E-STOP & O₂ MONITOR CONTROL
EMERGENCY STOP CONTROL SYSTEM FOR INERT SERVICE

The E-stop control system is for use on both bulk and MicroBulk installations where a remote method of automatic shutdown is required. The automatic shutdown can be initiated by a number of methods to include a manual push button, a low oxygen alarm initiated by an oxygen monitor, or a loss of ventilation. The shutdown occurs through the use of a pneumatic actuated shutoff valve, which is a requirement for the system to operate properly.

**Features**

The E-Stop Control System Interfaces with Chart’s Oxygen Monitor/Alarm.

The remote actuated liquid nitrogen supply valve will close if any of the following conditions occur:

- Oxygen monitor goes into a low oxygen alarm state.
- Oxygen monitor loses its power or detects an internal fault.
- The red mushroom E-Stop button is pushed.
- An auxiliary alarm condition occurs.
- Power is lost to the E-Stop control system.

The E-Stop Control System Provides Positive Indication:

- When the power is on and all conditions are safe, the system has a green indicating light illuminated.
- When any alarm happens, a red indicating light becomes illuminated, which will identify which alarm condition exists.
- When the alarm condition exists, an audible horn sounds to alert personnel in the area.
- After an alarm occurs, a manual reset is required to resume the flow of inert gas. System will not restart on its own.

**Specifications**

- Power – 120 VAC
- Air Supply – 20-145 psig max., 1/4” fpt connection
- Dimensions – 16” H x 14” W x 6” D
- Designed to work with pneumatic actuated valves, which require air pressure to open and fail safe in the closed position
- Air to actuator – 1/4” fpt connection (fittings are supplied to accommodate 1/4” copper or 1/4” flexible poly tube)
- Internal pressure regulator to accommodate different actuator requirements

Control System

Display Panel
The Remote Oxygen Depletion Safety Alarm is designed to protect employees and visitors near stored inert gases like nitrogen, argon and others. Easy to install and operate.

- New faster-responding sensor uses the latest oxygen sensing technology
- Can remote up to 300 feet from the main unit
- Reliable connection with standard Ethernet cable—25 ft included
- Large display clearly indicated current O₂ level and temperature
- Three relays automatically control fans, shut-off valves, and other devices
- 4-20 mA output to allow for remote display of values
- 88db audible and visual alarms on both units
- IP54 enclosure

**SPECIFICATIONS**

- **Measurement Range:** 0-25% Oxygen Sensor
- **Alarm Relays (user configurable):**
  - Relay 1: 19% O₂
  - Relay 2: 17% O₂
  - Relay 3: 15% O₂
- **Alarm warm-up time:** < 60 seconds
- **Operating Temperature:** 0-50°C (32-122°F)
- **Calibration:** Manual calibration with nitrogen gas
- **Sensor Life Expectancy:** 15 years

**ELECTRICAL**

- **Power Supply:** 110-240VAC to 6VDC Adapter
- **24VDC hard-wired power option**
- **Power Consumption:** 3 Watts
- **6VDC battery backup connections**
- **Relays:** Peak Current < 2A @ 30VDC or 250VAC, SPDT
- **Relay Color Coding:**
  - Red & White: Normally Open
  - Blue & White: Normally Closed

**ADD-ONS**

- CM-1026 – Dual Strobe Add-on Kit
- RAD-0022 – Additional Remote Display
- CM-1026-5,6 – CO₂ Storage Safety Strobe Tower

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**TYPICAL INSTALLATION**

**CHART P/N**

<table>
<thead>
<tr>
<th>P/N</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>11665631</td>
<td>E-STOP CONTROL MODULE</td>
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<tr>
<td>11682836</td>
<td>BOX E-STOP SECONDARY REMOTE (PUSH BUTTON)</td>
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<tr>
<td>21288211</td>
<td>RAD-0002 OXYGEN MONITOR – THREE ALARM</td>
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<tr>
<td>20800211</td>
<td>TOPWORKS FOR ½ INCH Y PATTERN VJ VALVE*</td>
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<tr>
<td>10623893</td>
<td>CVI PNEUMATIC ACTUATOR FOR TOPWORKS ABOVE*</td>
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*Parts are compatible with most Chart Perma-Cyl MicroBulk Storage Systems equipped with 1/2 inch VJ liquid withdrawal valves. Talk to a Chart Inside Account Representative for other types of equipment.

Order at [chartparts.com](http://chartparts.com)