

SERVOMEX AquaXact 1688

AQUAXACT 1688

The AquaXact 1688 is a rugged ultra-thin film aluminum oxide moisture sensor that enables fast and accurate dew point and ppm H₂O measurements of moisture in a wide variety of gas phase process applications. Not only is it a standalone 4-20mA transmitter, but it is also able to be remotely interfaced to the SERVOPRO MonoExact DF310E and the AquaXact 1688 digital controller. The controller provides a high-clarity color touchscreen display, alarms, relays and advanced communication protocols including RS485, Modbus RDU, Modbus TCP/IP and PROFIBUS. Optional internal oxygen sensors provide ppm to percent level O₂ measurement capabilities.

REPLACEABLE SENSOR ELEMENT: The Al₂O₃ thin film sensor tip can be replaced by the user and the associated calibration file loaded into the transmitter using the controller, eliminating the need for return-to-factory calibrations. Yearly field calibration adjustments require only a single gas standard.

STANDARD FEATURES

- Dew Point range -100°C to +20°C
- High Accuracy: ± 3°C - Repeatability ± 0.5°C
- Functions as a standalone Dew Point transmitter - 4-20 mA loop powered
- High-performance ultra-thin film high-capacitance Aluminum Oxide field-replaceable sensor element
- Sensor unaffected by condensation and liquid water
- Accurate dew point measurements over its full range, even under extreme temperature conditions
- Interfaces with SERVOPRO MonoExact DF310E gas analyzer system and AquaXact controller via digital interface - maximum cable length 200 meters
- Range of engineering units °C(dp), °F(dp), ppmV
- Hazardous Area versions (Zone 2/Div 2) available soon
- IP65 rated connector



PARTNERS WITH MonoExact DF310E



- High-clarity color display
- Alarms and relays
- Advanced communication protocols including RS485, Modbus TCP/IP and PROFIBUS

KEY SPECIFICATIONS - AQUAXACT MOISTURE SENSOR

DEW POINT RANGE	-100°C to +20°C, other ranges available
ACCURACY	±3°C (±3.6°F)
REPEATABILITY	+/-0.5°C (±0.9°F)
AMBIENT TEMPERATURE RANGE	-10°C to +70°C (+14°F to +158°F)
STORAGE TEMPERATURE	-40°C to +80°C (-40°F to +176°F)
CALIBRATION METHOD	NIST traceable multipoint calibration table with temperature compensation over the full range
SAMPLE GAS TEMPERATURE RANGE	-10°C to 70°C
SAMPLE GAS PRESSURE RANGE	0 to 300 psig

Learn more about the AquaXact 1688
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PRODUCT DATA: AquaXact 1688

KEY SPECIFICATIONS - AQUAXACT MOISTURE SENSOR

HOUSING	Stainless Steel, weatherproof IP65/NEMA4x
DIMENSIONS & WEIGHT	~44 mm (1.73") diameter. x ~188 mm (7.4") length. 227g (0.7 lbs.)
PRESSURE OPERATING RANGE	Standard: 0 to 34 bar (0 to 500 psig)
OPERATING TEMPERATURE	-10°C to +70°C
MECHANICAL CONNECTION	5/8" – 18 UNF
ELECTRICAL CONNECTIONS	Industrial standard 14mm (0.54"), 7 pin connector
POWER REQUIREMENTS	13-33 V DC, reverse polarity protected, the instrument draws 4-20mA depending on measured Dew Point
ENGINEERING UNITS	Factory programmed °C(dp), °F(dp), ppmV
OUTPUTS	<p>Analog and digital outputs are available</p> <p>A. 4-20mA drawn by the instrument from the power supply. The 4-20mA is linear to engineering units, the range is programmable. Output resolution is 0.1°Cdp or ~ 0.25uA whichever is greater. Maximum cable length <1500m.</p> <p>B. The instrument can be interfaced to a SERVOPRO MonoExact DF310E analyzer or AquaXact 1688 controller via a RS485 cable – maximum length 200 meters. In addition to standard analog outputs RS485, Modbus RDU, Modus TCP/IP and PROFIBUS communications are available.</p>
ALARMS	The 4-20mA signal may be used by an external device to operate relays.
WARRANTY	1 year
OPTIONS	Sampling panel options available

KEY APPLICATIONS

- Air Separation Units
- Natural Gas Processing and Transportation
- Glove Boxes
- Instrument Air Units
- Ethylene Production
- Refining Gases
- Medical Gases
- Semiconductors
- Furnace Gas/Heat Treating
- Power Generation
- Air Dryers
- Pharmaceutical
- Aerospace

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