

# 16D612 Power Module

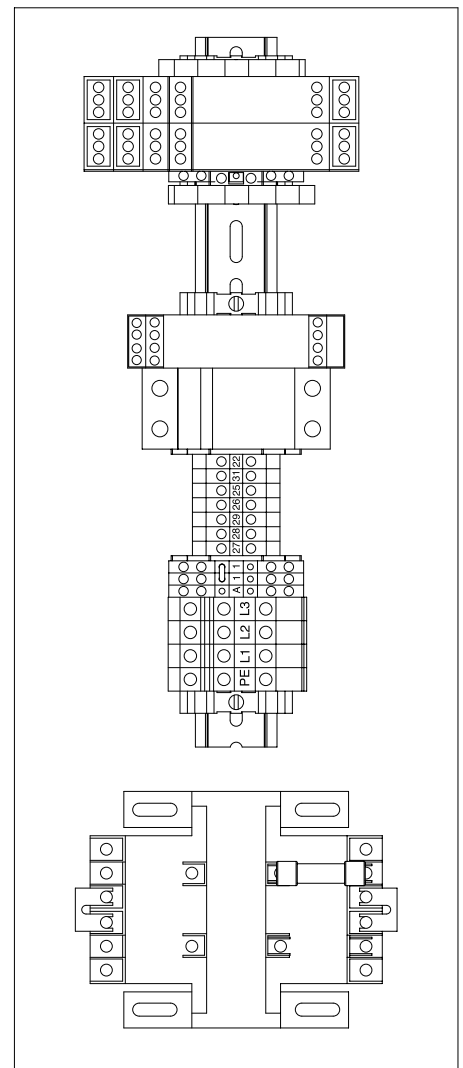
311608G  
EN

Power module for use with E-Flo<sup>®</sup> 4-Ball Piston Pumps. For professional use only.



### Important Safety Instructions





Read all warnings and instructions in this manual and in E-Flo Operation manual 311593. Save these instructions.



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# Warnings

The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <b>WARNING</b>	
	<p><b>FIRE AND EXPLOSION HAZARD</b></p> <p>Flammable fumes, such as solvent and paint fumes, in <b>work area</b> can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).</li> <li>• Keep work area free of debris, including solvent, rags and gasoline.</li> <li>• Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area. See <b>Grounding</b> instructions.</li> <li>• Use only grounded hoses.</li> <li>• Hold gun firmly to side of grounded pail when triggering into pail.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>
	<p><b>EQUIPMENT MISUSE HAZARD</b></p> <p>Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See <b>Technical Data</b> in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>
	<p><b>ELECTRIC SHOCK HAZARD</b></p> <p>Improper grounding, setup, or usage of the system can cause electric shock.</p> <ul style="list-style-type: none"> <li>• Turn off and disconnect power at main switch before disconnecting any cables and before servicing equipment.</li> <li>• Connect only to grounded power source.</li> <li>• All electrical wiring must be done by a qualified electrician and comply with all local codes and regulations.</li> </ul>

