Halogen D20 Display/Controller

Overview

The Halogen D20 stands out as one of the most sophisticated instrumentation controllers on the market. Thanks to its sensor-detection feature, it's engineered for seamless integration with **MP5-A** and **MP-Mono** sensors. This controller efficiently displays **multiple parameters** on a single interface, making it highly user-friendly and readable.

- **Compliance:** Adheres to both US and EU Safety and EMC standards.

- **Programmability:** The D20 features an onboard SD card for easy firmware updates, ensuring it keeps pace with emerging functionalities.

- **Cloud Connectivity:** Facilitates remote cloud connections.

The Halogen D20 combines cutting-edge technology with practical features, which makes it ideal for advanced monitoring and control needs.

Features and Benefits

- The latest display technology offered by Halogen Systems
- Data logging capable of storing over 1 million lines of logged data on an included SD card
- Display and sensor firmware can be easily updated with the press of a few keys on the display panel
- Autodetection of buffers for easy pH calibration
- Integrated real-time clock
- Optional communication board with cellular/Ethernet connection and Bluetooth® mobile app
- Standard with 120VAC NEMA plug and M12 sensor connection for fast installation
- IP65 rating for outdoor use
- Four (4) 4-20 mA outputs
- One alarm-dry contact
- Two-relay output switching (120/240VAC at 5A)

Options

Power:	24VDC
	120/240VAC (hard wired)
Communication board:	Mobile app
	North American cellular model
	EMEA cellular module
	Ethernet (Modbus® over TCP/IP)
	BAC
	RS485 Modbus
Mounting:	Wall mount (standard)

Technical Specifications[*]

Overall	
Description	Microprocessor-controlled, menu-driven controller that communicates with the sensor
Dimensions	6.3" H x 6.3" W x 4" D (160 x 160 x 101.6 mm)
Weight	3 lbs. (display)
Display technology	3.5" TFT
Enclosure rating	IEC/EN 60529–IP 65, NEMA 250 type 4X, plastic enclosure
Installation category	Category II
Compliance certifications	CE, ETL certified to UL and CSA safety standards (with all sensor types), FCC, EU, UKCA
Warranty	12 months

Environmental	
Operating temperature	-20 to 60°C (-4 to 140°F) (8W (AC)/9W (DC) sensor load) -20 to 45°C (-4 to 113°F) (28W (AC)/20W (DC) sensor load) Linear derating between 45 and 60°C (-1.33 W/°C)
Storage conditions	-20 to 70°C (-4 to 158°F), 0 to 95% relative humidity, non-condensing
Pollution degree	4

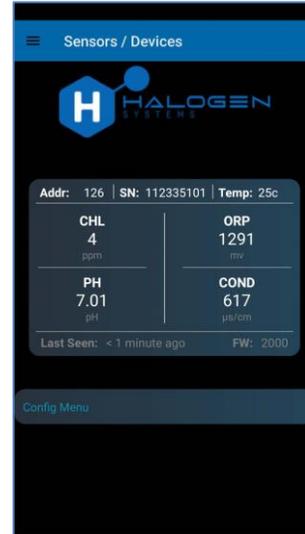| Power, data storage, and connectivity	
Power requirements	85 to 240VAC ±10%, 50/60Hz; 1 A (MP5 sensor 5.1W, D20 6.5W with sensor load)
Protection class	I, connected to protective Earth.
Relays	Four relays (SPDT), Two Control, Two Alarm Wire gauge: 0.75 to 1.5 mm² (18 to 16AWG) Maximum switching voltage: 100 - 240VAC Maximum switching current: 5A Resistive/1A pilot duty maximum switching power: 1200VA resistive/360VA pilot duty
Communication	Analog: Four 0-20mA (or 4-20mA) analog outputs Digital: Modbus RTU standard
SD card	Used for data upload and software download, capable of est. 1M data points/sensor
Real-time clock	Battery, estimated to last 5 years

* Subject to change without notice

Order information

Part #	Base	Input power cable	Cellular Communication	Output connector sensor 1
D20-L	24VDC	None-conduit	None	M12-4 sensor
	120/240VAC 50/60Hz	None-conduit	None	M12-4 sensor
D20-OTA-C	120/240VAC 50/60Hz	None-conduit	Cellular North America	M12-4 sensor
D20-OTA-H	120/240VAC 50/60Hz	18 AWG cable NEMA 5 P	Cellular North America	M12-4 sensor
D20-OTA-HEU	120/240VAC 50/60Hz	None-conduit	EMEA	M12-4 sensor
D20-H	120/240VAC 50/60Hz	18 AWG cable NEMA 5 P	None	M12-4 sensor

Adder Communications module

- Add-on board
- Bluetooth-enabled mobile app duplicates all D20 functions in an easy-to-use familiar interface
- North America cellular model
- EMEA cellular module
- Ethernet:
    - Modbus over TCP/IP
    - Ethernet IP
    - Profibus
    - BACnet

- The latest in cloud data syncing capability
- Remote troubleshooting
- Lowest cost data plans
- Latest eSIM technology: No SIM cards needed

Communications module	
Communication	Modbus TCP/IP Ethernet IP module Bluetooth mobile app Profibus
Network connectivity	LAN: Ethernet connector (10/100 Mbps) Cellular: External LTE CAT-M1 and 4G (North America) or (EMEAA) modules available BLE
Mobile App	iPhone or Android
Ethernet/IP	Optional module for Ethernet/IP BACnet/IP Modbus TCP/IP