IR10 Introduction
The IR10 Interposing Relay (AC or DC Relay) Output Module is designed for use in applications such that certain process control equipment may require a higher operating current than can be supplied by various ABB (or other manufacturers') switch products. The module can be used for applications requiring control of on/off devices such as motors, motor starters, solenoids and alarms. The IR10 consists of printed circuit board mounted relay and three terminal blocks. It is supplied in an explosion proof enclosure (Class 1, Division 1). The unit is generally powered by 120 VAC, although other operating voltages are available. The module accepts one set of DPDT dry contacts as an output (NO and NC contacts).

PP10 Introduction
The PP10 Latching Relay Controller is designed for use in applications requiring control of on/off devices such as motors, motor starters, solenoids and alarms. The Pump-Pak is a control device consisting of a PC board mounted relay and associated components. The PP10 is supplied in an explosion proof enclosure (Class 1, Division 1) and is available with an optional mounting hardware kit. The PP10 is generally powered by 120 VAC, however, other operating voltages are available. The PP10 accepts two sets of contact inputs and provides a dry contact input (NO and NC contacts).

IR10 / PP10 Features
- Simplifies field relay implementation
- Broad application flexibility
- Easy mounting and installation
- Simple removal for maintenance
- Vibration resistant
- 10 amp contact rating
- Compact design

Applications
- Magnetically actuated switches
- Limit switches

The IR10 and PP10 work with any switch for additional power and control. Sample applications are available upon request. Present level applications range from butane, propane, oil, chlorine, acids, water and various interface level applications.
IR10 OPERATION
The IR10 operates as a simple interposing relay, actuated by an external limit switch. The relay will energize when a closed contact is sensed at the input terminal. When used for a motor, solenoid or alarm function, the input power is supplied to the IR-10 via a DC or AC connection. The input power is isolated from the output contacts. Two IR-10s can be configured to operate four isolated process devices. A circuit can be configured in a “fail-safe” mode such that a power failure will cause a high level alarm.

PP10 OPERATION
The PP10 operates as a simple start / stop control circuit, actuated by external limit switches. High or low level operation is selected via a miniature switch located on the circuit board. The on-board relay operates as follows: In the HLO (to empty a tank) position, relay K1 energizes when the high level limit is tripped and then deenergizes when the low level limit is reached. In the LLO (to fill a tank) position, relay K1 energizes when the low level limit is tripped and then deenergizes when the high level limit is reached. In the event of power failure with the relay energized, the PP10 unit will revert back to proper operation after one cycle of the level limit switches.

MOUNTING AND INSTALLATION
The IR10 and PP10 are supplied in an explosion proof enclosure (specify type C or L) and are mounted using standard conduit piping installation procedures. An optional flange mounting (hardware) kit is available. Three, well identified, terminal blocks provide a fast and easily accessible method of connecting the field wiring.

IR10 / PP10 SPECIFICATIONS

| Housing                     | Copper Free Aluminum  
|                            | Explosion Proof       
|                            | Class 1, Division 1, Groups B,C,D  
|                            | Dust Ignition Proof    
|                            | Class II/III, Division 1, Groups E,F,G  
|                            | Nema 4X                
| Electrical                 | Dry relay contacts, double pole throw  
|                            | Max: 10 A or 277 VAC @ 373 Watts; 15 A or 120 VAC @ 373 Watts  
|                            | 15 A or 30 VDC @ 300 Watts   
| Contact Action             | Break before make      
| Electrical Connection      | Terminal strip accepting AWG 30 to AWG 12 conductors  
| Operating Temperature      | -50°F (-46°C) to 160°F (71°C)  

**ORDERING INFORMATION**

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<th>IR10 or PP10 a.b.c.d</th>
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<tr>
<td>IR10 or PP10 a.b.c.d</td>
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<tr>
<td>a Operating Voltage</td>
<td>1 24 VAC</td>
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<td>2 24 DC</td>
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*Input power is supplied to the IR-10 or the PP-10 via a DC or AC connection. The input power is isolated from the output contacts.*