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Computing devices and peripherals manufactured by DAISY generate, use, and can radiate radio frequency energy, and if not installed and used in accordance with the instructions in this manual may cause interference to radio communications. Such equipment has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against radio interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense will be required to take whatever measures may be required to correct the interference.

Some components may not have been manufactured by DAISY. If not, DAISY has been advised by the manufacturer of the component that the component has been tested and complies with the Class A computing device limits as described above.

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Seller makes every effort to provide clear and accurate technical information on the application of its products in the Operator’s Manual, and assumes no liability for misuse of the information.
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2 Hazardous Area Safety Methods:

2.1 Theory of Operation

[What do Y Purge and X Purge protections have in common? Is there something that summarizes the significance of both protective devices in hazardous areas?]

2.2 Division 1: Y-Purge Protection

Y-purge systems are used for installing electrical equipment in Division 1 hazardous areas*. By installing a Y-purge on an enclosure in a Division 1 area, the rating inside of the enclosure can be reduced to a Division 2 classification. As a result, less costly Division 2 electronic equipment can be safely used in Division 1 areas.

A Y-purge system provides the protective purge and safe gas flow to the enclosure. This system is controlled by the operator, in place of the automatic control provided by X purge systems. To provide more alerts for the operator, the purge system includes alarm contacts, a visible indicator to alert the user and if applicable, an automated control system. This control system is important if pressure is lost within the enclosure, which may be caused by a failure of the protective safe gas flow or of enclosure integrity.

Prior standards required four volumes of air to be circulated through the enclosure. Now, the standards require that the volume of air passed through a given enclosure eliminate any possible flammable concentration of substances within the enclosure (the minimum of four volumes of exchange still applies).

Factory Mutual Class Number 3620 (section 4.2, page 5) states that when “concern exists that all compartments may not be purged, purging tests shall be conducted.” Thus, it is necessary to take into consideration the airflow, pressure, shape of the enclosure and effect of equipment installed within the enclosure.

Please note that DAISY’s systems have been fully tested under the supervision of Factory Mutual to ensure compliance with the standards of FM 3620: 4.2, and include all of the features described above.

*See National Electrical Code articles 500-504 and the NFPA 496, section 2-9.

2.3 Division 1: X-Purge Protection

X-purge systems are used for installing electrical equipment in Division 1 hazardous areas. By installing an X-purge system on an enclosure in a Division 1 area, the area can then be considered a non-rated environment. As a result, normally rated equipment may be installed within the enclosure (within reasonable limits, such as complying with temperature and power restrictions).

An X-purge system is fully automated. The system not only provides the protective purge and maintains positive pressure, but it also automatically controls the connection and disconnection of power supplies and signal paths. A well-designed X-purge system also automatically controls flow rates, internal pressure regulation, purge timing, and switching of states between purge flow and normal operation.

Please note that DAISY’s systems have been fully tested under the supervision of Factory Mutual to ensure compliance with the standards of FM 3620: 4.2, and include all of the features described above.

2.4 Division 2: Non-Incendive Protection

The NEC defines a non-incendive circuit as “one other than field wiring, in which any arc or thermal effect produced under intended operating conditions of the equipment is not capable, under specified test conditions, of igniting the flammable gas-air, vapor-air or dust-air mixture.” Non-incendive circuit designs do not take component failure into consideration, and therefore
have a reduced safety level compared to IS circuit design. They can be worked on while energized without a hot-work permit.
Non-incendive devices can be rated for Division 2 as well as Zone 2 areas without a purge control or other protective device.

*Part of the NEC definition of Division 2 areas.

Please note that DAISY’s systems have been fully tested under the supervision of Factory Mutual to ensure compliance with the standards, and are approved as non-incendive devices for all Division 2 areas.
3 Pre-Installation Testing

Before installing your system in its final location, the system should be tested to verify that the purge system is functioning correctly.

*Please note that all pre-installation testing should always be conducted in a safe area.*

3.1 Division 1: Y-Purge Testing

3.1.1 Equipment Required

- Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 150 SCFH at 20 - 100 PSI
- Fittings and tubing for purge air or inert gas supply (0.25” NPT Male to connect to the inlet of the purge system)
- Local air pressure shutoff valve

3.1.2 Procedure

1. Place the unit in a safe area near a source of the purge gas to be used (compressed air line or other inert gas source).
2. Through a cord grip or other cable-sealing device, bring AC power into the enclosure. **Be sure that the AC power is off.** Connect the AC power temporarily to the Y-purged unit (see drawing E010 or E013 at the end of this manual).
3. Temporarily install a pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P002 at the end of this manual.)
4. **Bleed the purge air or inert gas line to insure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.**
5. Connect the purge gas line to the inlet of the regulator on the Purge Unit.
6. **Apply air or inert gas to the enclosure.** The enclosure may “swell” slightly as the internal pressure increases. This is normal and is not a cause for concern. DAISY enclosures are designed to release excess pressure. **DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.**
7. **Turn the control valve to PURGE.** Look at the flow meter on the front panel to verify that the flow rate is 150 SCFH. If not, readjust the purge regulator to set the flow to 150 SCFH.
8. If the flow meter does not read 150 SCFH, inspect the enclosure for blockage in the purge gas lines and take appropriate action to clear the blockage. If blockages are not obvious, verify that the purge air or inert gas is clean and dry.
9. **Slowly turn the control valve to OPERATE.** If the control valve is turned rapidly, the indicator ball in the flow meter may start oscillating. Look at the pressure gauge on the front panel to be certain that the internal pressure is 1.0” of Water Column. If not, reset the adjustment on the exhaust assembly on the so that the pressure gauge reads 1.0” of Water Column.
10. **Slowly turn the control valve to PURGE.** Make sure that the flow meter reads 150 SCFH. If not, readjust the regulator for 150 SCFH.
11. **Slowly return the control valve to OPERATE and apply power to the enclosure.** The “Pressure Good” LED should be illuminated green. If not, check the internal pressure, it should be between 0.4” and 10.0” of Water Column. The pressure good led must be illuminated green at this time. If it is not, please consult the factory.
12. If the “Pressure Good” LED is not illuminated green, the internal pressure is below 0.4” Water Column and the alarm is on. Turn the enclosure power off and repeat steps 2 through 6.
13. Keyboard button legend (See Image and Diagram below)

(Example image: Button style and location may vary per model.)

<table>
<thead>
<tr>
<th>Button Label</th>
<th>Control</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU-Reset</td>
<td>Computer Control</td>
<td>Press both buttons simultaneously to power on and off the computer.</td>
</tr>
<tr>
<td><strong>OSD Menu/Enter</strong> (On-Screen-Display)</td>
<td>Monitor Settings</td>
<td>Opens the OSD menu and selects/deselects the highlighted item for adjustment.</td>
</tr>
<tr>
<td><strong>OSD -</strong></td>
<td>Monitor Settings</td>
<td>Moves through the menu or decreases the value of the selected item.</td>
</tr>
<tr>
<td><strong>OSD +</strong></td>
<td>Monitor Settings</td>
<td>Moves through the menu or increase the value of the selected item.</td>
</tr>
<tr>
<td><strong>LCD Power</strong></td>
<td>Monitor Power</td>
<td>Turns LCD monitor on and off. Does not affect PC.</td>
</tr>
</tbody>
</table>
3.2 Division 1: X-Purge Test

3.2.1 Equipment Required

- Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 40 to 300 SCFH at 30 to 60 PSI.
- Fittings and tubing for purge air or inert gas supply (0.25” NPT Male to connect to the inlet of the purge system).
- Local air pressure shutoff valve.
- AC power line (with ground) to pigtails (tinned bare wire, stripped 0.25”), 120V, 10A or 240V, 5A

3.2.2 Procedure

1. Place the unit in a safe area near a source of the purge gas to be used (compressed air line or other inert gas source).
2. Temporarily install a pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P007).
3. Bleed the purge air or inert gas line to insure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
4. Connect the purge gas line to the inlet of the regulator on the Purge Unit.
5. Remove the cover of the explosion-proof I/O casting (see drawing P007 at the end of this manual).
6. Connect an AC power line (not plugged into AC power outlet,) to the power interface board (see drawing P008). For connection location and wiring, see drawing E017.
7. Close all access doors and covers.
8. Apply purge gas to the system by opening the shutoff valve (if installed). Adjust the pressure regulator on the air-in box (see drawing P008) so that the pressure gauge indicates 35 PSI.
9. Apply AC power to the unit.
10. Once the pressure inside the unit reaches 1.0” Water Column and at least 40 SCFH, the Purge Status LED will illuminate yellow, indicating that it is purging. If the purge status indicator does not turn yellow, inspect the unit for leakage. The gasketed panels can be checked with a soap solution. If leaks are not obvious, verify that the purge air of inert gas is clean and dry and that the pressure at the inlet is 35 PSI.

11. **DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.**

12. Note the reading on the Pressure Gauge while slowly turning the Air Input Regulator up until the purging process stops and the Purge Status LED flashes red with an error code of 2 – 2 (over pressure) or 3 – 2 (over flow).
13. Remove AC power from the enclosure for a minimum of 30 seconds. Decrease the pressure reading on the pressure gauge by 5 PSI. This change may vary slightly on some units; if in later testing the unit fails with an over flow error (3-2 blink code), decrease the inlet pressure by another 2 PSI. **Note this pressure for use during start-up.**
14. Re-apply AC power. The Purge Status LED will illuminate yellow. The system should purge for a minimum of 8 minutes. The time will vary according to the flow rate of the air into the enclosure; lower flow rates will result in a longer purge time.
15. After the purge is complete, the Purge Status indicator will illuminate green. AC power is now applied to the internal electronics so you should be able to power on the display or PC.

16. If the purge status light blinks red, one of several possible errors has been detected. Please refer to Table 2 on page Error! Bookmark not defined. for an explanation of the possible error codes.
4 Division 1 Installation

4.1 PAC-Seal Connection Instructions
A conduit seal is necessary for most equipment enclosures in hazardous areas. For Y-purge and X-purge systems, they are always required. Please consult your local code for other circumstances.

