

Local Automation, Secure Remote Monitoring and Control

SmartController™ Classic

The SmartController™ combines the functions of a PLC, HMI, and secure cloud gateway into a single device.

Easy-to-use Sunlight Readable User Interface

Use the navigation buttons to page between all setpoints, monitored parameters, and modes. Use the +/- buttons to change setpoints and modes. The 2.7" sunlight readable LCD ensures easy readability even in direct sunlight.

Python Programmable

Program custom applications or customize existing applications (SmartLift, SmartPump) with the world's most popular programming language: Python. Our WhiskerIDE development environment let's you write, download and test programs, provision the device in the cloud, and manage revisions.

Reliable and Secure

The internal LTE CAT M1 cellular modem connects to the cloud using AT&T, T-Mobile or Verizon, automatically switching between carriers for best QOS. All data is double encrypted – once between the modem and the tower, and again between the device and our cloud platform. Each device has unique, revocable encryption credentials.

Expandable

The SmartController™ is configured with two Modbus RTU ports: client and server. The server port can be used to interface with existing automation. The client port can be used to add I/O (up to 192 analog and digital via m.Smart field I/O), chemistry analyzers (m.Chem™ PH, Turbidity, Cl-, etc), level sensors (PulsarQ™ radar level sensor) and any other technology that supports the Modbus protocol.

IP67 Rated, Chemically Resistant

The SmartController™ enclosure is waterproof and does not degrade in direct sunlight. Its made from PETG with carbon fiber reinforcement, making it chemically resistant as well.



Sunlight Readable LCD

- View all process values
- Change modes and setpoints
- Status lines – RSSI, pump run/error

Secure, Reliable Cellular Connectivity

- LTE CatM1 – works with AT&T, T-Mobile and Verizon
- Double encryption with unique, revocable encryption creds per device
- Automatically pulls updated configuration and programming from cloud

Programmable and Expandable

- Customize automation programs in Python programming language
- Expandable to 192 digital and analog I/O via m.Smart™ field I/O
- Expandable with 3rd party Modbus RTU field I/O systems

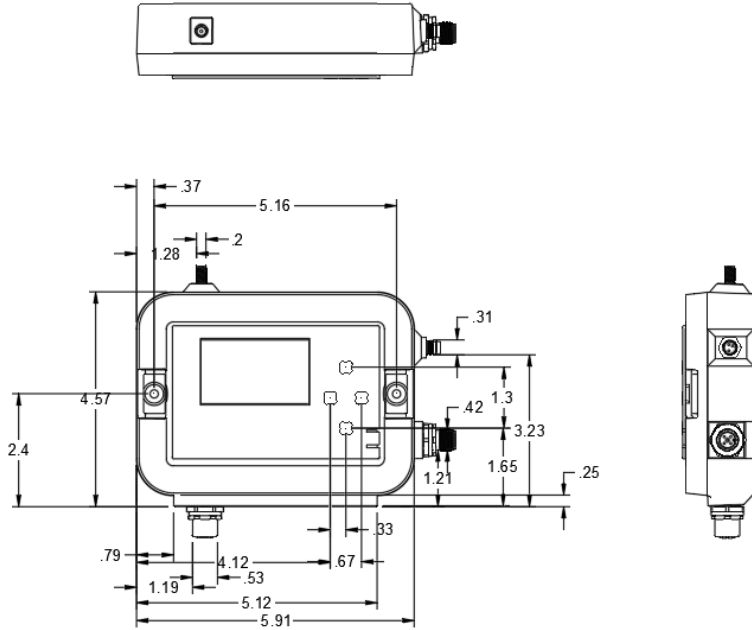
Durable and Easy to Maintain

- IP67 rated PETG enclosure – chem and waterproof
- 10 minute field replaceability makes maintenance a breeze

Wastewater	Monitoring and control for lift stations (up to 6 pumps), clarifiers, chemical feed, headworks, generators, power quality, weir flow monitoring, and just about any other application in a wastewater system.
Water	Monitoring and control for pump stations, wells, towers, tanks, master meters, leak detection, high service pumps, etc.
Other	Cloud based monitoring and alarming for existing SCADA systems, flow meters, leak detection, lake/pond level, etc.

SMART Controller

Mechanical



Ordering Information

P/N: MS-SC-DAN-MWD0-0000



Specifications

	Parameter	Specification
Electrical	Supply Power	9-30V DC
	Power Consumption	<200mW
	Modbus RTU client interface	RS-485 (M12 A code female)
	Modbus RTU server interface	RS-485 (M12 A code male)
Mechanical	Enclosure Rating	IP67
	Enclosure Material	PETG-CF
	Operating Temperature Range	-40 to +85°C
	Size	4.57x5.91"
	Mounting	Two 4mm screw holes
Comms	Cellular Radio	CAT M1
	Carriers	AT&T, T-Mobile, Verizon
	Encryption	AES-256 (double)
	Cloud update period (up to 64 process variables)	1 min
	Antenna	3dBi omnidirectional, 9dBi high gain