

MFA-SERIES

Pyxis®

Re-Invented, Pump-Free Wet Chemistry Analyzers.

Introducing low maintenance, high-precision wet chemistry monitoring for critical water and process applications.



OVERVIEW

The Titronex™ MFA Series represents a new generation of pump-free online colorimetric analyzers designed to simplify water chemistry monitoring while significantly reducing maintenance. Unlike conventional systems that rely on multiple peristaltic pumps and tubing assemblies, the MFA platform operates directly from a pressurized process sample, utilizing integrated ultrasonic flow control and sealed disposable reagent cartridges to maintain stable measurement conditions.

This simplified architecture minimizes mechanical wear, reduces service requirements, and improves long-term reliability. Available across multiple analyzer formats—including ultra-low hardness, free and total chlorine, orthophosphate, and anionic polymer—the MFA Series delivers accurate, application-specific monitoring across a wide range of water treatment and process systems.



SIMPLIFY YOUR WATER CHEMISTRY MONITORING.

Multiple Variants Available.

Measure for Calcium Hardness, Free or Total Chlorine, Orthophosphate & Anionic Polymer.

Stable, Reliable Measurement.

Ultrasonic flow control and sealed reagent cartridges ensure consistent, repeatable results.

High Measurement Efficiency.

Up to 4,000–16,000 tests per cartridge for extended operation and reduced downtime.

No Pumps. Less Maintenance.

Disposable reagent cartridges eliminate complex tubing and pump systems.

Turn-Key, Panel Mounted Design.

Compact, fully integrated system for rapid installation and easy user operation.

Connectivity & Control.

Dual 4-20mA Outputs, RS-485 Modbus, Relay Outputs & optional NB-IoT / 4G LTE Connectivity.

Item	MFA-600	MFA-100	MFA-110	MFA-310	MFA-400
Part Number	41748	40196	43485	45224	45477
Target Analyte	Calcium Hardness	Free Chlorine	Total Chlorine	Orthophosphate	Anionic Polymer
Range	0–5ppm Ca as CaCO ₃	0–5ppm as CL ₂		0–25ppm as PO ₄	0–20ppm as PAA
Measurement Method	Chlorophosphonazo III	DPD Colorimetric Method (N, N Diethyl-1,4 Phenylenediamine)		Molybdovanadate (Yellow) Method	Turbidimetric Method
Reagent Required	Hardness-600	FCL-100	TCL-100	Phosphate-310	Polymer-400
Reagent Part Number	37109	36421	35700	31719	30545
Reagent Shelf Life	12 Months	6 Months	6 Months	12 Months	12 Months
Measurement Capacity	up to 4,000 Tests	up to 16,000 Tests	up to 16,000 Tests	up to 8,000 Tests	up to 16,000 Tests

Item	MFA-Series General Equipment Specifications
Measurement Interval	Selectable: 1min, 2min, 5min, 10min, up to 360min - Configurable via the Controller Menu
Sample Inlet Pressure	7.25–72.5psi (0.05–0.5MPa)
Sample Inlet Flow Range	100–500mL/min
Sample Inlet/Outlet	¼ inch Tube Fitting
Sample Waste Outlet	¼ inch Tube Fitting
FS-100 Ultrasonic Flow Meters and Control Valves	
Range of Measurement	0–3,000mL/min
Resolution / Accuracy	1mL/min / 10mL or ±1% of the value, whichever is greater
Operation Mode	Operates in Flow Control (C) Mode, Recommended Control Flow Rate Range is 100–500mL/min
UC-60 Display	
Display	4.3inch LCD Color Touchscreen & Button Interface
Analog Outputs	(2) 4–20mA Current Outputs
Digital Outputs	(1) Isolated RS-485, Modbus RTU
Relay Output	(2) SPST Relays (Dry Contact) / Contact Rating: 5A 250VAC/30VDC
Power Supply	100–240VAC, 50/60Hz
USB Interface	For Data Downloading and Firmware Upgrade
Humidity	5–95% No Condensation
Protection	IP-65
4G CloudLink™	Included and Activated upon request with enrollment - Contact Pyxis Lab, Inc. for Details
PANEL	
Operating Temperature	32–122 °F (0–50 °C)
Storage Temperature	-4–158 °F (-20–70 °C)
Dimensions	144mm H x 144mm W x 120mm D

TITRONEX MFA-SERIES COMMAND WET CHEMISTRY.

Contact Pyxis Lab, Inc. for More Information