The sealing compound generally used for PAC-seals is an inorganic, chemically setting, magnesium oxide base material. This compound develops a slight expansion, while hardening into a porcelain-like body. A powder sealing compound is supplied and should only be mixed with water for application.

The sealing compound powder has a shelf life of six months when stored in unopened, tightly sealed containers in a dry location at 70°F. Any equipment accidentally splashed with sealing compound should be cleaned with soap and water before the sealing compound cures. Approximately one ounce of sealing compound is needed per cubic inch of space to be filled.

Please note to always follow all NEC, NFPA, and local codes when installing conduit and PAC-seals in hazardous areas. All knowledgeable personnel, familiar with national and local codes, must supervise hazardous area equipment installations. In Europe your equipment will most likely be installed with cable and cable glands. Refer to EN 60079-14:2003 and local codes when applicable.

4.1.1 Equipment Required
• Four PAC-Seal fittings, 1” NPT or 0.75” NPT for the Y-Purge, 0.75”NPT only for the X-Purge (2 for conduit connection at the enclosure or I/O casting, 2 for connection in the safe area), or sealing conduits. The PAC Seal and conduit size selected will depend on the size and number of conductors, which must be run to the unit. Check the NEC tables (Chapter 9, Table 4) to determine the conduit size necessary
• Conduit for electrical signals and for electrical power (separate runs), NEC and NFPA approved for use in hazardous areas
• NEC and NFPA approved flexible conduit if needed for difficult installations
• Fittings as required for permanent conduit installation NEC and NFPA approved for use in hazardous areas
• Signal cables, power cables, and connectors as required to mate with the equipment within the enclosure or cast aluminum box
• AC power switch for use in the safe area

4.1.2 Procedure
1. Threaded surfaces and pour locations should be cleaned with soap and water and thoroughly dried before proceeding.
2. On a Y-purge system, no entryway is provided by DAISY for power and signal conduits. These entries must be made by the end user. Select a point on the enclosure that matches well with the location of the incoming conduit. Be careful to ensure that the point you have selected is free from obstructions within the DAISY enclosure. Being careful to protect the internal electronics, air pathways, and keyboard surface from filings and other debris, drill or punch holes for the installation of the PAC-Seal fitting (1” NPT or 0.75” NPT, depending on application) in the wall of the enclosure.
3. Install two conduit runs (one signal, one power) between the enclosure (Y-Purge) or the I/O casting (X-Purge) and AC power source (located in a safe area or in an explosion-proof box). See drawing P002 or P007 at the end of this manual.

4. Shake the sealing compound powder well before mixing with water. The recommended mix ratio is 5 parts powder to 1 part clean water, by weight. Place 70°F water into a clean mixing container and gradually add powder to water while mixing. Continue mixing until a uniform consistency is obtained. Mixing may be done with a slow-speed mixer or by hand with a spatula. The minimum amount of water (as specified above) should be used as excess water reduces mechanical strength, increases shrinkage, and delays set time. Failure of the cement to adhere indicates setting has begun, discard cement, do not attempt to re-temper by adding more water.

5. The compound may be applied by pouring, casting, or mechanical dispenser. The sealing compound hardens with an internal chemical-setting action in 18 to 24 hours at ambient temperature. Working time of the sealing compound when the powder is mixed with water is approximately 30 minutes at 70°F. If accelerated curing is desired, low temperature oven drying at 180°F can be used. Do not expose the sealing compound to higher temperatures, constant water immersion, or steam environments while curing. If high humidity resistance is required in the cured product, a moisture-resistant lacquer or silicone coating should be applied to the exposed surfaces.

6. The packing fiber is made from an environmentally safe, non-asbestos material. It is easy to use and forms a positive dam to hold the compound. The fiber is placed around each individual wire or cable at both ends of the cavity for horizontal pouring in the PAC Seal so that the Sealing Compound can encapsulate each completely. For vertical pouring, the packing fiber need only be placed at one end. See drawing P002 at the end of this manual.

7. We recommend a special blend of lubricants, LUBT-2, for use with threaded joints. This lubricant is to be used to prevent galling of the pipe threads when threaded into a coupling, junction box, etc. It insures a quick release and undamaged male and female threads when parts are disassembled. The thread lubricant is high quality lubricant to be used in temperatures ranging from -40°F to +50°F. It is recommended for use in a hazardous location. The PAC Seal Compound, packing fiber and LUBT-2 are available from Killark at http://www.killark.com/.

8. For enhanced reliability of the unit, install an AC line conditioner. AC power lines should be no smaller than 14 gauge and have a TRUE EARTH GROUND.

4.2 Purge Air Line Connection Instructions for Division 1 Y-Purge Systems
This section applies to the following models: 2513, 2516, 2518, 2613, 2616, 2618, 4513, 4516, 4518, 4613, 4616 and 4618.

After the unit has been mounted in its final location in the hazardous area, it must be permanently connected to a purge air or inert gas line and checked for leaks and proper operation of the purge/pressurization system. Only when its pressure integrity has been established should electrical signals and power be brought “live” to the unit.

*Please note to always follow all NEC, NFPA, and local codes when installing conduit and PAC-seals in hazardous areas.* All knowledgeable personnel, familiar with national and local codes, must supervise hazardous area equipment installations.
4.2.1 Equipment Required
- Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 150 SCFH at 20 - 100 PSI.
- Fittings and tubing for purge air or inert gas supply (0.25” NPT Male to connect to the inlet of the purge system).
- Local air pressure shutoff valve.

4.2.2 Procedure
1. Mount the enclosure in the location in which it will be installed. This must be near the source of air or inert gas to be used for the purge system.
2. Install the pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P002).
3. Bleed the purge air or inert gas line to insure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
4. Connect the line to the inlet of the regulator on the Purge Unit.
5. Apply air or inert gas to the enclosure. The enclosure may “swell” slightly as the internal pressure increases. This is normal and is not a cause for concern. DAISY enclosures are designed to release excess pressure. DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.

4.3 Purge Air Line Connection Instructions for Division 1 X-Purge Systems
This section applies to the following models: 2563, 2566, 2568, 2663, 2666, 2668, 4563, 4566, 4568, 4663, 4666 and 4668.

After the unit has been mounted in its final location in the hazardous area, it must be permanently connected to a purge air or inert gas line and checked for leaks and proper operation of the purge/pressurization system. Only when its pressure integrity has been established should electrical signals and power be brought “live” to the unit.

Please note to always follow all NEC, NFPA, and local codes when installing conduit and PAC-seals in hazardous areas. All knowledgeable personnel, familiar with national and local codes, must supervise hazardous area equipment installations.

4.3.1 Equipment Required
- Clean, dry purge air or inert gas supply equipped with local water/oil separator or filter capable of supplying 40 to 300 SCFH at 30 to 60 PSI.
- Fittings and tubing for purge air or inert gas supply (0.25” NPT Male to connect to the inlet of the purge system).
- Local air pressure shutoff valve.

4.3.2 Procedure
1. Mount the enclosure in the location in which it will be installed. This must be near the source of air or inert gas to be used for the purge system.
2. Install the pressure regulator, water/oil separator or filter, shutoff valve, pressure relief valve, and pressure gauge in the purge air or inert gas line (see drawing P007 at the end of this manual).
3. Bleed the purge air or inert gas line to insure that dirt, moisture, and other contaminants are cleared from the line prior to connecting the line to the unit.
4. Connect the purge gas line to the inlet of the regulator on the Purge Unit.
5. The PAC-Seals bringing the power and signals to the explosion-proof I/O casting should already be installed. Connect the signal lines to the interlock system (see drawings E018, E019, E022, E025, and E016).

6. **Ensure that the power to the AC supply lines is disconnected.** Connect the power line(s) to the X-purge system (see drawing E017).

7. If the area can be made safe, you may want to test your connections before closing the explosion-proof I/O casting. **If you test the system in place, it is VITAL that you ENSURE THAT THE AREA IS SAFE during the test and FOLLOW ALL APPLICABLE SAFETY PROCEDURES for “hot work” in a hazardous area.** You can test connections without purging by holding down the "Bypass Purge" button (see drawing E020) while applying power; you must release the button within 30 seconds of power application to prevent a diagnostic error. When the button is released, power and signals are immediately “live” to the system; you can test operation to make sure that the connections have been made correctly. **Disconnect power IMMEDIATELY upon completion of this test to ensure that the unit is not erroneously operated in bypass mode.**

8. When the signal and power connections are complete, replace the cover on the I/O casting and secure with the supplied 14 hex-head bolts. Torque these bolts to 7.5 ft. lbs.
5 Start-Up Operation

5.1 Division 1 Y-Purge Start-Up Operation
1. When the air, signal, and power connections are complete, replace and close all access doors and covers.
2. Turn the Control valve to PURGE. Look at the Flow Meter on the front panel to verify that the flow rate is 150 SCFH. If not, readjust the Purge Regulator to set the flow to 150 SCFH.
3. If the Flow Meter does not read 150 SCFH, inspect the enclosure for blockage in the purge gas lines and take appropriate action to clear the blockage. If blockages are not obvious, verify that the purge air or inert gas is clean and dry.
4. Slowly turn the Control Valve to OPERATE. If the Control Valve is turned rapidly, the ball in the Flow Meter may start oscillating. Look at the pressure gauge on the front panel to be certain that the internal pressure is 1.0” of Water Column. If not, reset the adjustment on the exhaust assembly on the so that the pressure gauge reads 1.0” of Water Column.
5. Slowly turn the Control Valve to PURGE. Make sure that the Flow Meter reads 150 SCFH. If not, readjust the regulator for 150 SCFH.
6. After a 10-minute purge cycle, slowly turn the control valve to OPERATE.
7. Apply power to the enclosure. The Pressure Good LED should be illuminated green. If not, check the internal pressure: it should be between 0.4” and 10.0” of Water Column. The pressure good led must be illuminated green at this time. If it is not, please consult the factory.
8. If the Pressure Good LED is not illuminated green, the internal pressure is below 0.4” Water Column and the Alarm is on. Turn power off to the enclosure and repeat steps 2 through 6.

