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Remote Sensor Capability of the Brand-Gaus Model 4705 Oxygen Analyzer

Overview

The Brand-Gaus Model 4705 Oxygen Analyzer is a highly reliable and accurate analyzer for measuring oxygen levels in combustion and other industrial processes. Its unique linear-output zirconium oxide measurement technology allows measurement and calibration all the way down to zero O2 levels, eliminating the need to calibrate at 2% O2, thus, serving as an plug-and-play replacement for fragile paramagnetic O2 analyzers.

The Brand-Gaus Model 4705 can be operated with the sensor installed in the rackmount enclosure, or with the senor installed remotely. Remote sensor capability allows for locating the sensor very close to or inline with the process gas source, so O2 can be reliably measured on a wet basis without the need to run additional heated sample lines to the analyzer chassis.

If an additional Brand-Gaus Model 4705 is used with the sensor connected on the dry side of the system, then both wet and dry O2 levels can be measured and the moisture content calculated. For the dry measurement, the sensor can be located remotely or internal to the dry O2 analyzer.

The Brand-Gaus Model 4705 is particularly suited for the wet/dry subtractive method because of its unmatched zero stability and because it allows for such convenient wet O2 sensor location.

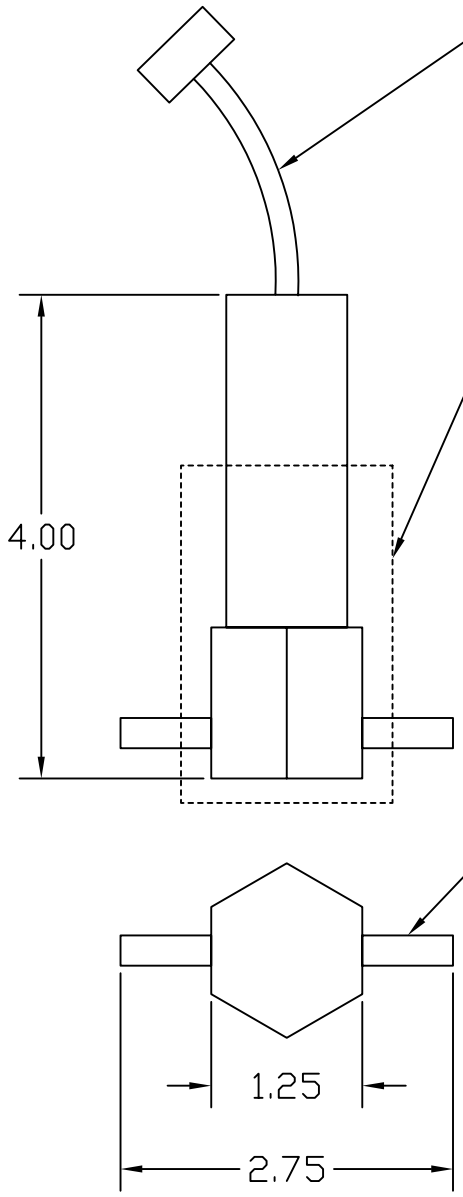
Dimensions of Remote Sensor Assembly

A diagram showing the overall dimensions and connections of the remote sensor assembly is shown in the attached drawing. In general, the sensor is self-heating and only requires heated lines up to the connection ports on the hex-body of the sensor. Installation can usually be accomplished by installing directly inline with existing heated sample line near the process source.

Dimensions of Analyzer Chassis

The analyzer chassis is a standard EIA-19 inch rackmount enclosure approximately 3.5 inches tall (two rack units tall) and 10 inches deep, weighing about 10 lbs. If a complete wet/dry measurement is required, two chassis will be needed.

For more information about our oxygen and NOx process measurement capabilities, contact us at 512-506-9655 or info@brandgaus.com.



Sensor can be located up to 100ft from Model 4705 Rackmount chassis via 5-pin connector. For any cable length over 50ft, use 12 AWG for pins 1 and 2 (heater power) to maintain proper heater voltage. Other wires can be of any gauge between 24 and 12 AWG.

Hex body can be insulated if in cold environment, but not usually necessary. Dashed line shows recommended insulation limits to avoid over heating cable end.

Without insulation and external heating, sensor will operate at about 100C in ambient of 25C.