# Installation

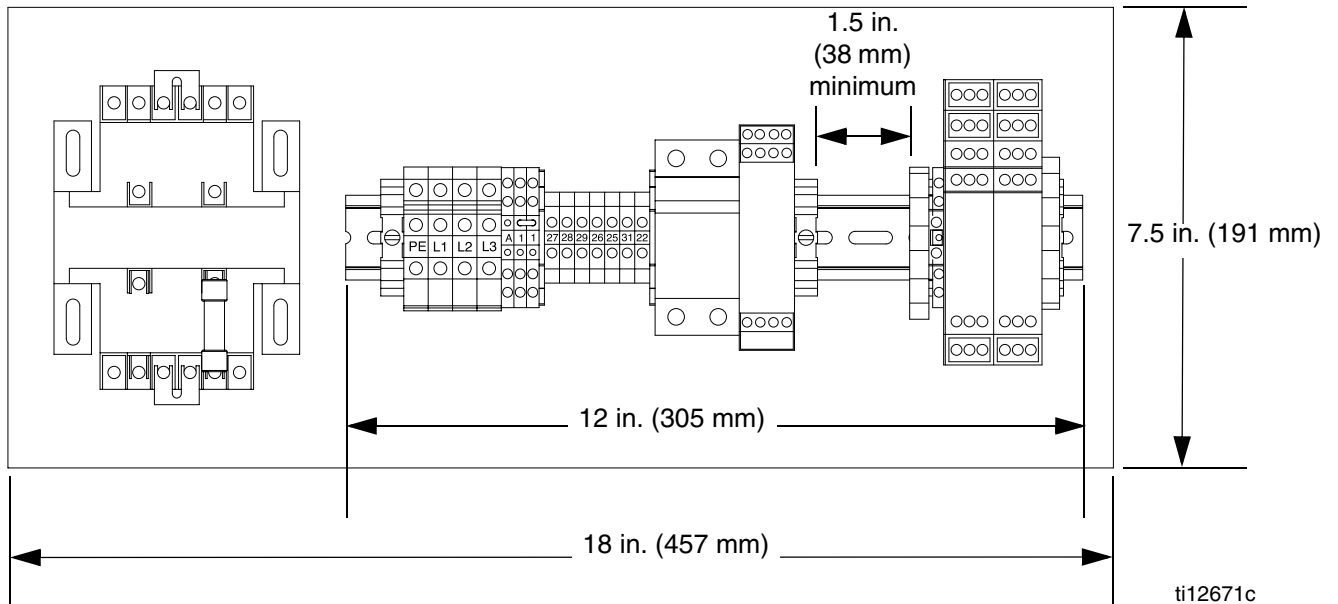
The 16D612 Power Module transforms AC power to a 24 Vdc power supply for the pump sensor circuit. The power module **must** be installed in the **non-hazardous** area.

The transformer is configured for 400/460 Vac input. One extra bridge is included with the module. Use the wiring instructions on a transformer label to rewire the transformer for lower voltage if needed (200/230 Vac).

See **System Wiring Schematics** on pages 4-6 for module wiring connections.

Wire passages from the hazardous to the non-hazardous area must be secured by explosion-proof seal fittings.

# Dimensions



# System Wiring Schematics

FIG. 1 shows components that must be installed in a non-hazardous location.

FIG. 2 shows components approved for installation in a hazardous location, and FIG. 3 shows detail views of hazardous location components.

## NON-HAZARDOUS AREA

- ① 12 Gauge Alpha Wire P/N V16012/equiv.
- ② 16 Gauge MTW Wire.
- ③ Blue/White 16 Gauge MTW Wire.
- ④ Blue 16 Gauge MTW Wire.

