

MicroSpec™ MCP-200 Infrared Analyzer

Applied Analytics Data Sheet No. DS-003A

CO

CO₂

CH₄

C₂H₄

H₂O



A rugged, turnkey IR photometric module.

From the MicroSpec series comes the MCP-200, a concentration monitor for species that absorb IR radiation. This solid state package combines a non-dispersive IR detector and a proprietary optical path design. Engineered to be compact and modular, the MCP-200 excels as both a rugged standalone and an integrated component.

Features

- » Continuously measures the analyte's chemical concentration in a liquid or gas process stream
- » Totally solid state build with no moving parts — modern design for low maintenance
- » Compact modular design which reads into any Applied Analytics HMI
- » Industry standard I/O (4-20 mA output)
- » Decades of field-proven performance in the world's harshest industrial environments

MicroSpec™ MCP-200 Infrared Analyzer

Applied Analytics Data Sheet No. DS-003A

All performance specifications are subject to the assumption that the sample conditioning system and unit installation are approved by Applied Analytics. For any other arrangement, please inquire directly with Sales.

Subject to modifications. Specified product characteristics and technical data do not serve as guarantee declarations.

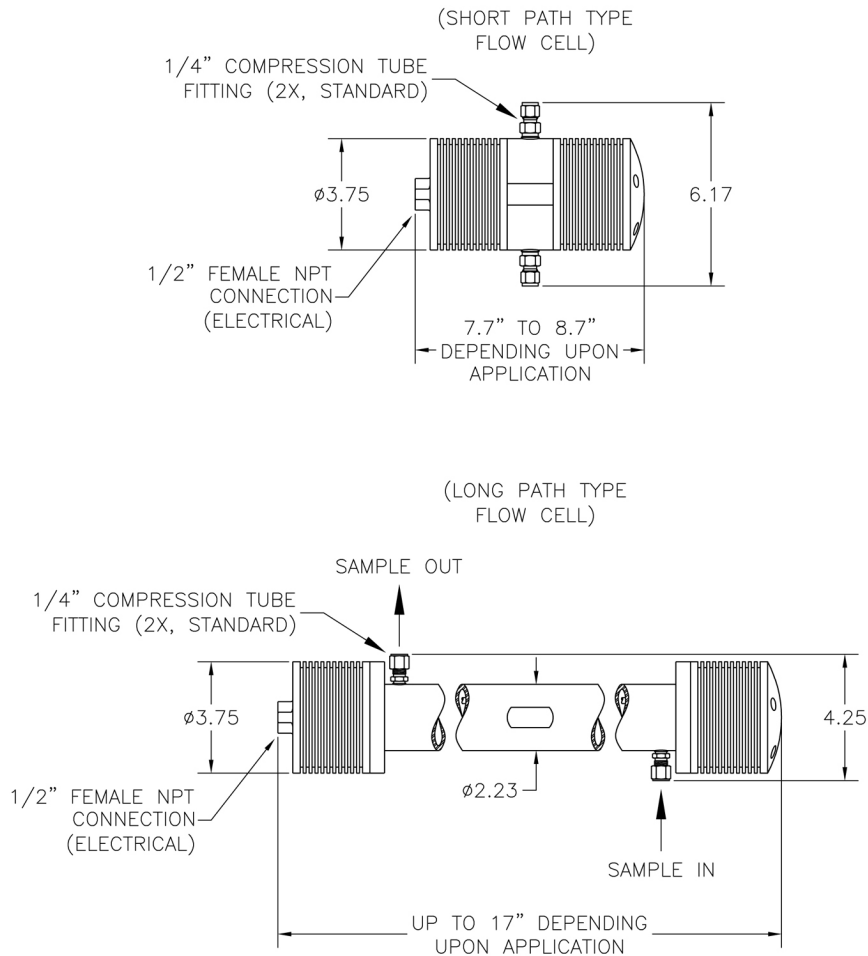
Technical Data	
General	
Measurement Principle	Non-dispersive IR photometry (2 to 10 micron)
Light Source	Tungsten black body source
Sample Medium	Gas or liquid
Sample Introduction	Continuous flow from positive pressure stream
Sample Conditioning	Custom design per application
Analyzer Calibration	If possible, analyzer is factory calibrated with certified calibration fluids; no re-calibration required after initial calibration; measurement normalized by Auto Zero
Reading Verification	Simple verification with samples
Human Machine Interface	Applied Analytics standard HMI: industrial controller with touch-screen LCD display Data sheet: http://aai.solutions/documents/AA_DS202A_HMI.pdf
User Interface	ECLIPSE™ Runtime Software Data sheet: http://aai.solutions/documents/AA_DS203A_Eclipse.pdf
Data Storage	Solid State Drive Data sheet: http://aai.solutions/documents/AA_DS204A_SSD.pdf
Enclosure	Standard: wall-mounted, carbon steel NEMA 4 enclosure Options in data sheet: http://aai.solutions/documents/AA_DS401X_Enclosures.pdf
Available Certifications	Standard: General Purpose Available Options: ATEX, IECEx, PESO <i>Please inquire with your sales representative for additional certifications (CSA, FM etc.).</i>
Measuring Parameters	
Repeatability	±2% full scale
Accuracy	±2% full scale
Stability	±2% full scale / 24 hours
Warm-Up Time	2 minutes
Sample Conditions	
Sample Temperature	-20 to 50 °C (-4 to 122 °F) Contact Applied Analytics for temperatures above 50 °C (122 °F)
Sample Pressure (max)	500 psi
Ambient Conditions	
Analyzer Environment	Indoor/Outdoor (no shelter required)
Ambient Temperature	Standard: 0 to 35 °C (32 to 95 °F) Optional: -20 to 55 °C (-4 to 131 °F) <i>To avoid radiational heating, use of a sunshade is recommended for systems installed in direct sunlight.</i>
Physical Specifications	
Dimensions	Diameter: 3.75" diameter Length: between 7" and 17" (application-dependent)
Weight	10-30 lbs. depending on path length