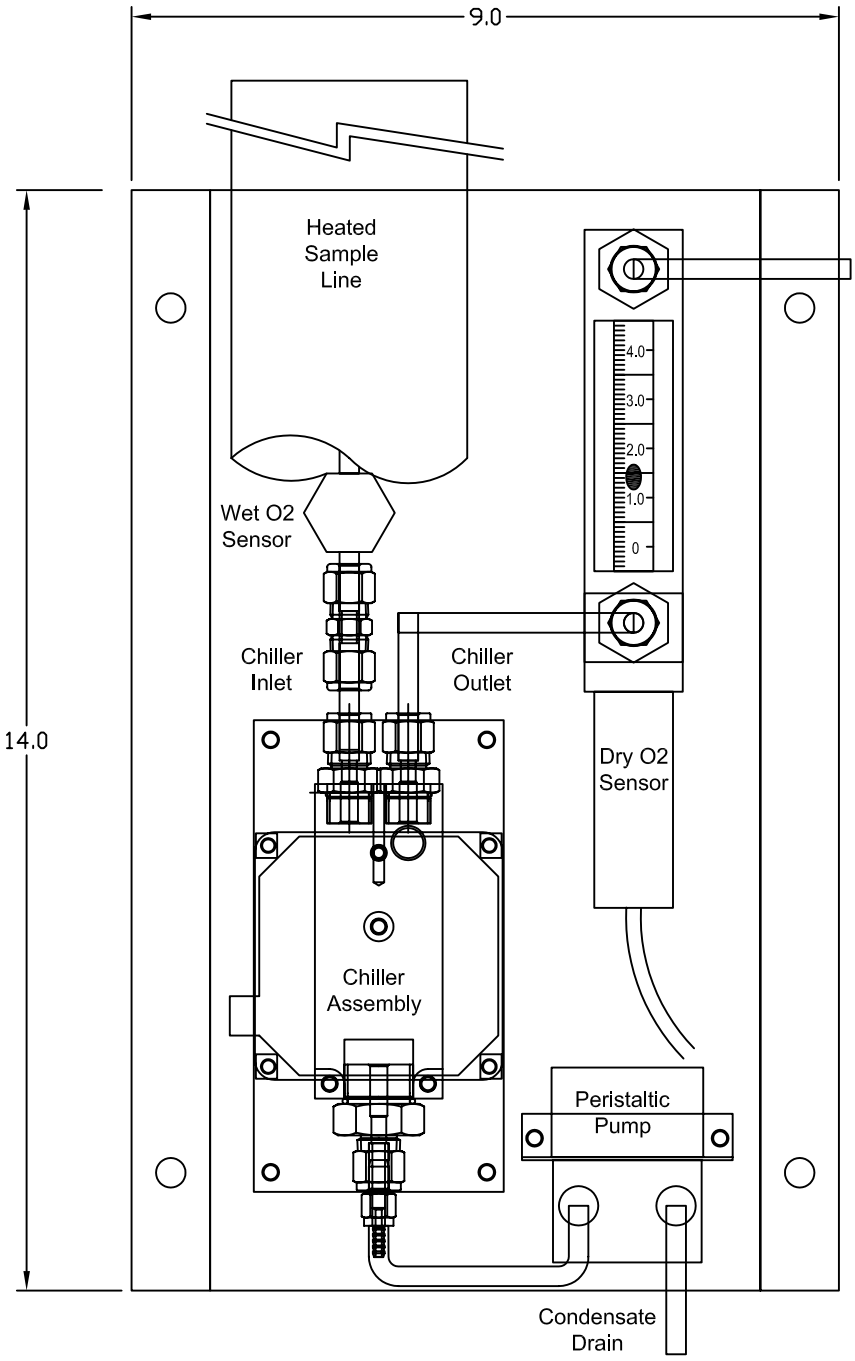
Sensor can be operated at temperatures up to 250C. Cable end of sensor should left uninsulated to keep cable temperatures below 200C.

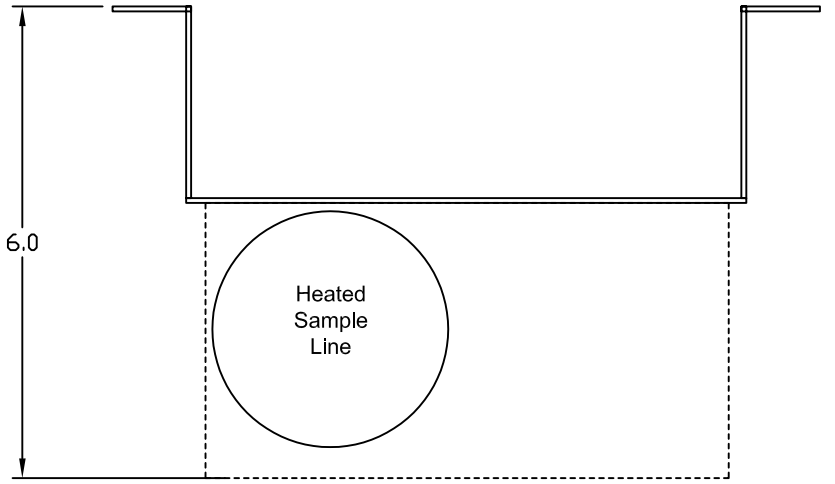
1/4 stainless tubes for inlet and outlet, ready for ¼" Swagelok tube fittings

Flow rate guideliines:

Sample flow rate can be any value between 0.5 and 5 SLPM, but should be controlled to within 10% of target value to ensure stable calibration. Typically can be done by either a flow-control orifice or a metering valve.located in flowmeter exit fitting.

Remote Sensor for Model 4705	Part No.: Rev: -	Date: Drawn by:	Brand Gaus 2907 Appennini Cove Cedar Park, TX 78613 512-506-9655





Moisture Analyzer Pneumatics Panel:

Wall-mount panel houses all pneumatics compoenents, including wet and dry O2 sensors, chiller, peristaltic pump, eductor pump, and flow control components

Approximate overall dimensions/extent shown.

Either air-driven "eductor" pump or customer-supplied mechanical pump can be used for the vacuum pump.

Flow rate guidelins:

Sample flow rate can be any value between 0.5 and 5 SLPM, but should be controlled to within 10% of target value to ensure stable calibration. Typically can be done by either a flow-control orifice or a metering valve.located in flowmeter exit fitting.

moisture analyzer pneumatics	Part No.: n/a Rev: -	Date:20 Aug 2008 Drawn by: ADG	Brand Gaus 2907 Appennini Cove Cedar Park, TX 78613 512-506-9655