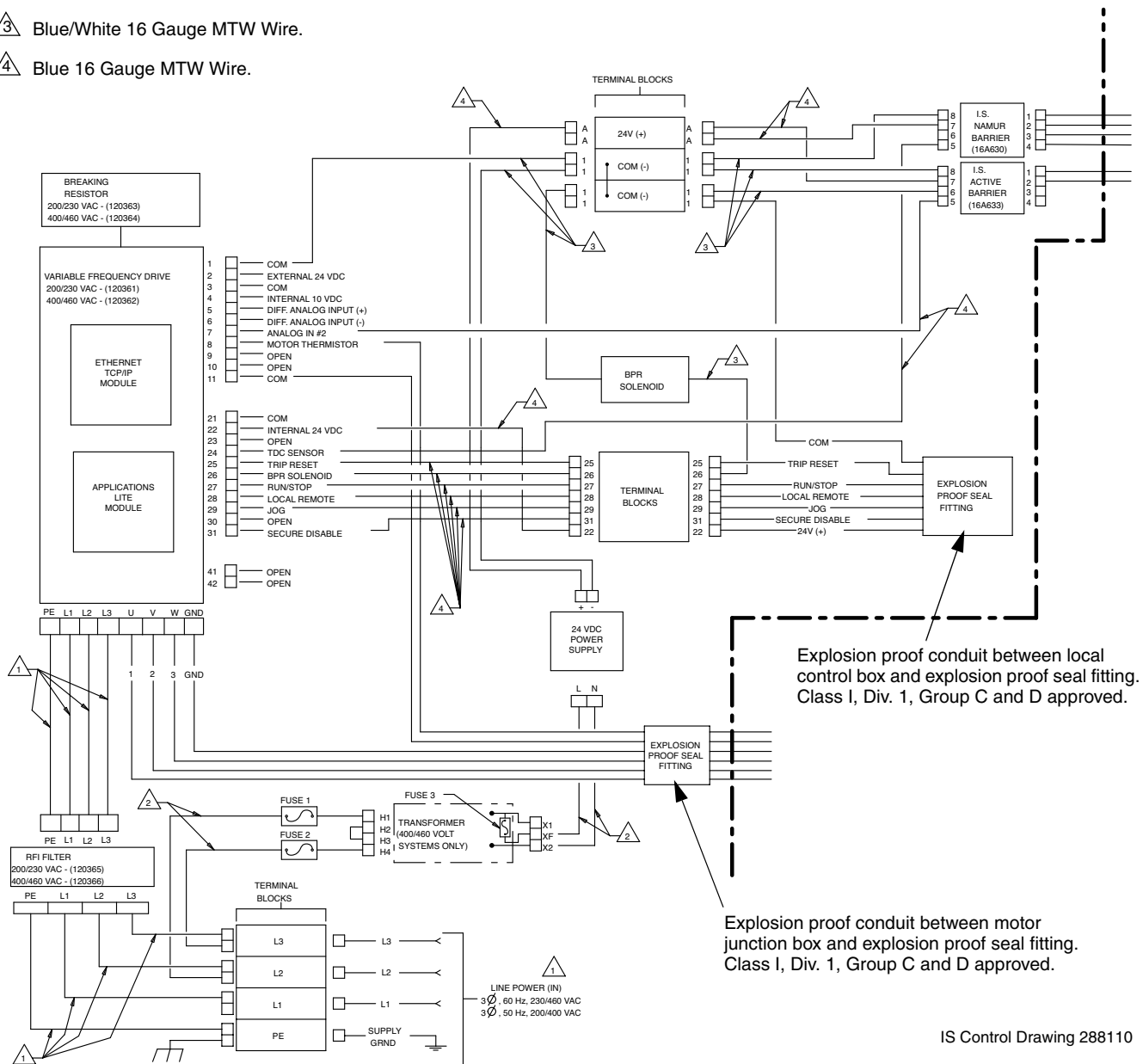


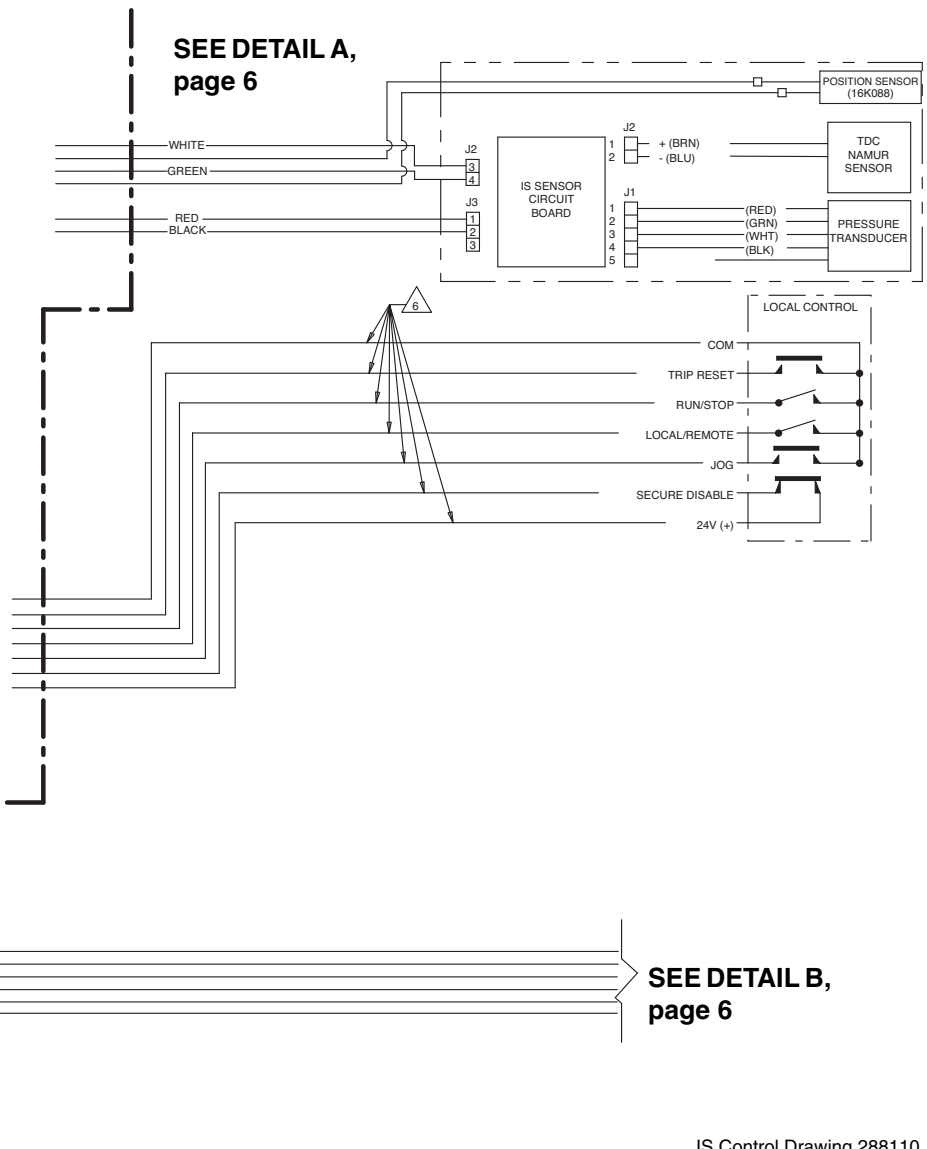
FIG. 1: System Wiring Schematic, Non-Hazardous Location Only

IS Control Drawing 288110

**HAZARDOUS AREA**

⚠ Alpha Wire P/N M16107LW/equiv.