5.2 Division 1 X-Purge Start-Up Operation
1. When the air, signal, and power connections are complete, replace and close all access doors and covers.
2. Apply AC power. The Purge Status LED will illuminate red. Power is now applied though the Intrinsic Safety Barriers to the purge/pressurization control circuits only.
3. Apply purge gas to the system by opening the shutoff valve (if installed). If the pre-installation test has been performed, the air-in pressure regulator will be preset – you should begin the start-up process at the pressure noted during testing. Otherwise, adjust the pressure regulator on the air-in box (see drawing P008) so that the pressure gauge indicates 35 PSI.
4. Once the pressure inside the unit reaches 1.0” Water Column and at least 40 SCFH, the Purge Status LED will illuminate yellow, indicating that it is purging. If the purge status indicator does not turn yellow, inspect the unit for leakage. The gasketed panels can be checked with a soap solution. If leaks are not obvious, verify that the purge air of inert gas is clean and dry and that the pressure at the inlet is 35 PSI (or, if a pre-installation test was completed, at the pressure noted during that test).
5. DO NOT ATTEMPT TO OPEN THE ENCLOSURE WHILE IT IS PRESSURIZED.
6. If the pre-installation test was completed and the unit appears to be functioning correctly within the same parameters as during the test, you may skip the remaining steps of this procedure.
7. Note the reading on the Pressure Gauge while slowly turning the Air Input Regulator until the Purge Status LED flashes red with an error code of 2 – 2 (over pressure) or 3 –2 (over flow).
8. Remove AC power from the enclosure for a minimum of 30 seconds. Decrease the pressure reading on the pressure gauge by 5 PSI. This change may vary slightly on some unit; if the unit fails during purging with an over flow error (3-2 blink code), decrease the inlet pressure by another 2 PSI.

9. Re-apply AC power. The Purge Status LED will illuminate yellow. The purge time is set for a minimum of 8 minutes. The time will vary according to the flow rate of the air into the enclosure.

10. After the purge is complete, the Purge Status indicator will illuminate green. AC power is now applied to the internal electronics and the signal relays are closed.

11. If the purge status light blinks red, one of several possible errors has been detected. Please refer to Table 2 on page 21 for an explanation of the possible error codes.
6 Operation Notes

6.1 Division 1 Y-Purge

When using a Y-purge system, it is the operator’s responsibility to disconnect power and signal paths in the event of a purge failure if the pressure in the unit falls below a preset level.

DAISY units are equipped with both an indicator light (the “Pressure Good” LED shown on drawing P008) and an internal pressure meter (shown on the same drawing). If the “Pressure Good” indicator is extinguished, or if the internal pressure meter is in the red zone below 1” of water column, the operator should immediately disconnect power and signal connections to the unit using switches in a safe area.

DAISY’s Y-purge systems are also equipped with alarm contacts that switch state simultaneously with the “Pressure Good” indicator. These can be connected to an alarm system or supervisory control system to provide further indications to the operator and/or the supervisory system. The operation of the alarm contacts and the “Pressure Good” indicator light is detailed in the flowchart shown in Figure 1 on page 18 and in Table 1 on page 19.

![Figure 1 – Y-Purge Alarm Logic](image-url)
### Table 1 Y-Purge Alarm and Indicator States

<table>
<thead>
<tr>
<th>Power is</th>
<th>Pressure is</th>
<th>NC1 &amp; NC2 are</th>
<th>NO1 &amp; NO2 are</th>
<th>Pressure Good LED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>&lt; 0.4” W.C.</td>
<td>Closed</td>
<td>Open</td>
<td>Off</td>
</tr>
<tr>
<td>Off</td>
<td>&gt; 0.4” W.C.</td>
<td>Closed</td>
<td>Open</td>
<td>Off</td>
</tr>
<tr>
<td>On</td>
<td>&lt; 0.4” W.C.</td>
<td>Open</td>
<td>Closed</td>
<td>Off</td>
</tr>
<tr>
<td>On</td>
<td>&gt; 0.4” W.C.</td>
<td>Closed</td>
<td>Open</td>
<td>On</td>
</tr>
</tbody>
</table>

**6.2 Division 1 Y-Purge**

X-purge systems are fully automatic. The system safely disconnects power and signal paths in the event of a purge failure.

The DAISY purge control also performs automatic self-diagnostics and can report other errors. Table 2 details both the normal conditions and the errors (fatal and non-fatal) that are reported by the purge status LED (see drawing P008, indicated by note 9).

*Please note* that blink codes can be read in forward or reverse; that is, code 2-3 is the same as code 3-2. A “0” in the code column indicates steady (non-blinking) light. The status column indicates the nature of the information being given: “informative” is simply a status indication and no action needs to be taken, “non-fatal” is a condition that can be corrected and operation will then proceed normally, and “fatal” are errors that require that the purge system be shut down before correcting the problem and restarting the purge cycle.

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
<th>Meaning</th>
<th>Status</th>
<th>Recommended Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>0</td>
<td>Operate, purge complete</td>
<td>Informative</td>
<td>n/a</td>
</tr>
<tr>
<td>Yellow</td>
<td>0</td>
<td>Purge in progress</td>
<td>Informative</td>
<td>n/a</td>
</tr>
<tr>
<td>Yellow</td>
<td>1-1</td>
<td>Minor over flow</td>
<td>Non-fatal</td>
<td>Turn the air in regulator down a few PSI.</td>
</tr>
<tr>
<td>Red</td>
<td>0</td>
<td>Waiting to begin purge</td>
<td>Non-fatal</td>
<td>Turn the purge gas supply on. If it is on, the enclosure may not be developing enough internal pressure – make sure all doors and access panels are closed. Also, the air inlet pressure may not be high enough – try turning the regulator up.</td>
</tr>
<tr>
<td>Red</td>
<td>1-1</td>
<td>System Error</td>
<td>Fatal</td>
<td>Contact DAISY customer service (see section 7)</td>
</tr>
<tr>
<td>Color</td>
<td>Code</td>
<td>Description</td>
<td>Severity</td>
<td>Description</td>
</tr>
<tr>
<td>-------</td>
<td>------</td>
<td>-------------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Red</td>
<td>2-1</td>
<td>Under pressure</td>
<td>Fatal</td>
<td>Loss of pressure is usually due to a door being opened or failure of the purge gas supply. Check both.</td>
</tr>
<tr>
<td>Red</td>
<td>2-2</td>
<td>Over pressure</td>
<td>Fatal</td>
<td>Turn the air inlet regulator down at least 5 PSI. Repeat until purge will complete without error. If problems continue, or occur during operation, contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).</td>
</tr>
<tr>
<td>Red</td>
<td>3-2</td>
<td>Major over flow</td>
<td>Fatal</td>
<td>Turn the air inlet regulator down at least 5 PSI.</td>
</tr>
<tr>
<td>Red</td>
<td>3-3</td>
<td>Water detected</td>
<td>Fatal</td>
<td>This should only occur if a water sensor option is installed. If it is installed, the unit must be opened and dried completely out. Ensure that no water remains in the unit and that there is no damage to the internal components resulting from the water. <strong>In case of serious water incursion, DO NOT ATTEMPT TO REAPPLY POWER TO THE EQUIPMENT; the equipment should be returned to DAISY for evaluation.</strong></td>
</tr>
<tr>
<td>Red</td>
<td>4-1</td>
<td>Faulty pressure sensor</td>
<td>Fatal</td>
<td>A purge system component has failed. Please contact DAISY customer service (see section 7 Customer Service on page 22 Error! Bookmark not defined.in this manual).</td>
</tr>
<tr>
<td>Red</td>
<td>4-2</td>
<td>Faulty flow sensor</td>
<td>Fatal</td>
<td>A purge system component has failed. Please contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).</td>
</tr>
<tr>
<td>Red</td>
<td>4-3</td>
<td>Short purge switch is stuck</td>
<td>Fatal</td>
<td>The “Short Purge” switch on the DIP switch mounting board (see drawing E020) is either shorted or stuck, or the operator has held it down too long while beginning a test. Ensure that there is nothing holding the switch closed or shorting the circuit. If you continue to experience problems, contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).</td>
</tr>
</tbody>
</table>
The “Bypass Purge” switch on the DIP switch mounting board (see drawing E020) is either shorted or stuck, or the operator has held it down too long while beginning a test. Ensure that there is nothing holding the switch closed or shorting the circuit. If you continue to experience problems, consult DAISY contact DAISY customer service (see section 7 Customer Service on page 22 in this manual).

<table>
<thead>
<tr>
<th>Color</th>
<th>Code</th>
<th>Description</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>4-4</td>
<td>Bypass purge switch is stuck</td>
<td>Fatal</td>
</tr>
</tbody>
</table>

Table 2 – X-Purge Status Light Key
7 **Customer Service**

Chapter 8 has a complete trouble-shooting guide to help you quickly identify any problems that may occur.

Should you have any further inquiries or comments, please contact DAISY's customer service department.

Business Phone (1) 717-932-9999 x 222
Fax (1) 717-932-8000
Email support@Daisyinc.net

Equipment returned to DAISY for service must be accompanied by a valid return merchandise authorization (RMA) number. Items or products shipped to DAISY without a valid RMA number will be refused. An RMA will be generated upon receipt of Company Name, Address, Contact, Product Model and Serial Numbers.

