Notes

Please note:
Product development and improvement are ongoing, therefore product data and specifications may be altered without prior notification.

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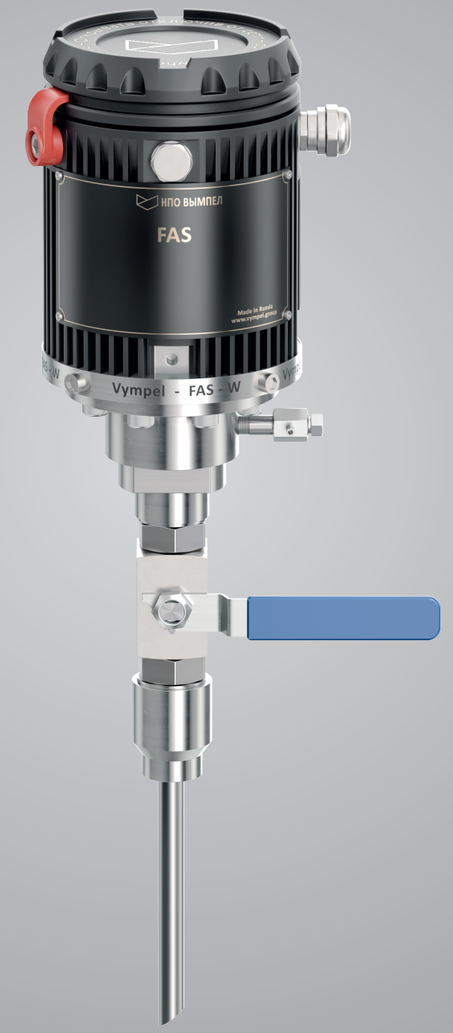

FAS-W

Automatic condensation hygrometer

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VYMPEL

FAS-W

New form. New applications. Proven technology.

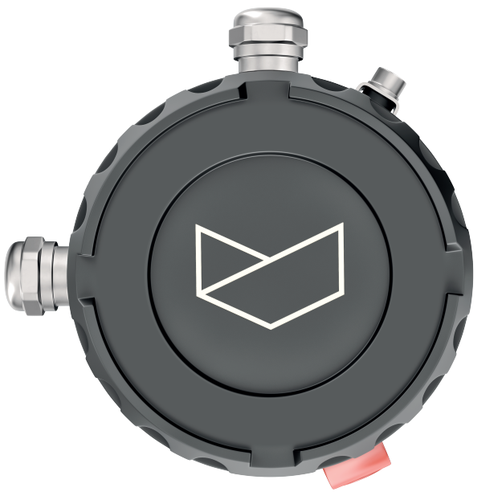
The "FAS" online hygrometer is Vympel's first automatic analyzer that can measure both the volume of moisture and the dew point temperature of water in natural gases or other gas mixtures at pressures up to 100 bar. When combined with a pressure sensor, the FAS provides accurate and stable measurements that can be output as dew point in ° C, ° F or K and as a calculated value for the volume fraction of moisture in ppmV or mg/m³.

The FAS is the most compact and economical solution in the automatic online hygrometer segment. Its monobloc design comprises a sensor cell, an electronics unit and a pressure-resistant housing outfitted with both an analog (4... 20mA) and a digital (RS-485 / Modbus) interface.

Building on the proven first principle CONG Prima technology, the FAS uses a temperature-controlled condensation mirror to directly measure the water dew point (WDP). The innovative design of the measurement cell enables a significant extension of the effective measurement range through reduction of the mirror's surface by 60%. As a result, the FAS has the largest measurement range of all automatic online hygrometers.

The analyzer's robust design meets or exceeds the strictest requirements for a dew point measuring device in an aggressive gas environment. Therefore the FAS is not only appropriate for use with aggressive gas mixtures, but also for applications in challenging ambient conditions, such as temperatures from -40 ... +80 °C.

The FAS can be installed either as part of a gas preparation system or "in situ" directly on the pipeline. Significantly, in situ installation can be configured for **zero emissions!**



Product Features

- Low purchase price
- Compact design: 185x120x135mm
- User friendly operation
- Dew point temperature measurement range from -80 °C to + 65 °C
- Enhanced sensitivity of the optical recording system for the registration of water condensation
- Separate pressure sensor input
- Data interfaces: digital RS-485, analog 4 ... 20mA; two alarm signal channels
- Weight: 4 kg

The FAS can be used for the measurement of moisture content or air humidity in inert and aggressive gas mixtures including hydrogen-containing gases for applications in:

- Technological related processes
- Metallurgy
- Mechanical engineering
- The petrochemical industry
- Microelectronics
- The energy sector

Technical Data

Dew point measurement range		-65 °C...+30 °C
Volume moisture content measurement range		5...20 · 10^3 ppm
Dew point absolute error		±0.5 °C
Volume moisture accuracy		±5% (max)
Measurement cycle frequency		14...22 (max) cycles per hour
Sample gas flow rate		0.2...2.0 Nl/min
Ambient temperature		-40 °C... +60 °C
Pressure measurement range		≤ 100 bar
Ingress protection rating		IP67
Explosion-proof rating	ATEX	II 2G Ex IIC T5 Gb
interfaces	Alarm Digital Analog	2 open-collector type RS-485 Modbus / RTU 4...20 mA
Power supply		20 – 27 V DC
Power consumption		15 W (max)
Dimensions		185 x 120 x 135 mm
Weight		4.0 kg

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