

USER **MANUAL**

VERTEX C ANALYZER

Draft Version Internal Use Only

Honeywell

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1 Safety

Read this information before you start using your device.

Trademarks





Brand or product names are trademarks of their respective owners. The following brand or product names are trademarks of Honeywell:



- Honeywell Vertex™ Compliance
- Chemcassette®
- Teflon®
- Sola/Hevi-Duty

General Safety

Follow all installation and operational instructions to ensure the safe and reliable operation of this unit. If this monitor is used in a manner not specified by Honeywell Analytics Inc., the protection provided by the equipment could be impaired.

Continuous Monitor Symbols

Symbol	Description
	Lifting instructions, low clearances, slipping/tripping hazards, minor corrosive dangers. Also used when defining personal protective equipment (gloves, dust masks, etc.)
	Personal injury risk: machinery hazards around guarded equipment, moving parts, crush/pinch hazards, flying debris, and arc flash hazards.
	The most dangerous or potentially lethal hazards: unguarded equipment, confined space entrances, and lockout labels.
	Caution: possibility of electric shock

Symbol	Description
	Caution: hot surface
	Protective conductor terminal (ground terminal)

EMC Considerations

Your Honeywell Analytics continuous gas monitor has been designed to comply with Electromagnetic Compatibility (EMC) standards applicable at the time of its manufacturing. The design includes filtering, shielding and bypassing techniques. At the time of certification, simulated customer Input/ Output (I/O) schemes were tested.

All methods used in your equipment for emission suppression and reduction of susceptibility are interactive. Modifications to the monitor could result in increased emissions and higher vulnerability to other radiated fields.

Following the guidelines in this EMC Considerations section will ensure your monitor maintains the enhanced degree of EMC integrity. The guidelines listed apply only to I/O emissions and do not apply to A.C. and D.C. monitor power connections.

FCC Compliance Statement

CAUTION: Changes or modifications not expressly approved could void your authority to use this equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NCC Compliance Statement

取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

Without permission granted by the NCC, any company, enterprise, or user is not allowed to change frequency, enhance transmitting power or alter original characteristic as well as performance to an approved low power radio-frequency devices. The low power radio-frequency devices shall not influence aircraft security and interfere legal communications; if found, the user shall cease operating immediately until no interference is achieved. The said legal communications means radio communications is operated in compliance with the Telecommunications Management Act. The low power radio-frequency

devices must be susceptible with the interference from legal communications or ISM radio wave radiated devices.

Cabling

At the very minimum, all cables should include a braided shield. Ideal results have been obtained with twisted pair cabling which has a foil shield surrounding each pair plus foil and 90% braid shielding around the bundle. In addition, ensure local electrical code requirements are met.

The next cable parameters must be considered:

Braid	Must have a minimum 90% coverage
Foil	When used with braid, provides 100% coverage. Do not use foil alone. It has a tendency to break.
Twisted Pair	Provides for cancelling of magnetic fields
Stranded Pair	Provides the greatest surface area
Shield Termination	Continuation of the shield to the cabinet earth ground is most important. For discrete wire terminations, pigtailed to the cabinet (connector) ground should be extremely short (no greater than three inches). For multiconductor connector terminations, only 360° shielded shells should be used.

