

POTTER & BRUMFIELD RELAYS

New flat pack I/O modules permit PC board spacing on half-inch centers.

IACP/OACP/IDCP/ODCP SERIES

Potter & Brumfield flat pack, input/output (I/O) modules provide a means of reliably interfacing between microprocessor- or computer-based control systems and external input devices and loads such as switches, sensors, valves and motor starters.

These solid state I/O modules are offered in four photo-isolated versions: AC/DC input, AC output, DC input and DC output. All are color coded by function and provide a high degree of isolation and noise immunity between the logic and external components.

Input modules provide an output which is active low. Output modules can be controlled from active low or active high logic. The AC output module utilizes zero voltage turn-on and zero current turn-off of the load to greatly reduce generated EMI and RFI.

All flat pack modules have printed circuit terminals which can be soldered to a PC board. For user convenience the modules will also plug into miniature spring sockets making interchanging in the field quick and easy.

On modules of the same voltage type, AC or DC, the output of output modules is compatible with the input of input modules. This makes these modules ideal for series operation applications.

ENGINEERING DATA

Switch Form: 1 Form A (SPST-NO).

Duty: Continuous.

Isolation: 4,000V rms, 60 Hz. (Pins 1&2 shorted; pins 3,4&5 shorted).

Transient Noise Immunity: > 3,000V_{p-p} (NEMA ICS2-230).

Series Compatibility: The output of the AC output module is compatible with the input of the AC input module, and the output of the DC output module is compatible with the input of the DC input module.

Insulation Resistance: 10¹¹ ohms @ 500V DC, minimum.

Moisture Resistance: 10¹¹ ohms @ 500V DC, minimum.

Capacitance: 10 pF maximum (input to output).

Operating Temperature: -30°C to +80°C

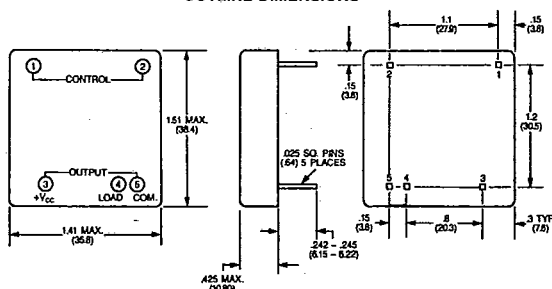
Storage Temperature: -40°C to +85°C

Case Material: Self extinguishing, 94V0.

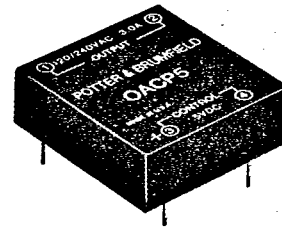
Solderability: 260°C for 10 seconds, maximum.

Approximate Weight: 0.8 oz. (21 grams).

OUTLINE DIMENSIONS



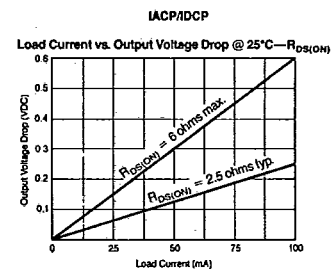
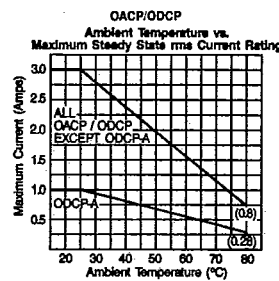
NOTE: Pin 5 is not present on OUTPUT MODULES.



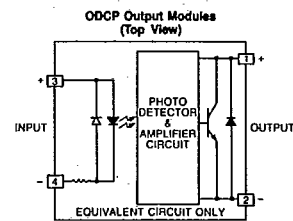
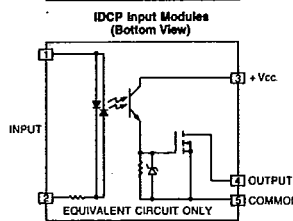
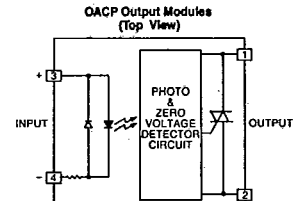
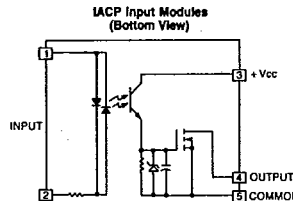
FEATURES

- Mounted Height of Only .425" (10.80 mm)
- Permit .500" (12.70 mm) PC Board Spacing
- Competitive Footprint
- P&B DIP Input/Output Modules Used Internally
- Color Coded by Function
- Input and Output Ratings Marked on the Package
- High Degree of Isolation and Immunity to False Operation
- Series Compatible
- UL File E22575 & E29244
- CSA File LR15734

ELECTRICAL CHARACTERISTICS



OPERATING DIAGRAMS



FLAT PACK I/O MODULE ORDERING INFORMATION

Part Number	Type	Case Color	System Voltage VDC	Input		Output			
				Voltage Range	Typical mA@		Load Current Over Load Voltage Range	Blocking V _{peak}	Switching Type
					Min. Voltage	Max. Voltage			
*IACP-5††	AC Input	Yellow	4.5-28	90-140 VAC	6	9	>0-100mA@>0-30VDC	—	Random
*IACP-5A††	AC Input	Yellow	4.5-28	180-280 VAC	4.5	7	>0-100mA@>0-30VDC	—	Random
*OACP-5	AC Output	Black	5	3-6 VDC	9	24	.02-3A@12-280VAC	500	Zero
*OACP-5A	AC Output	Black	5	3-6 VDC	9	24	.02-3A@12-280VAC	600	Zero
*IDCP-5	DC Input	White	4.5-28	10-36 VDC	3.5	13	>0-100mA@>0-30VDC	—	Random
*IDCP-5A	DC Input	White	4.5-28	18-60 VDC	4	14	>0-100mA@>0-30VDC	—	Random
*ODCP-5	DC Output	Red	5	3-6 VDC	7	18	.02-3A@5-60VDC	—	Random
*ODCP-5A	DC Output	Red	5	3-6 VDC	7	18	.02-1A@10-200VDC	—	Random

†† Input will operate on AC or DC voltage.

• Denotes UL
* Denotes CSA