

PRODUCT BULLETIN

ONGUARD 4000

The Purafil OnGuard 4000 (OG4) Atmospheric Corrosion Monitor

indicates the level of corrosion before severe damage occurs, preventing costly downtime and maintenance repairs. Reactivity monitoring is an accurate and reliable method of evaluating the quality of air, characterizing the room environment, and evaluating the effectiveness of chemical filters. The OG4's copper and silver sensors measure the rate of corrosion in real-time. An internal data logger stores the results to be accessed through the internet or directly transmit to a process control system. Ideal for control rooms, server rooms, motor control centers, rack rooms, or other areas where corrosion is a concern, the OG4 prompts preventive action before serious problems develop.



Benefits

- Indicates the level of corrosion before severe damage occurs
- Prevents costly repairs and production downtime
- Tracks peaks and trends to determine the level of corrosion
- Easy access to data and graphs
- Readings correspond to ISA Standard 71.04-2013
- Low maintenance: Sensors need replacement at 4000 Angstroms of cumulative corrosion growth
- RoHS compliant

Features

- Measures corrosion, temperature, and relative humidity on a continuous basis
- Direct interface provided by the backlit LCD and keypad
- Remote power from network cable (PoE)
- 4-20mA connection with existing facility management systems or distributed control systems (DCS)
- AA battery-powered for remote or inaccessible areas
- Provides incremental and cumulative corrosion data
- Long service life
- Accurate within $\pm 0.5-1\%$ of full span

Principle of Operation

The OG4 comes with two quartz crystal microbalance (QCM) sensors, one that is plated with copper and another with silver. The QCM is used to measure the corrosive film that results from the environment. This highly sensitive method of measurement will indicate contaminant levels at or less than one part per billion (1 ppb). The corrosion film thickness is measured and recorded in Angstroms (Å). This measurement corresponds directly to ISA Standard S71.04-2013.

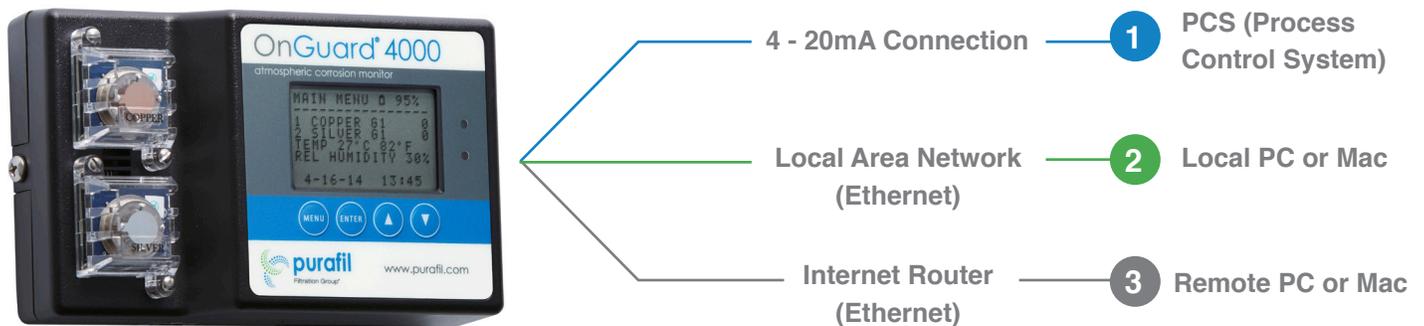
ISA STANDARD ANSI / ISA-71.04-2013*

Severity Level	Copper Corrosion	Silver Corrosion
G1 - Mild	<300 Angstroms / 30 days	<200 Angstroms / 30 days
G2 - Moderate	<1000 Angstroms / 30 days	<1000 Angstroms / 30 days
G3 - Harsh	<2000 Angstroms / 30 days	<2000 Angstroms / 30 days
GX - Severe	>2000 Angstroms / 30 days	>2000 Angstroms / 30 days

PRODUCT BULLETIN

ONGUARD 4000

3 Ways to Connect



Connectivity Benefits

- Easy to install
- Uses Simple Network Management Protocols (SNMP)
- Connect using any device with a web browser
- Communicate via local network and remotely over internet
- Capable of wireless connectivity with OTS adapters like Netgear WNCE2001, Linksys WET610N
- Enable email alerts for alarm thresholds

Connectivity Requirements

Special care should be given to selecting the location when installing the OG4. Select a clean, dry location free of excess vibration where the temperature will be between -10° and 75° C (14° and 167° F) and the relative humidity will be between 10% and 95% non-condensing. It should be placed near the electronics, or within the protected space, to provide an accurate representation of the air affecting the equipment.



About Purafil

Purafil is the global leader for protecting people, processes, and investments by engineering and manufacturing customized clean air solutions. Since 1969, we have earned the customer loyalty of 20,000 companies, delivering world-class expertise and driving technical standards of the industry. We offer chemical filters, equipment and monitors in four vertical markets: Industrial, Commercial, Electronics and Wastewater. Purafil delivers superior customer value and provides insight on the markets.