Connectors

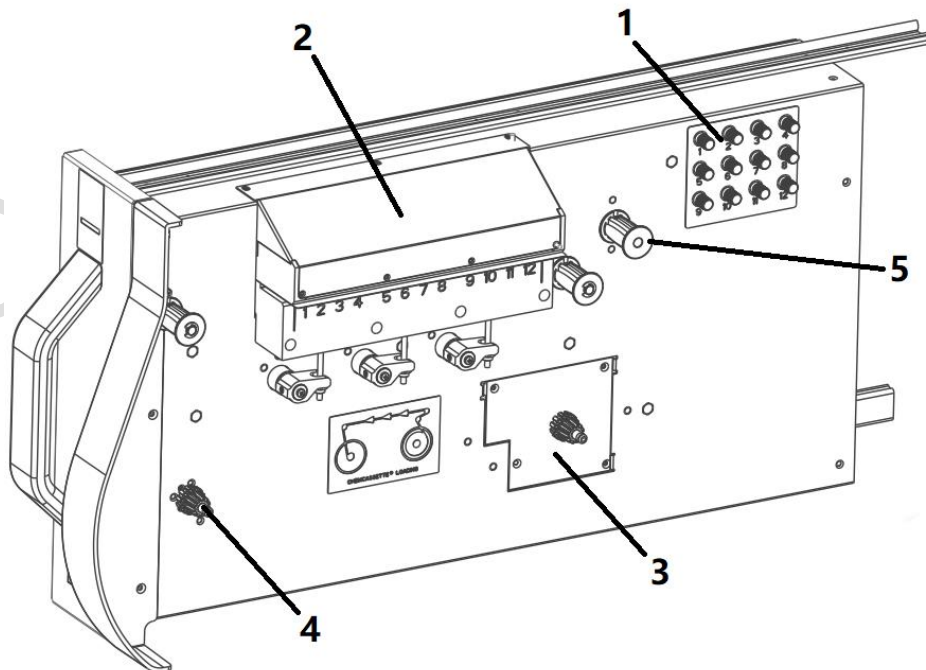
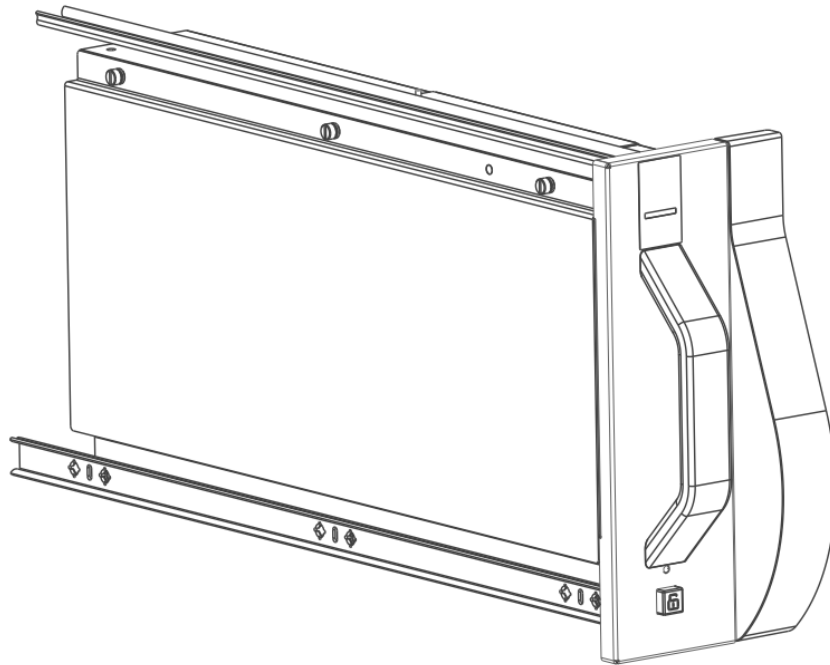
All qualification and certification of Honeywell Analytics products were achieved with high quality connectors, providing 360° shield coverage. These connectors generally had metal shells.

Failure to properly secure the connector to the equipment will result in high emission levels. Also, poorly constructed, or improperly assembled connectors can be a high source of radiated noise and provide a path for external signals into the monitor.