**Typical Model/Serial Number Tag**

![Typical Model/Serial Number Tag](image)

Daisy Data Displays Inc. prides itself on offering best in class support for your products. Our technical support team can help you with installation, configuration, troubleshooting, and other support issues for all DAISY® products.
## 8 Trouble-Shooting Guide

### 8.1 Division 1 Y-Purge Trouble Shooting

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SUGGESTED SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>The flow cannot be adjusted up to 150 SCFH during purge</td>
<td>Improper flow meter reading</td>
<td>For correct operation, the purge unit must be mounted vertically so that the flow meter is vertically plumb</td>
</tr>
<tr>
<td></td>
<td>Improper regulator adjustment</td>
<td>Adjust the air inlet regulator to increase air supply</td>
</tr>
<tr>
<td></td>
<td>The purge control is not set to purge</td>
<td>Check the position of the control valve to ensure that it is set to “Purge”</td>
</tr>
<tr>
<td></td>
<td>Insufficient air supply</td>
<td>Check your purge gas supply to ensure that it can supply 150 SCFH. If you cannot achieve 150 SCFH, then purge times must be recalculated. Contact DAISY customer service for assistance.</td>
</tr>
<tr>
<td></td>
<td>Restrictions in the air supply line</td>
<td>Check your air supply line for blockages and kinks</td>
</tr>
<tr>
<td></td>
<td>Contamination in the air supply</td>
<td>Ensure that the purge gas supply is clean, dry, and free of oil – a water/oil separator should be installed near the connection to the purge control</td>
</tr>
<tr>
<td></td>
<td>Restrictions in the purge line from the purge control into the enclosure</td>
<td>Ensure that the purge line from the purge control into the enclosure is not kinked, has no internal obstructions, and is unrestricted at its open end (at least 0.5” from any object in the path of the air flow)</td>
</tr>
<tr>
<td>During operation (control valve set to “Operate”), the internal pressure does not reach/will not maintain 1” of water column</td>
<td>The enclosure is not sealed and is leaking</td>
<td>Ensure that all access doors are closed and latched. Ensure that all access panels are closed and sealed. Make sure no unsealed holes or openings are present in the enclosure.</td>
</tr>
<tr>
<td></td>
<td>Insufficient air flow</td>
<td>Adjust the regulator on the purge control to increase the air flow</td>
</tr>
<tr>
<td></td>
<td>PAC-Seals are not poured</td>
<td>PAC-Seals must be poured in conduits entering the enclosure to prevent air from escaping via the conduit entry. Ensure that this has been done.</td>
</tr>
</tbody>
</table>
| | Exhaust control valve | Adjust the purge control exhaust valve for a
**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SUGGESTED SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>When power is applied, the purge status indicator light does not come on</td>
<td>Power is not connected to the unit</td>
<td>Connect AC power to the power connection on the purge system. Ensure that the power switch is on. Ensure that AC power is on.</td>
</tr>
<tr>
<td></td>
<td>Improper line voltage selection</td>
<td>Ensure that the 120/240 VAC switch on the purge control is set appropriately for your power source.</td>
</tr>
<tr>
<td>After power is applied, the purge status indicator stays solid red; it does not switch to yellow or blink</td>
<td>No air supply to unit</td>
<td>Ensure that a purge gas line is connected to the unit and that the supply line is “on.” The pressure gauge on the air-in box should indicate a higher pressure than 20 PSI.</td>
</tr>
<tr>
<td></td>
<td>Restrictions in air line</td>
<td>Ensure that supply line and inlet connect have no restrictions and that the supply line is not kinked.</td>
</tr>
<tr>
<td></td>
<td>Restrictions in main purge line inside enclosure</td>
<td>Ensure that the main purge line (terminating in a brass tee fitting) is not kinked or disconnected.</td>
</tr>
<tr>
<td></td>
<td>Leaks in the enclosure</td>
<td>Ensure that all access doors are closed and latched. Ensure that all access panels are sealed tightly.</td>
</tr>
</tbody>
</table>

8.2 Division 1 X-Purge Trouble Shooting

<table>
<thead>
<tr>
<th>PROBLEM</th>
<th>POSSIBLE CAUSE</th>
<th>SUGGESTED SOLUTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>During operation (control valve set to “ Operate”), the internal pressure does not reach/will not maintain 1” of water column</td>
<td>Restrictions in the air connections</td>
<td>Ensure that the air connection at the regulator is not kinked, has no obstructions, and is firmly connected.</td>
</tr>
<tr>
<td>The “Pressure Good” indicator does not light when the unit is powered</td>
<td>Incorrect power-up sequence</td>
<td>Power should only be applied to the enclosure after the internal pressure has reached 1” of water column or higher and when the full purge time has elapsed.</td>
</tr>
<tr>
<td></td>
<td>Insufficient internal pressure</td>
<td>The pressure within the enclosure must be within the operating (or “safe”) range. If you are having trouble maintaining a suitable pressure, see the previous section of this trouble-shooting guide.</td>
</tr>
<tr>
<td></td>
<td>Alarm board is not receiving power</td>
<td>Ensure that AC power has been connected to the unit, and that the power is turned on.</td>
</tr>
<tr>
<td></td>
<td>Voltage is set incorrectly</td>
<td>Ensure that the 120/240 VAC switch on the alarm board is set appropriately for your power source.</td>
</tr>
<tr>
<td>Condition</td>
<td>Cause</td>
<td>Solution</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>--------------------------------</td>
<td>---------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>The purge status indicator is yellow, but the enclosure takes an excessively long time to complete the purge (when the status indicator turns green)</td>
<td>Low purge gas supply pressure</td>
<td>Increase purge gas inlet pressure at the air-in regulator or on the main supply line</td>
</tr>
<tr>
<td>Purge status indicator flashes yellow and purge takes an excessively long time to complete.</td>
<td>Low purge gas supply pressure</td>
<td>Increase purge gas inlet pressure at the air-in regulator or on the main supply line</td>
</tr>
<tr>
<td>Purge or operation stops and purge status indicator flashes red code</td>
<td>Fatal purge error</td>
<td>See Table 2 on page 19</td>
</tr>
</tbody>
</table>
9 Specifications

Materials
All materials comply with NEMA 4X standards
- Enclosure and Hardware: Stainless Steel
- Explosion-proof I/O Casting: Cast Aluminum (Division 1 X-purge)
- Explosion-proof I/O Casting Bolts: Hardened Steel (Division 1 X-purge)

Mechanical
See drawings for dimensions

Environmental
- Operating Temperature: -17.78° – +29.4° C (0° – +85° F)
- Storage Temperature: -17.78° – +60° C (0° – +140° F)
- Relative Humidity: 5% - 95% RH Non-condensing

Electrical
- Voltage: 120/240 VAC
- Frequency: 60/50 Hz
- Power (Monitors): 60W Maximum
- Power (PCs): 360W Maximum

Air Requirements
- NEMA 12 and NEMA 4X: No air required
- Division 2 Non-incentive: No air required
- Division 1 Y-Purge: 150 SCFH Minimum
- Division 1 X-Purge: 40 SCFH Minimum
  300 SCFH Optimum
- 20 - 60 PSI Recommended at Inlet

Display (based on 60 Hz refresh frequency)
- Resolution Maximum: 1024 x 768 (15”)
  1280 x 1024 (19”)
  1680 x 1050 (22”)
- Dot Pitch: 0.297mm (15”)
  0.294mm (19”)
  0.282 x 0.282mm (22”)
- Viewable Size: 232.664(H) x 308.864mm (V) (15”)
  376.32(H) x 301.056mm (V) (19”)
  473.76(H) x 296.1mm (V) (22”)
- Viewing Angle: *NOTE

Typical Brightness
- 15” 350-600 nits
- 19” 300 nits
- 22” 300 nits

Color Depth: 24 bits

*NOTE
Due to frequent technology changes please call for specific model specifications.
# 10 Revision History

<table>
<thead>
<tr>
<th>REVISION</th>
<th>CHANGE DESCRIPTION</th>
<th>DATE</th>
<th>AUTHOR</th>
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<tr>
<td>3.0</td>
<td>Preliminary</td>
<td>05/01/2015</td>
<td>MR</td>
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<th>Description</th>
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<td>NEMA 4X and Div. 2 non-incendive monitor and PCs conduit and cable entry drawings</td>
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<td>NEMA 4X and Div. 2 non-incendive monitor electrical connection drawings</td>
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<td>E101</td>
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<td>E102</td>
<td>2526KP/2556KP</td>
<td>NEMA 4X and Div. 2 non-incendive keypad 19” monitor electrical block diagram</td>
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<td>NEMA 4X and Div. 2 non-incendive PC electrical connection drawings</td>
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<td>M008</td>
<td>2510KP/4510KP Div. 1 Y-Purge monitors and PCs: Mechanical and mounting drawings</td>
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<td>P004</td>
<td>2510KP/2610/4310/4510KP Div. 1 Y-Purge front panel diagram and locator drawing</td>
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<td>P005</td>
<td>2510KP/2610/4310/4510KP Div. 1 Y-Purge back panel diagram and locator drawing</td>
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<td>2510KP/2610/4310/4510KP Div. 1 Y-Purge over pressure exhaust diagram</td>
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<tr>
<td>E009</td>
<td>2510KP/2610/4310/4510KP Div. 1 Y-Purge alarm/logic board diagram and locator drawing</td>
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<td>E112</td>
<td>2513KP Div. 1 Y-Purge keypad 15” monitor electrical block diagram</td>
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<tr>
<td>E113</td>
<td>2613 Div. 1 Y-Purge integrated 15” monitor electrical block diagram</td>
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<td>2516KP Div. 1 Y-Purge keypad 19” monitor electrical block diagram</td>
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<td>2616 Div. 1 Y-Purge integrated 19” monitor electrical block diagram</td>
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**NOTES:**

1. THE 120 VAC POWER INPUT CONNECTION IS LOCATED ON THE INSIDE REAR WALL IN THE UPPER LEFT CORNER FOR ALL MODELS SHOWN. USE THE CONNECTION PIN-OUT OF THE 6 POSITION TERMINAL STRIP.