**SEE DETAIL A,  
page 6**



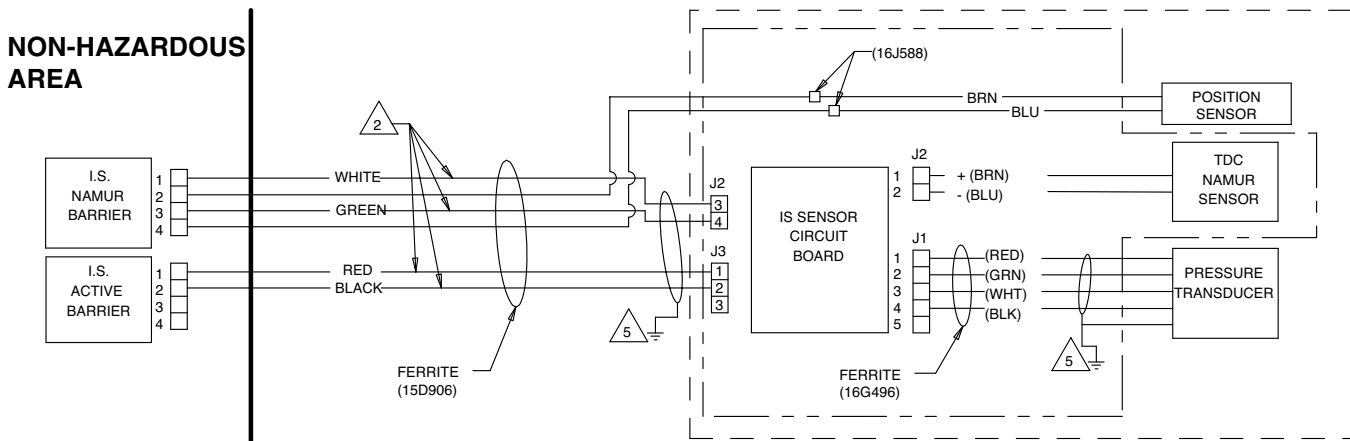
**SEE DETAIL B,  
page 6**

IS Control Drawing 288110

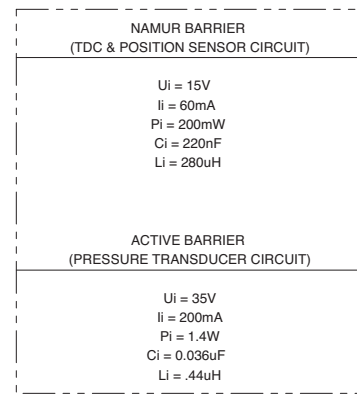
**FIG. 2: System Wiring Schematic, Hazardous Location**

**DETAIL A**

**HAZARDOUS (CLASSIFIED) LOCATION**  
**CLASS I, DIV. 1, GROUP C & D, T3 (FM ONLY)**  
**GROUP II, CATEGORY 2 - ZONE 1, GAS (ATEX ONLY)**  
**CLASS I, DIV. 1, GROUP C & D T3 (CANADA)**



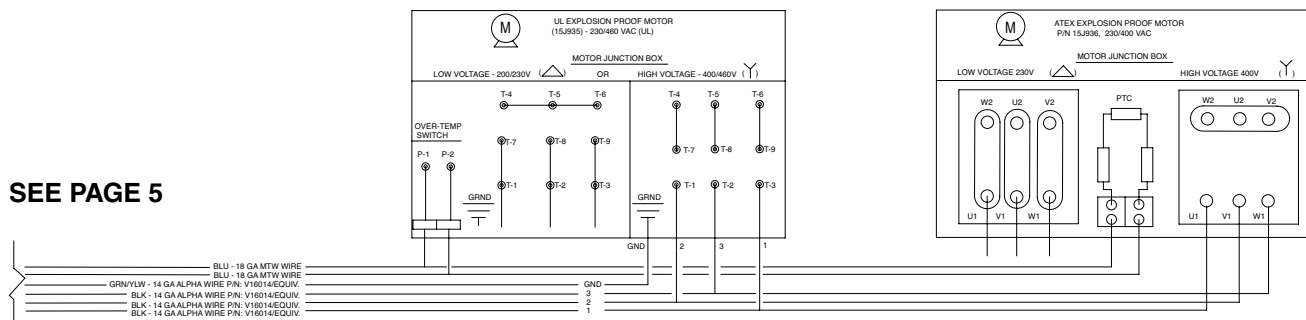
- 1 The installation must meet the requirements of the National Electric Code, Canadian Electrical Code Part I, Article 504, NFPA 70, and ANSI/ISA 12.06.01.
- 2 Individually shielded cables needed to ensure separation of sensor and transducer circuits.
- 3 The voltage ( $V_{max}$  or  $U_i$ ), current ( $I_{max}$  or  $I_i$ ), and power ( $P_i$ ) must be equal to or greater than the voltage ( $V_{oc}$ ,  $U_o$ , or  $V_t$ ), current ( $I_{sc}$ ,  $I_o$ , or  $I_t$ ), and power ( $P_o$  or  $P_t$ ) levels, which can be delivered by the associated apparatus. In addition, the maximum unprotected capacitance ( $C_i$ ) and inductance ( $L_i$ ) of the intrinsically safe apparatus, including interconnecting wiring, must be less than the capacitance ( $C_a$ ) and inductance ( $L_a$ ) which can be safely connected to the associated apparatus.
- 5 Land shield drain and foil to conductive strain relief.