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2 Introduction

Analyzer side panel — Exterior

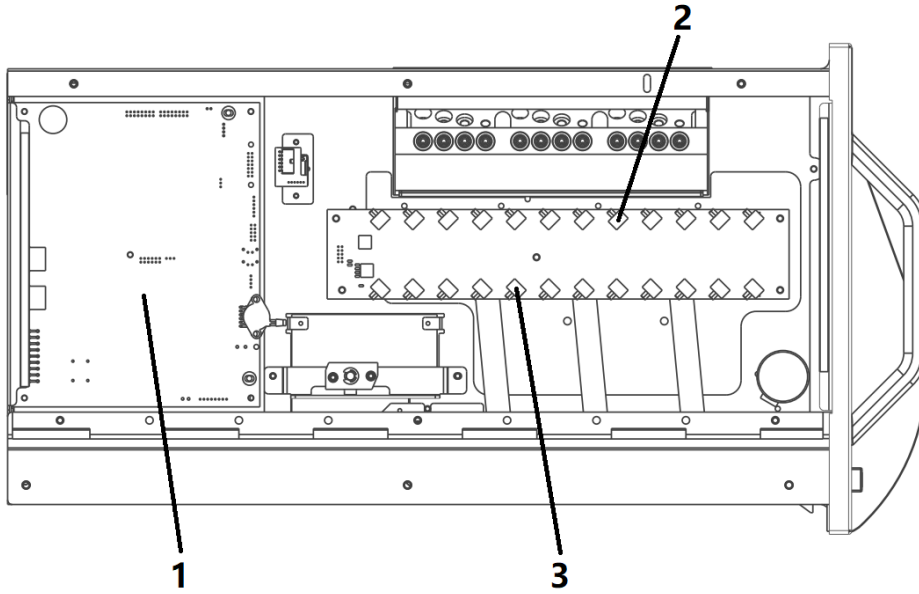


1. Needle Valve for flow adjustment
2. Optics Block
3. RFID reader
4. Take-up reel
5. Tape guide roller



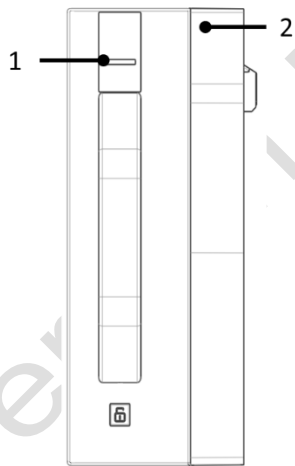
1. Analyzer Number Tag
2. Analyzer Status LED.
3. Analyzer Release Button

Analyzer side panel — Interior



1. Analyzer Main Board
2. Sample pressure transducers
3. Sample flow transducers

Analyzer — Front view



1. Analyzer Status LED
2. Analyzer Number Tag

Chemcassette



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Clean the Optics

Clean Chemcassette optics annually or whenever optics verification error occurs. Compressed air is required

1. Open the Optics Block Gate.
2. Remove the Chemcassette.
3. Open the Vertex Cside panel.
4. Remove tubing (shown in photo) one at the time and blow out with compressed air.



5. Re-secure side panel and reload the Chemcassette.

NOTE

Remove and clean one port at a time to insure proper orientation of tubing. Do not remove the capillary tubing (microtubes). After cleaning the Optics, the cleaning counter should be reset to avoid unnecessary maintenance warning due to Optics cleaning due.

CAUTION

Failure to replace and retighten hardware after service can adversely affect instrument performance and electromagnetic radiation compliance (EMC). Make certain all fasteners are reinstalled and firmly fastened.

3 Additional Information

Specifications

Size	24.4" x 13" x 6" (62x33x15cm)
Weight	≤ 27lbs (12kg)
Operating voltage	24VDC
Max power consumption	72Watt
Certificate	UL/IEC 61010-1 FCC NCC
Transport time	Less than 50 seconds up to 325ft with thin wall tube (0.190"ID)
Sample linetubing	1/4 in. (6.35 mm) O.D. x 0.190in. (4.83 mm) (Thin wall)
Tubing length	Up to 400ft (120m) with thin wall
OPERATING CONDITIONS	
Temperature	59°F to 95°F (15°C to 35°C)
Humidity	20-80% RH
Altitude	-1000 ft. (-305 m) to 6000 ft. (1829 m) above sea level

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