2. THE KVM REMOTE RECEIVER IS LOCATED ON THE CENTER OF THE INSIDE REAR WALL FOR ALL MODELS SHOWN. THE KVM RECEIVER INPUT DATA CABLE IS A RJ45 CAT5 CABLE. THIS CABLE CAN BE UP TO 400 FEET LONG. USE THE PIN-OUT FROM THE SUPPLIED KVM MANUAL FOR THIS CABLE. THE KVM RECEIVER MAY BE DAMAGED IF THE PIN-OUT IS NOT FOLLOWED.

3. MODELS WITH THE "NO KVM INSTALLED" OPTION REQUIRE A CUSTOMER SUPPLIED HD15 PLUG SVGA VIDEO CABLE CONNECTED TO THE UNIT. THE HD15 VIDEO INPUT CONNECTION IS LOCATED ON THE REAR OF THE FRONT DOOR FOR ALL MODELS SHOWN.

4. SEE TABLE 1 FOR THE DAISY DATA KVM CATS INPUT CABLE MODEL NUMBER & LENGTH.

5. FOR CABLE & CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWING "P001".

---

**DIMENSIONS ARE IN INCHES**

**CONNECTIONS FOR REMOTE NON-PURGED ENCLOSURES**
TABLE 1

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NOTES:

1. THE 120 VAC POWER INPUT CONNECTION IS LOCATED ON THE INSIDE REAR WALL IN THE UPPER LEFT CORNER FOR ALL MODELS SHOWN. USE THE CONNECTION PIN-OUT OF THE 6 POSITION TERMINAL STRIP.

2. THE SIGNAL BOARD COMPUTER IS LOCATED ON THE CENTER OF THE INSIDE REAR WALL FOR ALL MODELS SHOWN. THE 10/100 BASET NETWORK IS STANDARD FOR ALL PCS. THE RJ45 - RJ45 CATS Cable can be up to 328 FEET LONG.

3. SEE TABLE 1 FOR THE DAISY DATA CATS INPUT CABLE MODEL NUMBER & LENGTH.

4. FOR CABLE & CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWING "FOOT".

MODEL 4353: NEMA 4X 15" FLAT PANEL INTEGRATED PC
MODEL 4356: NEMA 4X 19" FLAT PANEL INTEGRATED PC
MODEL 4358: NEMA 4X 22" FLAT PANEL INTEGRATED PC
MODEL 4323: DIVISION 2 NON-INCIPODIE 15" FLAT PANEL INTEGRATED PC
MODEL 4326: DIVISION 2 NON-INCIPODIE 19" FLAT PANEL INTEGRATED PC
MODEL 4328: DIVISION 2 NON-INCIPODIE 22" FLAT PANEL INTEGRATED PC

MODEL 4553KP: NEMA 4X 15" FLAT PANEL PC w/ KEYPAD
MODEL 4556KP: NEMA 4X 19" FLAT PANEL PC w/ KEYPAD
MODEL 4558KP: NEMA 4X 22" FLAT PANEL PC w/ KEYPAD
MODEL 4523KP: DIVISION 2 NON-INCIPODIE NON-INTEGRATED 15" FLAT PANEL PC w/ KEYPAD
MODEL 4526KP: DIVISION 2 NON-INCIPODIE NON-INTEGRATED 19" FLAT PANEL PC w/ KEYPAD
MODEL 4528KP: DIVISION 2 NON-INCIPODIE NON-INTEGRATED 22" FLAT PANEL PC w/ KEYPAD

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NOTES:

1. THE 120 VAC POWER INPUT CONNECTION IS LOCATED ON THE INSIDE REAR WALL IN THE UPPER LEFT CORNER FOR ALL MODELS SHOWN. USE THE CONNECTION PIN-OUT OF THE 6 POSITION TERMINAL STRIP.

2. THE KVM REMOTE RECEIVER IS LOCATED ON THE CENTER OF THE INSIDE REAR WALL FOR ALL MODELS SHOWN. THE KVM RECEIVER INPUT DATA CABLE IS A RAG CATS CABLE. THIS CABLE CAN BE UP TO 40 FEET LONG. USE THE SOFTWARE TO THE SUPPLIED KVM MANUAL FOR THE CABLE.

3. MODELS WITH THE "NO KVM INSTALLED" OPTION REQUIRE A CUSTOMER SUPPLIED HOSE PLUS DATA WIRE CABLE CONNECTED TO THE UNIT. THE HOSE INPUT CONNECTION IS LOCATED ON THE REAR OF THE FRONT DOOR FOR ALL MODELS SHOWN.

4. SEE TABLE 1 FOR THE DAISY DATA KVM CATS INPUT CABLE MODEL NUMBER & LENGTH.

5. THE Y-PURGE ALARM BOARD (033-000002-03) IS LOCATED ON THE RIGHT SIDE FOR ALL MODELS SHOWN. CONTACTS $2 \\& $3 CAN BE WIRING NORMALLY OPEN OR NORMAL CLOSED. A 54 CONDUCTOR CABLE IS REQUIRED.

6. FOR CABLE \\& CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWING "POE".

7. THE AIR INPUT FITTING IS A 1/4" NPT FEMALE. THE AIR SOURCE MUST BE CLEAN DRY INSTRUMENT GRADE AIR CAPABLE OF SUPPLYING 35 TO 150 CFH FROM 99 TO 100 PSI.
NOTES:
1. THE 120 VAC POWER INPUT CONNECTION IS LOCATED ON THE INSIDE REAR WALL IN THE UPPER LEFT CORNER FOR ALL MODELS SHOWN. USE THE CONNECTION PRE-CUT OF THE 5 POSITION TERMINAL STRIP.
2. THE SIGNAL BOARD COMPUTER IS LOCATED ON THE CENTER OF THE INSIDE REAR WALL FOR ALL MODELS SHOWN. THE 10/100 BASE NETWORK IS STANDARD FOR ALL PCs. THE SLUG - SLUG CATS CABLE CAN BE UP TO 300 FEET LONG.
3. SEE TABLE 1 FOR THE DAISY DATA CATS INPUT CABLE MODEL, NUMBER & LENGTH.
4. THE Y-PURGE ALARM BOARD (1033-000002-03) IS LOCATED ON THE RIGHT SIDE FOR ALL MODELS SHOWN. RELAYS 1 & 2 CAN BE WIRING IN NORMAL OPEN OR NORMAL CLOSED. A SIX CONDUCTOR CABLE IS REQUIRED.
5. FOR CABLE & CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWINGS "TPOZL".
6. THE AIR INPUT FITTING IS A 1/4" NPT FEMALE. THE AIR SOURCE MUST BE CLEAN DRY INSTRUMENT GRADE AIR CAPABLE OF SUPPLYING 35 TO 150 SCFH AT 30 - 100 PSI.

TABLE 1

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Daisy Data, Inc.

CONNECTIONS FOR LCD-PC
Y-PURGED ENCLOSURES

E013

We Thrive in the Hardest Environments Voice: (717) 912-0990 FAX: (717) 912-8000 or Visit Us At www.daisydata.com SHEET 1 OF 1
AC POWER INPUT

**OPTION #1**

- **AC POWER INPUT** to BOTH PURGE CONTROL INTERNAL EQUIPMENT

**OPTION #2**

- **AC POWER INPUT** to INTERNAL EQUIPMENT ONLY
- **AC POWER INPUT** to PURGE CONTROL from U.P.S.

**NOTES:**

1. **AC POWER INPUT:**
   - The connection point for the customer supplied 115/230 VAC. This input line will supply the internal equipment with AC power when the enclosure is safely purged. It can also supply voltage to run the purge system if S1 is closed (to outer edge of board). See option #1.

2. **BARRIER GROUNDS:**
   - The connection point for the intrinsic safety barriers mounting rail ground. Two of the four connections will be made by Daisy Data. The other two must be connected to within 1 ohm of true earth ground.

3. **ALARM RELAY:**
   - The connection point for an external alarm. The current rating for this is 10 amps. The "NC" contact is open when the purge cycle is complete or in bypass mode. The "NO" contact is closed when the purge cycle is complete or in bypass mode.

4. **AUXILIARY AC POWER INPUT:**
   - The connection point for the customer supplied 115/230 VAC. This input will provide voltage to run the purge system when S1 is open (to the inner edge of the board). This may be connected to an uninterruptable power supply in a safe area. This will ensure the purge is not lost during short power failures. See option #2.
   
5. **TO INSERT WIRES INTO THE CONNECTORS SUPPLIED FOR MAIN AC POWER, BARRIER GROUNDS, ALARM RELAY & AUXILIARY AC POWER:** Strip the wire insulation off 1/4" & Tin. Unscrew the terminal until the wire will fit in & screw till the wire is secure.

6. **S1:**
   - S1 should be open (to the inner edge of the board) when using the auxiliary power connection. S1 should be closed (to the outer edge of the board) when using the main AC power connection for both the purge control & internal AC power.

7. **S2:**
   - This is the input voltage selector switch for both the main & auxiliary inputs. It is for 110 or 230 VAC.

8. **F1:**
   - This is a 0.5A @ 115V or a 0.25A @ 230V fuse. F1 controls the I.S. power to the purge control board.

9. **F2:**
   - This is a 10A @ 115V or a 5A @ 230V fuse. F2 controls the AC power to the internal equipment.
NOTES:

1. JA: JA IS CONNECTED TO J13 ONE TO ONE. SEE THE SSB-SIB CONNECTION TABLE FOR A MORE DETAILED PIN-OUT. J13 IS CONNECTED TO JA ON THE INTERNAL SIGNAL INTERFACE BOARD THOUGH THE PAC-SEAL.

2. JB: JB IS CONNECTED TO J12 ONE TO ONE. SEE THE SSB-SIB CONNECTION TABLE FOR A MORE DETAILED PIN-OUT. J12 IS CONNECTED TO JB ON THE INTERNAL SIGNAL INTERFACE BOARD THOUGH THE PAC-SEAL.

