Features

- Chilled-mirror type hygrometer
- First-principle measurement – no measurement drift
- Laser-based interferometric analysis technology
- Registration of both the water dew point and hydrocarbon condensation temperature with one instrument
- Enhanced functionality provided by Central Control Unit
- ATEX: II2 G Ex d IIA T5 Gb
- RS-485, RS-232 digital and 4...20mA analogue data connection
- Smart mirror-cleaning mode
- Low maintenance
- No consumables
- Lightweight and compact
- Water dew point measurement in accord with DIN 51871, ISO 6327, and ASTM D 1142
- Hydrocarbon condensation temperature measurement in accord with ISO TR 11150, ISO TR 12148, and ASTM D 1142

Technical data

Measurement range	Water *	-30...+30 °C -50...+10 °C *
	HC	-30...+30 °C -30...+10 °C
Accuracy	Water HC	±0.5 °C / ±0.25 °C** ±0.5 °C
Measurement frequency		4...14 cycles / hour (max)
Sample gas flow rate		0.5...2.0 Nl/min.
Ambient temperature		-40...+40 °C
Gas sample pressure		≤ 160 bar
Ingress protection rating		IP54
Explosion-proof rating	ATEX	II 2G Ex d IIA T5 Gb
Data interface Central Control Unit	Outputs	RS-485 Modbus / RTU RS-232 Modbus / RTU 2 x 4...20 mA
	Inputs	4...20 mA (thermometer) 4...20 mA (pressure transmitter)
Dimensions	Central Control Unit Dew Point Transducer	483 x 320 x 128 mm 207 x 112 x 235 mm
Weight	Central Control Unit Dew Point Transducer	6.5 kg 6.5 kg

* Supplemental cooling is necessary when measuring dew points < -30 °C.
** Limited to a measurement range of -30 °C...+30 °C.

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VYMPEL
TECHNOLOGIES

CONG Prima 10

Dew Point Transducer

www.vympel.de

VYMPEL

CONG Prima 10

A Laboratory Instrument: Online and On Site

The **CONG Prima-10** is a laboratory quality chilled-mirror hygrometer, designed to be equally at home in the field. This state-of-the-art instrument is suitable for a wide range of applications.

Featuring Vympel's advanced laser-based analysis technology the CONG Prima-10 can measure both the water dew point, the hydrocarbon condensation temperature and both values alternately with unparalleled accuracy and repeatability with the same measurement cell.

Advanced interferometric technology

Vympel's advanced registration technology takes advantage of the phenomenon of "total refraction" to achieve an unprecedented level of sensitivity.

Inherently safe and robust

The enclosure of the CONG Prima 10 dew point transducer unit features a monobloc construction comprising a sensor cell, an electronic unit, and an explosion-proof housing. In addition, the measurement cell is located exterior to the inner cavity of the housing.

This placement ensures that no leakage of the sample gas can ever result in a dangerous over-pressurization of the analyzer as compared to competing designs.

Two-component analyzer

The first component is the CONG Prima-10's **Dew Point Transducer** unit. The sample gas flows though this is unit, and registration of the condensation occurs.

The second component of the CONG Prima-10 is the **Central Control Unit**. This unit is installed in an explosion safe zone and provides for operational control, diagnostics, and adjustment of the CONG Prima-10. In addition, the central control unit includes multiple digital and analogue data ports.

Gas Preparation System

The CONG Prima-10 can be delivered complete with a gas preparation system. Vympel systems are modular in design and incorporate a number of patented innovations that ensure accurate measurement results, even under difficult conditions. The addition of supplemental cooling allows the CONG Prima-10 measurement range to reach -50 °C for low temperature water dew point measurements.

In situ

For mounting direct on the pipeline, also known as "in situ" installation, the CONG Prima-10 is mounted onto a "pipeline module" that includes an insertable sampling probe. In situ installation of a chilled-mirror hygrometer is uniquely available from Vympel. Available with filtration, in situ installation is well-suited to indoor as well as outdoor applications – and it can even be configured to provide **zero-emission sampling and analysis.**

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