

MC3 System Configurations

The EcoChem MC3 CEMS can be provided in two main configurations, NEMA 12 freestanding enclosure suitable for reasonably clean and controlled environments, and a wall-mount NEMA 4X configuration suitable for outdoor or hazardous environments found in refineries or chemical plants.

Both configurations will have the same probe at the sampling location and heat traced sample tubing connected to the system below. In addition, the high temperature sample system will be exactly the same for both configurations.

Standard MC3 System



The NEMA 12 enclosure is a free standing 72 “ x 36” x 36” Hoffman enclosure with full frame 3 point latch doors on the front and left side. It provides ease of access for all components of the complete MC3 system including pumps, valves, PLC and touch screen field friendly interface. The enclosure weighs approximately 700 pounds.

MC3 P System



For installations where the sample location is remote from a clean environment, or where sample line length is an important concern, the MC3 system can be provided in a NEMA 4X, 3 point latch enclosure, either Fiberglass or SS. The enclosure is 48” x 36” x 16” and is designed to be wall-mounted. The MC3 P enclosure is temperature conditioned by a thermo electric device however, it is required that some sort of shade and/or rain shield be provided. With the MC3 P, a wireless portable touch screen will be provided so that the maintenance staff can interact with virtually all MC3 functions without opening the doors. The MC3 P enclosure weighs approximately 230 lbs.

Gas	Typical Low Range*	Typical High Range*
SO2	0-10 PPM	0-1,000 PPM
NO	0-10 PPM	0-500 PPM
NO2	0-10 PPM	0-500 PPM
N2O	0-10 PPM	0-1,500 PPM
CO	0-10 PPM	0-5,000 PPM
HCl	0-10 PPM	0-100 PPM
NH3	0-10 PPM	0-100 PPM
CH4	0-10 PPM	0-1,000 PPM
CO2	0-1,000 PPM	0-40%
H2O	0-2%	0-50%
O2	0-10%	0-25%

The MC3 analyzer is based on infra-red technology. In addition to the standard measurements listed in the table on the right, contact EcoChem for other components and measurement ranges

* Typical range for application -- user can select appropriate range; dual ranges possible

Weight	56 lb. (25 kg) analyzer only
Dimensions (analyzer)	Standard 19" rack mount
W x H x D	19" x 8.75" x 23" (48 cm x 22 cm x 58 cm)
Flow rate	2-7 liter per minute with 1/4" Swagelok connectors
Display	Menu –driven LCD panel can be field-customized
Power	115 AC / 60 Hz or 220 volts AC / 50 Hz
Accuracy	± 2 % of full-scale value
Lower Threshold	1 % of lowest range
Response Time	10 seconds
Output Signals	Analog: 8 signals of 0/4 – 20 mA Digital: 2 ports RS 232-C, 1 port RS 422-A Relays: Failure Indicator, Service and Maintenance
Operating Temperature	32 – 105°F (0 – 40°C)

Advanced software is provided with every MC3 based system for remote access, diagnostics and trouble-shooting.