3. JC: JC IS CONNECTED TO J13 ONE TO ONE. SEE THE SSB-SIB CONNECTION TABLE FOR A MORE DETAILED PIN-OUT. J13 IS CONNECTED TO JC ON THE INTERNAL SIGNAL INTERFACE BOARD THOUGH THE PAC-SEAL.

4. TO INSERT WIRES INTO THE CONNECTORS SUPPLIED AT JA, JB & JC, STRIP THE WIRE INSULATION OFF 1/4" & TIN. UNSCREW THE TERMINAL UNTIL THE WIRE WILL FIT IN & SCREW TILL THE WIRE IS SECURE.

5. J15 & J16: SHORT WHEN NET3 (J5) IS USED FOR ARCNET.

6. J1 & J2: SHORT BOTH WHEN NET1 (J6) & NET2 (J4) ARE USED FOR THINNET.

7. FOR ARCNET NETWORK LOOPBACK. CONSULT FACTORY FOR MORE INFORMATION.

Daisy Data, Inc.
2850 Lewisberry Road, York Haven, PA 17370

ITEM LOCATION DIAGRAM DRAWING

DIMENSIONS ARE IN INCHES

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NOTES:

1. JA IS CONNECTED TO J13 ONE TO ONE. SEE THE SSB-SIB CONNECTION TABLE FOR A MORE DETAILED PIN-OUT. J13 IS CONNECTED TO JA ON THE SIGNAL SWITCHING BOARD THOUGH THE PAC-SEAL.

2. JB IS CONNECTED TO J12 ONE TO ONE. SEE THE SSB-SIB CONNECTION TABLE FOR A MORE DETAILED PIN-OUT. J12 IS CONNECTED TO JB ON THE SIGNAL SWITCHING BOARD THOUGH THE PAC-SEAL.

3. JC IS CONNECTED TO J13 ONE TO ONE. SEE THE SSB-SIB CONNECTION TABLE FOR A MORE DETAILED PIN-OUT. J3 IS CONNECTED TO JC ON THE SIGNAL SWITCHING BOARD THOUGH THE PAC-SEAL.

4. TO INSERT WIRES INTO THE CONNECTORS SUPPLIED AT JA, JB & JC, STRIP THE WIRE INSULATION OFF 1/4" & TIN. UNSCREW THE TERMINAL UNTIL THE WIRE WILL FIT IN & SCREW TILL THE WIRE IS SECURE.
NOTES:

1. **BYPASS PURGE:**
   - This test must be done in a safe environment! By-pass purge is for test only!
   - The purge control system is completely bypassed & the isolation relays close immediately, applying power & signals to any connected internal electronics.
   - The purge status led on the front panel will be illuminated flashing green. No purge air is required. Remove main AC power. Press & hold the bypass purge switch & apply main power in to the XPI Board (see notes 1 & 4 on drawing "E017"). Then release the switch within 30 seconds. Now the unit is in bypass purge.
   - The unit's internal environment will not be safe unless a normal purge cycle is done.

2. **SHORT PURGE SWITCH:**
   - This test must be done in a safe environment! Short purge is for test only!
   - The purge control system will set the purge time to 30 seconds regardless of the setting on the enclosure size select dip switches. The purge will then continue as normal. The purge status led will be illuminated green. Purge air is required. Remove main AC power in. Press & hold the short purge switch & apply main power in to the XPI Board (see notes 1 & 4 on drawing "E017"). Then release the switch within 30 second. Close the switch cover & the enclosure door. Apply air to the purge system. The unit is now operating normally.
   - The unit's internal environment will not be safe unless a normal purge cycle is done.

3. **ENCLOSURE SIZE DIP SWITCHES:**
   - The dip switches control the timing of the normal purge cycle. For both the 15" & 18" display models the purge time will be 8 minutes. The follow are the correct settings of the switches.
   - 1: OFF
   - 2: OFF
   - 3: ON
   - 4: OFF
   - 5: ON
   - 6: ON
   - 7: ON
   - 8: ON
NOTES:

1. **EPROM:**
   This is the factory supplied EPROM with the software for the purge system.

2. **Jumper Settings:**
   All jumpers are set at the factory. Do not change!

3. **Flow & Pressure Adjustments:**
   All potentiometers are set at the factory. Do not change!

4. **Flow Sensor:**
   This is the sensor that measures the air flow into the enclosure. The red hose is connected to port "A".

5. **Pressure Sensor:**
   This is the sensor that measures the air pressure inside of the enclosure. The blue hose is connected to port "A".

**DIMENSIONS ARE IN INCHES**

**Daisy Data, Inc.**
2850 Lewisberry Road, York Haven, PA 17370

**ITEM LOCATION DIAGRAM DRAWING**

**PURGE CONTROL BOARD ITEM LOCATION**

**DRAWING NUMBER**
E021

**REV.**
-

We Thrive in the Hardest Environments  Voice: (717) 932-9999  FAX: (717) 932-8000  or Visit Us At www.daisydata.com  SHEET 1 OF 1
1. All input connections are located on two PCBs in the explosion-proof aluminum box. The 120 VAC power input connection is on the XPI board (0051-000000). The alarm relay connection is also on the XPI board. A three-conductor cable is required.

2. The data signal inputs are on the XPI board (0083-000000). The CAT5 data cable can plug into cable 1100-001347-01, which is supplied with the unit.

3. The XPI remote receiver is located on the center of the inside rear wall for all models shown. The XPI receiver input data cable is a 50 ft CAT5 cable. This cable can be up to 400 feet long. Use the pre-cut from the supplied XPI manual for the CAT5 cable. The XPI receiver may be damaged if the pre-cut is not followed.

4. See Table 1 for the Daisy data inputs cable model number & length.

5. For cable & conduit entry into the enclosure, refer to drawing "POP".

6. The air input fitting is a 1/4" NPT female. The air source must be clean dry instrument grade air capable of supplying 40 to 500 SCFH at 30 to 80 psi.

7. Models with the "no XPI installed" option require DC power to connect to the three BNCs (red, green, blue) on the XPI board.

Table 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Length</th>
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<tr>
<td>21779</td>
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<td>20&quot;</td>
</tr>
<tr>
<td>21924</td>
<td>10&quot;</td>
</tr>
</tbody>
</table>

For a detailed view of the wiring and connections, refer to the electrical input drawing provided. We thrive in the harshest environments. Visit us at www.daisydata.com or call (717) 932-9999 for more information.
NOTES:
1. ALL INPUT CONNECTIONS ARE LOCATED ON TWO POSTS IN THE EXPLOSION PROOF ALUMINUM BOX.
   BOX ON THE TOP OF THE UNIT. THE 120 VAC POWER INPUT CONNECTION IS ON THE XPI BOARD (0051-000000). THE ALARM RELAY CONNECTION IS ALSO ON THE XPI BOARD. A THREE CONDUCTOR CABLE IS REQUIRED.
2. THE DATA SIGNAL INPUT CONNECTIONS ARE ON THE XBI BOARD (0053-000000). THE CATS NETWORK CAN PLUG INTO CABLE NO-00534-01 WHICH IS SUPPLIED WITH THE UNIT.
3. THE SINGAL BOARD COMPUTER IS LOCATED ON THE CENTER OF THE INSIDE REAR WALL FOR ALL MODELS SHOWN. THE 10/100 BASET NETWORK IS STANDARD FOR ALL PC'S. THE RJ-45 TO RJ-45 CATS CABLE CAN BE UP TO 300 FEET LONG.
4. SEE TABLE 1 FOR THE DAILY DATA CATS INPUT CABLE MODEL NUMBER & LENGTH.
5. FOR CABLE & CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWING "POD".
6. THE AIR INPUT FITTING IS A 1/4" NPT FEMALE. THE AIR SOURCE MUST BE CLEAN DRY INSTRUMENT GRADE AIR CAPABLE OF SUPPLYING 40 TO 300 SCFM AT 30 TO 60 PSI.

TABLE 1

<table>
<thead>
<tr>
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<td>1059</td>
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<tr>
<td>1060</td>
<td>40&quot;</td>
</tr>
</tbody>
</table>

DIMENSIONS ARE IN INCHES

Daisy Data, Inc.
2850 Lewisburg Road, York Haven, PA 17370

ELECTRICAL INPUT DRAWING E025

CONNECTIONS FOR LCD-PC
X-PURGED ENCLOSURES

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SHEET 1 OF 1
NOTE:

**KEYPAD LAYOUT:**
This is the standard layout of the keypad.
For special layouts, please contact Daisy Data.
Daisy Data, Inc.
2850 Lewisberry Road, York Haven, PA 17370

Notes on the Key Functions:

1. **On Screen Display Purpose:**
   The O.S.D. buttons control the brightness, contrast and screen geometry of the image on the display.

2. **Select:**
   Selects an item from the menu.

3. **+**:
   Moves to the right item in the menu, or moves the hi-light bar right.
   The value of the selected item increases.

4. **—**:
   Moves to the left item in the menu, or moves the hi-light bar left.
   The value of the selected item decreases.

5. **Menu**
   Opens and closes the O.S.D. menu.

Dimensions are in inches.