MicroSpec™ MCP-200 Infrared Analyzer

Applied Analytics Data Sheet No. DS-003A

Process Connections	1/4" tube fittings
Wetted Materials	Standard: K7 glass, Viton, stainless steel 316L <i>Various custom materials available — please inquire.</i>
Utility Requirements	
Electrical Requirements	5 VDC, 24 VDC controller
Power Consumption	7 watts (maximum)
Outputs/Communication	
Communication	Serial communication with Applied Analytics HMI <i>The HMI provides 1x galvanically isolated 4-20mA output per MCP-200.</i>
I/O Electronics	Voltage/Current Interface Module (i.e. I/O Board) Data sheet: http://aai.solutions/documents/AA_DS205A_VCIM.pdf

MCP-200 Mounting Dimensions



NOTE: ALL FLOW CELLS HAVE TWO 1/4"-20 X .30" DEEP MOUNTING HOLES LOCATED ON THE BACK SIDE

MicroSpec™ MCP-200 Infrared Analyzer

Applied Analytics Data Sheet No. DS-003A

Revised 28 September 2021



www.aai.solutions

Headquarters

Applied Analytics, Inc.
Burlington, MA, USA
sales@aai.solutions

North America Sales

Applied Analytics North America, Ltd.
Houston, TX, USA
sales@appliedanalytics.us

Brazil Sales

Applied Analytics do Brasil
Rio de Janeiro, Brazil
vendas@aadbl.com.br

Europe Sales

Applied Analytics Europe, AG
Genève, Switzerland
sales@appliedanalytics.eu

Middle East Sales

Applied Analytics Oil & Gas Operations, L.L.C.
sales@appliedanalytics.ae

India Sales

Applied Analytics (India) Pte. Ltd.
sales@appliedanalytics.in

Asia Pacific Sales

Applied Analytics Asia Pte. Ltd.
Singapore
sales@appliedanalytics.com.sg

China Sales

Applied Analytics China Limited
China
sales@appliedanalytics.cn

© 2021 Applied Analytics, Inc. Products or references stated may be trademarks or registered trademarks of their respective owners. All rights reserved. We reserve the right to make technical changes or modify this document without prior notice. Regarding purchase orders, agreed-upon details shall prevail.

Applied Analytics is a registered trademark of Applied Analytics, Inc.