

IR10 / PP10

Field Indicator and Controller

External relays

K-TEK Level products



**PP10 (Latching Relay)
Pump-Pak**



**IR10 (Interposing
Relay) with type L
enclosure**

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 interposting 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	
Contact Output	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

IR10 or PP10 a.b.c.d

a Operating Voltage

1 24 VAC

2 24 DC

3 120 VAC

4 220 VAC

b Enclosure Type

C In Line

L Right Angle

c Approvals

X None

N2 FM Explosion Proof

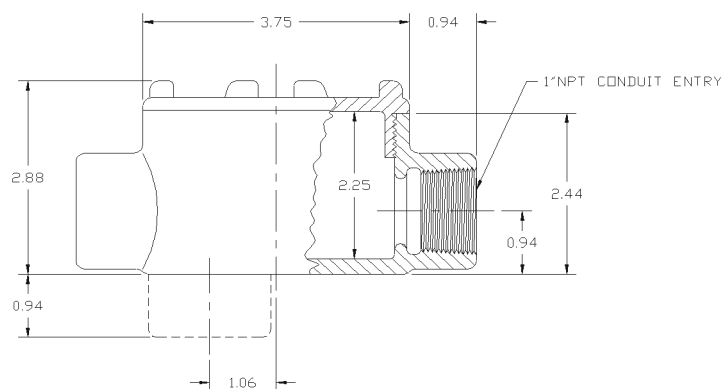


d Optional Mounting Hardware

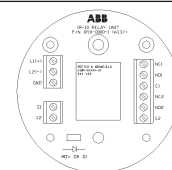
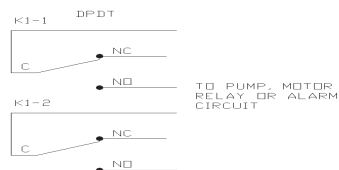
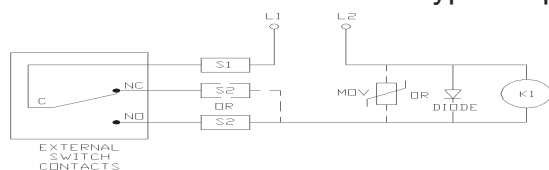
X None

H Optional Mounting Kit

Enclosure Dimensional Information

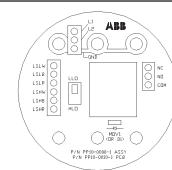
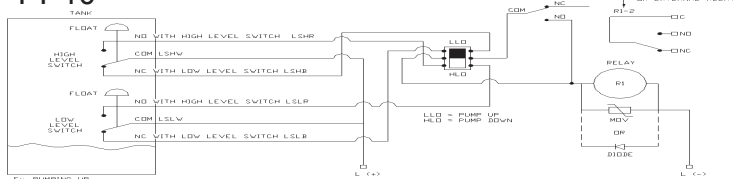


Typical Application - IR10*



IR10 Diagram

Typical Application - PP10*



PP10 Diagram

*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.

Contact us

ABB Inc.

Industrial Automation
125 E. County Line Road
Warminster, PA 18974 USA
Tel: +1 215 674 6000
Fax: +1 215 674 7183

ABB Inc.

17100 Manchac Park Lane (Suite B)
Baton Rouge, LA 70817 USA
Phone: +1 225 408 0800
Service: +1 225 408 0898
Fax: +1 225 408 0899
Service e-mail: ktek-service@us.abb.com

www.abb.com/level

Note

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents - in whole or in parts - is forbidden without prior written consent of ABB.

Copyright© 2017 ABB
All rights reserved

DS_IR10_PP10-EN_H Rev. H 04.2017