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### WALL MOUNT CUT-OUT DIMENSIONS

**Model 2573:** NEMA 4X PANELMOUNT FLAT PANEL 15" Monitor

**Model 2576:** NEMA 4X PANELMOUNT FLAT PANEL 19" Monitor

**Model 2578:** NEMA 4X PANELMOUNT FLAT PANEL 22" Monitor

<table>
<thead>
<tr>
<th>Display Size</th>
<th>H1</th>
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<th>H3</th>
<th>W1</th>
<th>W2</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>VH</th>
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</tbody>
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**Basic Overall Dimensions**

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**Daisy Data, Inc.**

Mechanical Assembly Drawing

Dimensions are in inches

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**BASIC OVERALL DIMENSIONS**

**TABLETOP MOUNT**

**WALL MOUNT**

**DISPLAY SIZE** | **X** | **Y** | **Z**
---|---|---|---
15.0" | 21.00" | 15.44" | 7.72"
19.0" & 22.0" | 27.00" | 18.98" | 9.49"

**MOUNTING OPTIONS**

- **MODEL 2553**: NEMA 4X FLAT PANEL 15" MONITOR
- **MODEL 2556**: NEMA 4X FLAT PANEL 19" MONITOR
- **MODEL 2558**: NEMA 4X FLAT PANEL 22" MONITOR
- **MODEL 4553**: NEMA 4X 15" FLAT PANEL PC
- **MODEL 4556**: NEMA 4X 19" FLAT PANEL PC
- **MODEL 4558**: NEMA 4X 22" FLAT PANEL PC

**WALL MOUNT HOLE DIMENSIONS**

**DIMENSIONS ARE IN INCHES**

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### BASIC OVERALL DIMENSIONS

<table>
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### WALL MOUNT HOLE DIMENSIONS

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<td>18.807&quot;</td>
</tr>
</tbody>
</table>

---

**TABLETOP MOUNT**

**WALL MOUNT**

- MODEL 2553KP: NEMA 4X FLAT PANEL 15" MONITOR w/ KEYPAD
- MODEL 2556KP: NEMA 4X FLAT PANEL 19" MONITOR w/ KEYPAD
- MODEL 2558KP: NEMA 4X FLAT PANEL 22" MONITOR w/ KEYPAD
- MODEL 4553KP: NEMA 4X 15" FLAT PANEL PC w/ KEYPAD
- MODEL 4556KP: NEMA 4X 19" FLAT PANEL PC w/ KEYPAD
- MODEL 4558KP: NEMA 4X 22" FLAT PANEL PC w/ KEYPAD

---

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MODEL 2523KP: DIVISION 2 NON-INCENDIVE FLAT PANEL 15" MONITOR w/ KEYPAD
MODEL 2526KP: DIVISION 2 NON-INCENDIVE FLAT PANEL 19" MONITOR w/ KEYPAD
MODEL 2528KP: DIVISION 2 NON-INCENDIVE FLAT PANEL 22" MONITOR w/ KEYPAD
MODEL 4523KP: DIVISION 2 NON-INCENDIVE 15" FLAT PANEL PC w/ KEYPAD
MODEL 4526KP: DIVISION 2 NON-INCENDIVE 19" FLAT PANEL PC w/ KEYPAD
MODEL 4528KP: DIVISION 2 NON-INCENDIVE 22" FLAT PANEL PC w/ KEYPAD

WALL MOUNT HOLE DIMENSIONS

<table>
<thead>
<tr>
<th>DISPLAY SIZE</th>
<th>H1</th>
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<th>H3</th>
<th>W1</th>
<th>W2</th>
<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>VH</th>
<th>VW</th>
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<tbody>
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<td>19.00&quot;</td>
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<td>18.807&quot;</td>
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</table>

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NOTES:
1. REFER TO ALL LOCAL CODES FOR CONDUIT ENTRY INFORMATION.
   The top plate on the enclosure has three, 1/4" pilot holes for cable entry.
   Drill any of the 3 holes to the correct size for your conduit or cord grip. If choosing to enter the
   enclosure at another point, examine the inside of the enclosure so the internal equipment will not be damaged.
   Carefully clean the inside after attaching your conduit or cord grip.
2. When using a cord grip, select a size that will "grip" the cables without
   damaging the cables. Daisy data can provide the following cord grip sizes:
   M290-000008: 0.25 NPT, 0.156" cable dia.
   M290-000010: 0.375 NPT, 0.25" cable dia.
   M290-000012: 0.5 NPT, 0.25" cable dia.
   M290-000014: 0.375 NPT, 0.3125" cable dia.
   M290-000015: 0.5 NPT, 0.1875" cable dia.
   M290-000009: 0.5 NPT, S.S, 0.187" cable dia.
   M290-000010: 0.5 NPT, S.S, 0.25" cable dia.
   M290-000011: 0.5 NPT, 0.375" cable dia.
   M290-000012: 0.5 NPT, 0.5" cable dia.
   All cord grips are zinc plated steel except M290-000015, M290-000012 & M290-000010. These are stainless steel.
3. See Table 1 for the Daisy data KVM CAT5 input cable model number & length.

Table 1

<table>
<thead>
<tr>
<th>Model</th>
<th>Length</th>
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<tbody>
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<tr>
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<tr>
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<td>9567</td>
<td>150'</td>
</tr>
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<td>9572</td>
<td>400'</td>
</tr>
<tr>
<td>9574</td>
<td>500'</td>
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</table>

Dimensions are in inches.
CUSTOMER SUPPLIED AIR INPUT

Y-PURGE ASSEMBLY FRONT PANEL

AIR INPUT LINE

1/4" HOSE
1/4" NPT CONNECTION

FLOW METER 20 - 200 SCFH

3/8" TUBE

AIR INPUT TO ENCLOSURE

INTERNAL PRESSURE METER, 0 - 15 INWC

SPARK ARRESTER PART OF EXHAUST ASSEMBLY

1/4" NPT CONNECTION

YPA BOARD

PRESSURE SWITCH

LOW SIDE

ALARM RELAY CONNECTIONS

SCREW TERMINALS

OVER PRESSURE EXHAUST

MTAS CONNECTION

CUSTOMER SUPPLIED ALARM RELAY CABLE

EQUIPMENT ENCLOSURE

DIMENSIONS ARE IN INCHES

NOTES:

1. THE AIR INPUT FITTING IS A 1/4" NPT FEMALE. THE AIR SOURCE MUST BE CLEAN, DRY INSTRUMENT GRADE AIR CAPABLE OF SUPPLYING 35 TO 150 SCFH FROM 20 TO 100 PSI.

2. THE Y-PURGE ALARM BOARD (033-000002-03) IS LOCATED ON THE RIGHT SIDE FOR ALL MODELS SHOWN. A SIX CONDUCTOR CABLE IS REQUIRED.

3. FOR CABLE & CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWING "P002".

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We Thrive in the Harshest Environments Voice: (717) 932-9999 FAX: (717) 932-8000 or Visit Us At www.daisydata.com
Internal Pressure Meter

Mounting Holes (14)

Flow Meter
20 - 200 SCFH

Control Valve

Regulator, 20 PSI

Pressure Good LED

Alarm Reset Switch

Atmosphere Sense

Exhaust Adjustment

Exhaust

Internal Pressure Meter

M390-000086

Control Valve

M390-000087

Regulator, 20 PSI

M340-000001

Pressure Good LED

Alarm Reset Switch

Atmosphere Sense

Exhaust Adjustment

Exhaust

NOTES:

1. CONTROL VALVE: ADJUSTS THE AMOUNT OF AIR ENTERING THE ENCLOSURE WITH THE PURGE/OPERATE CONTROL. SWITCHES THE AIRFLOW INTO THE ENCLOSURE FROM PURGE TO OPERATE.

2. REGULATOR: ADJUSTS THE FLOW TO 150 SCFH DURING PURGE.

3. PRESSURE GOOD LED (PART OF THE ALARM BOARD OPTION): THIS LED ILLUMINATES GREEN WHENEVER THE INTERNAL PRESSURE IS ABOVE 0.4" WC & THE ALARM RELAY IS RESET.

4. ALARM RESET SWITCH (PART OF THE ALARM BOARD OPTION): USED TO RESET THE CUSTOMER CONTACTS AFTER AN ALARM CONDITION.

5. ATMOSPHERE SENSE (PART OF THE ALARM BOARD OPTION): USED BY THE PRESSURE SWITCH ON THE ZPA BOARD TO DETERMINE THE DIRECTION OF PURGE AIR EXITS THE ENCLOSURE. THE HOSE TO THE ZPA BOARD IS 1/8" BLUE.


7. FLOW METER: MEASURES THE AMOUNT OF AIR WHICH IS ENTERING THE ENCLOSURE. THE READING IS TAKEN FROM THE MIDDLE OF THE SILVER BALL. DURING PURGE THE FLOW SHOULD BE 150 SCFH.

8. INTERNAL PRESSURE METER: READS THE INTERNAL PRESSURE OF THE ENCLOSURE. THE DIAL ON THE METER IS CUSTOMIZED TO READ OPERATE, OVER PRESSURE & UNDER PRESSURE REGIONS.

Dimensions are in inches.

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2850 Lewisberry Road, York Haven, PA 17370

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Sheet 1 of 1
Mounting Hole (14)

Regulator, 20 PSI
M340-000001

Air Input for Y-Purge

Breather

Atmosphere Sense to YPA, 1/8" Hose

Control Valve
M340-000087

Internal Pressure Meter
M340-000086

Flow Meter
20-200 SCFH
M340-000010

Enclosure Air Input
3/8" Tube

Exhaust Assembly
640-000499-02

1/4" Hose

NOTES:

1. CONTROL VALVE:
   Adjusts the amount of air entering the enclosure with the purge/operate control. Switches the airflow into the enclosure from purge to operate.

2. INTERNAL PRESSURE METER:
   Reads the internal pressure of the enclosure. The dial on the meter is customized to read operate, over pressure & under pressure regions.

3. FLOW METER:
   Measures the amount of air which is entering the enclosure. The reading is taken from the middle of the silver ball during purge. The flow should be 150 SCFH.

4. ENCLOSURE AIR INPUT:
   This is air input into the enclosure. The output of the flow meter is a 3/8" tube. The end of this tube is placed at the opposite corner from the exhaust assembly. This tube must be unlocked.

5. EXHAUST ADJUSTMENT & EXHAUST ASSEMBLY:
   The assembly is the point at which purge air exits the enclosure. The assembly also includes the adjustment which can control the internal pressure of the enclosure. When the control valve is set to "operate", adjust for a reading of 0" w.c. on the internal pressure meter.

