natural gas, hydrogen-containing gases, inert gases, and industrial process gases, it provides dependable low-dew-point monitoring for gas drying, gas quality assurance, and process protection. Its compact form, high-pressure capability, 4-20 mA output, and hazardous-area suitability make it a practical solution for continuous field installation and analyzer panel integration.



Trace Dew Point Measurement

Water dew point measurement down to -100 °C for very dry gas applications



Compact High-Pressure Design

Suitable for installation in gas systems up to 300 bar



Industrial Signal Integration

4-20 mA output, IP67 housing, and Ex protection for field use

WHY CHOOSE THE FAS-SW?



Wide Low-Dew-Point Coverage

Measures water dew point from -100 to +20 °C



Compact Form Factor

Small transmitter body for tight installation spaces



High-Pressure Operation

Suitable for gas systems up to 300 bar



Hydrogen & Process Gas Use

Designed for inert, aggressive, and hydrogen-containing gases



Continuous Monitoring

Provides stable online dew point indication



Easy Plant Integration

Analog 4-20 mA output for control and monitoring systems

INDUSTRIES & APPLICATIONS



Natural Gas Processing

- Dry gas quality monitoring
- Gas dehydration system
- Pipeline gas conditioning



Petrochemicals

- Process gas moisture control
- Drying system monitoring
- Protection of sensitive equipment



Industrial Gases

- Nitrogen and inert gas monitoring
- Dry gas quality assurance
- Utility gas systems



Hydrogen & Energy

- Hydrogen-containing gas service
- Process protection
- Condition monitoring



Chemical Industry

- Continuous low-moisture verification
- Dry gas handling
- Gas preparation systems



Power & Utilities

- Instrument gas systems
- Dry gas process support
- Moisture control

HOW IT WORKS

1



Gas Sample

A representative dry gas sample passes through the sensor chamber

2



Moisture Absorption

Water molecules interact with the aluminium oxide sensing layer

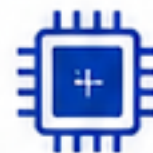
3



Sensor Response

The sensor electrical characteristics change with moisture level

4



Dew Point Conversion

Electronics convert the response into water dew point

5



Signal Output

The transmitter outputs a standard 4-20 mA process signal

6



Continuous Monitoring

Plant systems receive continuous dew point information

TECHNICAL SPECIFICATIONS

Measurement Principle	Aluminium oxide sorption-type moisture sensor
Measured Parameter	Water dew point temperature
Overall Dew Point Range	-100 to +20 °C
Metrological Range I	-70 to +20 °C
Metrological Range II	-100 to +20 °C
Dew Point Accuracy	±2.0 °C from -70 to +20 °C; ±3.0 °C from -100 to -70 °C
4-20 mA Conversion Error	≤0.3%
Maximum Operating Pressure	300 bar
Sample Gas Flow	0.5-5 L/min
Sample Gas Temperature	-20 to +60 °C
Analog Output	4-20 mA
Power Supply	20-27 VDC
Power Consumption	≤3 W
Explosion Protection	1Ex ib IIC T6 Gb
Enclosure Protection	IP67
Ambient Temperature	-40 to +50 °C
Dimensions / Weight	≤95 x 24 x 24 mm / ≤1.0 kg, including measurement chamber

INSTALLATION & INTEGRATION



Inline Installation

Compact transmitter body for direct integration into a gas sample path or measuring Chamber



Analyzer Panel Integration

Suitable for engineered gas conditioning panels and continuous analyzer skids



Signal Connection

20-27 VDC power with 4-20 mA output for straightforward control system integration

APPLICATION GUIDANCE



Best suited for continuous low-moisture monitoring in dry gas service



Ideal for natural gas, inert gases, and hydrogen-containing gas streams



Use a representative sample and stable flow for best performance



Sample conditioning may be required where pressure or temperature control is necessary



Factory-tested instrument supplied for industrial field integration