**DETAIL B**

**HAZARDOUS AREA**

SEE PAGE 5

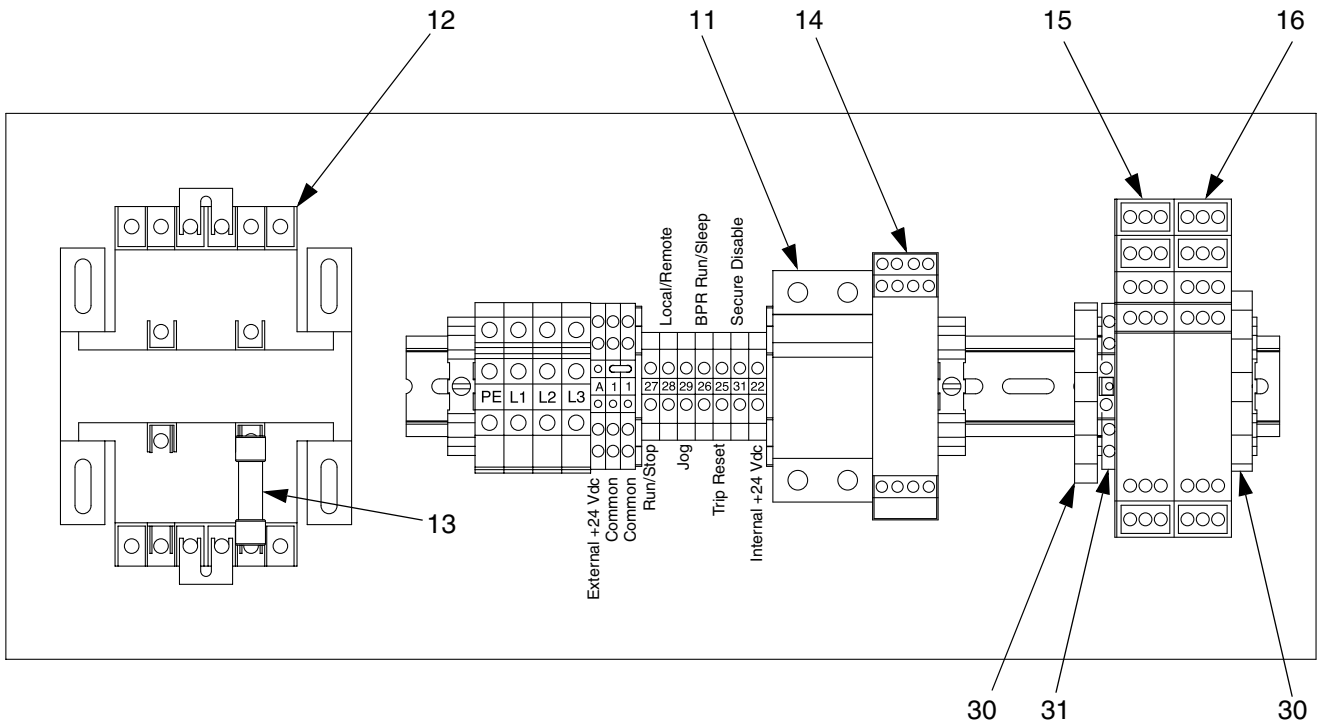


IS Control Drawing 288110

**FIG. 3: System Wiring Schematic, Hazardous Location Detail Views**

# Parts

Ref. No.	Part No.	Description	Qty
11	120474	FUSE, time-delay, 1 Amp	2
12	120475	CONTROL TRANSFORMER	1
13	120473	FUSE, fast-acting; 1.5 Amp	1
14	120369	POWER SUPPLY; 24 Vdc; 1 Amp	1
15	16A633	BARRIER, pressure transducer	1
16	16A630	BARRIER, TDC sensor	1
30	120838	BLOCK, clamp end	2
31	112443	BLOCK, terminal ground	1



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Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

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**Phone:** 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

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Original instructions. This manual contains English. MM 311608

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