6. ATMOSPHERE SENSE:
   Used by the pressure switch on the YPA board to get differential pressure between the enclosure & the external environment. The hose to the YPA board is 1/8" blue.

7. AIR INPUT FOR Y-PURGE:
   Attachment point for the enclosure's purge air or inert gas. The air source must be clean dry instrument grade air capable of supplying 35 to 150 SCFH at 20-100 PSI. The enclosure is purge after 10 minutes with a flow of 150 SCFH. After the purge is complete, the system will require only an amount of air enough to maintain the enclosure pressure at 0" w.c.

8. SEAR AND ASPECT:
   Prevents flame from exiting the enclosure.

9. REGULATOR:
   Adjusts the flow to 150 SCFH during purge.

1/4" Hose

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2800 Lewistown Road, York Haven, PA 17370

DIMENSIONS ARE IN INCHES

Daisy Data, Inc.

Y-PURGE BACK PANEL
ITEM LOCATION DIAGRAM DRAWING

PO05

SHEET 1 OF 1
OUTSIDE ENCLOSURE

Seal Nut, 3/4NPT
M390-000015

Breather, 3/4NPT
M373-000010

INSIDE ENCLOSURE

Check Valve, 0.5PSI, 3/4NPT
M390-000094

Coupling, 3/4NPT, F-F
M390-000060

Elbow, 3/4NPT, M-F
M390-000058

NOTES:

1. CHECK VALVE: 0.5 PSI:
   The check valve will open if the internal pressure is greater than 0.5 PSI. This will prevent over pressurization of the enclosure.

2. BREATHER:
   The breather allows air to exhaust from the enclosure, but does not allow sparks to exit the enclosure.
**Air In Connection**

- **Mounting Holes (18)**
- **Exhaust Valve Assembly Kit**
  - 1640-000449-04
  - Under the Air In Box

**Regulator**

- M340-000171
- 1/4" NPT

**Air In Box**

- B40-000297-05
- 1/4" NPT

**Pressure Gauge**

- M340-000170

**Air In Explosion Proof Solenoid**

- F114-000010

**I/O Casting Screws (14)**

**Power Interface Board**

- XPI - 1051-000000

**I/O Conduit Connection**

- Point - 3/4" NPT

**Signal Switching Board**

- SSB - 1053-000000

**I/O Conduit Connection**

- Point - 3/4" NPT

**Dip Switch Mounting Board**

- DM8 - 1071-000000

**NOTES:**

1. **Regulator**
   - 5 - 100 PSI
   - The pressure regulator gives the user control over the air pressure. Therefore, the flow going into the enclosure. The pressure should be set between 50 & 100 PSI. An adjustment of 80 PSI will give a flow rate of approximately 300 CFM with an internal pressure inside the enclosure of 8" of water column.

2. **Exhaust Valve Assembly Kit**
   - This allows the purged air into the enclosure. Operates on +24 Volts DC.

3. **I/O Casting Screws**
   - Fourteen 1/4-20, 3/8" long bolts that hold the cover on the cast aluminum box.

4. **Power Interface Board**
   - See drawing "edit" for detail information.

5. **I/O Conduit Connection**
   - A 3/4" NPT entrance into the cast aluminum box. See drawing "poof" for conduit connection to the enclosure.

6. **Signal Switching Board**
   - See drawing "edit" for detail information.

7. **Dip Switch Mounting Board**
   - See drawing "edit" for detail information.

8. **Purge Status Cable**
   - The cable, 100-705, is the tri-colored LED Status indicator used to relay information to the user. A steady red at startup indicates the internal pressure and/or air flow is too low for adequate purging. A steady yellow indicates the purge is in progress. A flashing yellow indicates airflow. If the purge is complete, a flashing green indicates the purge was bypassed. If an error occurs during or after the purge the LED will flash red in a code. The error codes are listed by the blinking of the red LED.
   - 1-1: System Error (Consult Factory)
   - 2-1: Under Pressure
   - 2-2: Over Pressure
   - 3-1: Water Detected (Only with Water Cooler Option on Enclosure)
   - 4-1: Faulty Pressure Sensor
   - 4-2: Faulty Flow Sensor
   - 4-3: Purge Bypass Button is Stuck Closed
   - 4-4: Purge Bypass Button is Stuck Open

9. **Purging Safety Barriers**
   - The 3 U.S. Barriers limit the current & voltage to a circuit which must operate in hazardous environment. The interior of the enclosure prior to completing the purging to a level which ensures that a short or fault cannot cause a spark large enough to ignite a flammable gas or vapor. All signals & power which enter or return from the enclosure prior to the completion of the purging must be isolated with U.S. Barriers.

10. **Exhaust Valve Assembly Kit**
    - The valve allows the purge air to exhaust the enclosure. Once the purge is complete, the valve closes & will not reopen unless the internal pressure rises above 7" of WC or the purge is lost.

11. **Air Input Connection**
    - The attachment point for the enclosure's purge air is 1/4" NPT female fitting. The air source must be dry instrument grade air/paint gas capable of supplying 40 - 300 SCFH at 30 - 80 PSI. The enclosure is purged after 4 volumes of air have passed through it. After the purge is complete, the system will require only enough air to maintain the enclosure pressure above 1.5" of WC.
Purge Air Inlet

Exhaust Valve Assembly Kit
640-000449-04

Notes:
(1) Purge Air Inlet:
This is the point the purge air will enter the enclosure. The 1/4" tube should be free of dirt & kinks.
(2) Exhaust Valve Assembly Kit:
This valve opens during purge to exhaust the purge air. Once the purge air enters the valve, the valve will not re-open unless the internal pressure rises above 8" wc or the purge is lost.
(3) Atmosphere Sense:
Allows the pressure sensor on the purge control board to measure the differential pressure between the enclosure & the surrounding environment.
(4) Internal Signal Interface Board:
See drawing "ED01" for detail information.
(5) Purge Control Board:
Located under the RF Shield Box. See drawing "ED02" for detail information.
(6) Dip Switch Mounting Board:
See drawing "ED02" for detail information.
(7) RF Shield Box:
Protects the purge control board from RF radiation that would reset the purge system.
(8) Power I/O PAC Seal:
This PAC seal contains the AC power cable for the internal equipment. 24V cable for the solenoid & 3 data cables with 6 pairs in each cable. The PAC seal has the sealing compound though its length & can not be re-positioned.
(9) I.S. PAC Seal:
This PAC seal contains the intrinsically safe power cable & the enclosure redundant ground wire. The PAC seal has the sealing compound though its length & can not be re-positioned.
(10) Pilot Air Feed:
This air line provides the pilot pressure for the exhaust solenoid.

NOTES:
(1) Purge Air Inlet:
This is the point the purge air will enter the enclosure. The 1/4" tube should be free of dirt & kinks.
(2) Exhaust Valve Assembly Kit:
This valve opens during purge to exhaust the purge air. Once the purge air enters the valve, the valve will not re-open unless the internal pressure rises above 8" wc or the purge is lost.
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This air line provides the pilot pressure for the exhaust solenoid.
CUSTOMER SUPPLIED AIR INPUT LINE → AIR INPUT → REGULATOR 125 PSI → EXPLOSION PROOF SOLENOID → ENCLOSURE AIR INPUT → 1/4" HOSE

AIR INPUT PRESSURE METER, 0 - 100 PSI → 1/8" HOSE

AIR IN BOX

ATMOSPHERE SENSE

"T" FITTING FLOW TUBE → 1/4" NPT CONNECTION → 1/8" HOSE

PRESSURE SENSOR → PORT A

FLOW SENSOR → PORT A

J17

J15

MTA3

MTA4

STATUS LED

SHORT PURGE

BYPASS PURGE

EQUIPMENT ENCLOSURE

EXHAUST SOLENOID

EXHAUST PLUNGER

1/8" NPT CONNECTION

1/8" HOSE

1/8" HOSE

1/4" HOSE

1/4" HOSE

1/4" TUBE

1/4" NPT CONNECTION

1/8" NPT CONNECTION

1/8" NPT CONNECTION

1/8" NPT CONNECTION

Model 2663: DIVISION 1 X-PURGE FLAT PANEL INTEGRATED 15" MONITOR
Model 2668: DIVISION 1 X-PURGE FLAT PANEL INTEGRATED 15" MONITOR
Model 4363: DIVISION 1 X-PURGE FLAT PANEL INTEGRATED PC
Model 4366: DIVISION 1 X-PURGE 15" FLAT PANEL INTEGRATED PC
Model 4388: DIVISION 1 X-PURGE 22" FLAT PANEL INTEGRATED PC
Model 2666: DIVISION 1 X-PURGE FLAT PANEL INTEGRATED 22" MONITOR
Model 4563KP: DIVISION 1 X-PURGE FLAT PANEL 15" MONITOR w/ KEYPAD
Model 4566KP: DIVISION 1 X-PURGE FLAT PANEL 19" MONITOR w/ KEYPAD
Model 4568KP: DIVISION 1 X-PURGE 22" FLAT PANEL PC w/ KEYPAD

NOTES:

1. THE AIR INPUT FITTING IS A 1/4" NPT FEMALE. THE AIR SOURCE MUST BE CLEAN, DRY INSTRUMENT GRADE AIR CAPABLE OF SUPPLYING 40 TO 300 SCFH AT 30 TO 80 PSI.

2. THE SHORT & BYPASS PURGE SWITCHES ARE LOCATED UNDER THE 4.5" x 2" COVER ON THE LEFT OF THE PURGE PANEL.

3. FOR CABLE & CONDUIT ENTRY INTO THE ENCLOSURE, REFER TO DRAWING "P007".

DIMENSIONS ARE IN INCHES

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Daisy Data, Inc.
2850 Lewisberry Road, York Haven, PA 17370

PNEUMATIC BLOCK DIAGRAM DRAWING

STAND ALONE X-PURGE PNEUMATIC BLOCK DIAGRAM

DRAWING NUMBER P010

REV. A

SHEET 1 OF 1