



Data Sheet: DCI-90-242

Description:

The PDC Model DCI-90 dual channel DC isolator is designed specifically to meet the New York Department of Transportation, Model 242 specifications. Each channel of the DC isolator shall present a true signal (ground closure) at the output of its optical coupling device when a contact closure causes an input voltage of less than 8 VDC, for longer than 5 milliseconds. A transition from a true to a false signal at the output shall occur when the respective contact closure causes an input voltage of greater than 12 VDC.

All electronics are provided on a single sided P.C. board with an aluminum front panel. The P.C. board is provided with a solder mask, silk screen identifying all component locations and is conformally coated to resist adverse environmental conditions.

Installation:

The DC Isolator integrates with the model 332 cabinet input file. Connector pin outs are as shown in Fig. 1. The connector mates with a Cinch #250-22-30-xxx or equivalent.

Pin	Function	Pin	Function
A	DC ground	N	NA
B	+24 VDC	P	NA
C	NA	R	NA
D	Input #1	S	NA
E	NA	T	NA
F	Output #1 (C)	U	NA
H	Output #1 (E)	V	NA
J	Input #2	W	Output #2 (C)
K	NA	X	Output #2 (E)
L	Chassis ground	Y	NA
M	NA	Z	NA

FIG 1

General Characteristics:

Model DCI-90-242

Input:

True State.....<8 VDC,>5 msec.

False State.....>12 VDC

Output:

Voltage.....30 VDC max (open collector)

Current.....To mamp. sink (true state)

Isolation:

Voltage.....2500 VAC

Resistance.....1000 megohm.

Transient suppression:

Energy.....50 Joule

Mechanical Characteristics:

Length 7.00 IN

Width..... 1.12 IN

Height..... 4.50 IN

Weight..... 0.4 LBS

Adjustments:

No Adjustment Controls are provided on the DC Isolator