**ENGINEERING SPECIFICATION**

**MGC2 Series Control Panel**

# SECTION XXXXXX GAS MONITORING AND CONTROL SYSTEM

## PART 1 – GENERAL

* 1. **RELATED DOCUMENTS**

Applicable portions of all documents listed in the index as well as Section XXXXX apply to work of this section.

* 1. **SCOPE**

Work under this section of the specifications shall include the furnishing and installation of a complete gas monitoring and control system including all related accessories.

* 1. **SUBMITTALS**

Furnish submittal data for the following materials and equipment in accordance with the requirements of Section XXXXX “General Requirements for Mechanical Trades.”

* 1. Gas monitoring and control system.
	2. All related devices.

**PART 2 – PRODUCT SPECIFICATIONS**

* 1. **CONTROL PANEL**
1. The control panel shall provide continuous monitoring of the designated gas levels in the assigned area and control the ventilation system via digital outputs in accordance with all applicable codes and standards.
2. The control panel shall have the ability to interface via analog or digital outputs to any compatible electronic analog control, DDC/PLC control or automation system.

1. The control panel shall have the capability to accept any combination of 4-20 mA transmitters provided by INTEC Controls.
2. The control panel shall accept up to **{*customer chooses depending on panel specifications: 4, 8, 12 or 16*}** analog inputs with four (4) digital inputs. Each analog input can have five (5) thresholds/set-points.
3. There shall be five (5) relay outputs and two (2) independent 4-20 mA outputs available for every four (4) analog inputs. The outputs shall be programmable in the field. Each sensing point is readily addressable to any controller analog output, and each sensor threshold is assignable to any relay.
4. The alarm shall be acknowledged by an external manual reset switch via the digital input or through the control panel menu.
5. The control panel shall have status indicator LED’s located on the front; Red = Fail, Flashing Yellow = Alarm.
6. The control panel shall include two lines, backlit LCD display of 16 characters, at 1 digit resolution. The control panel shall display the status of all active sensors and capture any system errors for review and reset.
7. The control panel shall have a date function that notifies the operator that system maintenance is due and display a phone number to call.
8. The controller shall be NRTL performance tested and certified to ANSI/UL 2017.

The contractor shall supply the PolyGard® Series MGC2 **{customer chooses: 4, 8, 12, or 16}** analog controller, by INTEC Controls; phone (858) 578-7887; fax (858) 578-4633.