

## Twenty-One Pole Relay Unit Specifications

### I. Design Standard:

The Twenty-one pole relay unit was designed for use in Nav / GPS or other display / data switching installation applications while also attempting to meet any special requirements established by certification agencies. The Twenty-one pole relay unit contains a group of relays that are energized and de-energized in unison. Available to the installer are twenty-one separate poles (switching contacts), each pole includes a common wiper, a normally closed contact and a normally open contact. Special features of the Twenty-one Pole unit include, 14 or 28 Volt Power Connections, a Low Power Sensing Circuit, an Optional Localizer Override Connection, Circuit Shielding and Relay Energize Contact Confirmation.

### II. Environmental Stress:

Temperature ..... -40 to + 70 Degrees C (Ambient).

Humidity ..... 95% Non-Condensing.

### III. Electrical:

Power:

28 Volt Installation = +20 to +33VDC 200mA energized / 60mA non-energized.

14 Volt Installation = +12 to +18VDC 200mA energized / 60mA non-energized.

Low Power Sensing:

28 Volt Installation =  $18.25 \pm 0.5$ VDC /  $18.25 +1.0, -0.5$  at  $40^{\circ}\text{C}$ .

14 Volt Installation =  $10.25 \pm 0.5$ VDC /  $10.25 +1.0, -0.5$  at  $40^{\circ}\text{C}$ .

Relay Energize Confirmation Time:

100 milliseconds Minimum to 250 milliseconds Maximum.

The relay contacts must be confirmed within this time period to ensure that the relays remain energized.

Relay Contact Rating:

10 micro Ampere Low.

2.0 Ampere Maximum.

### IV. Interface:

Logic: Ground seeking continuous input for relay energize capable of sinking 200mA .

Ground seeking Localizer Energize input capable of sinking 10mA.

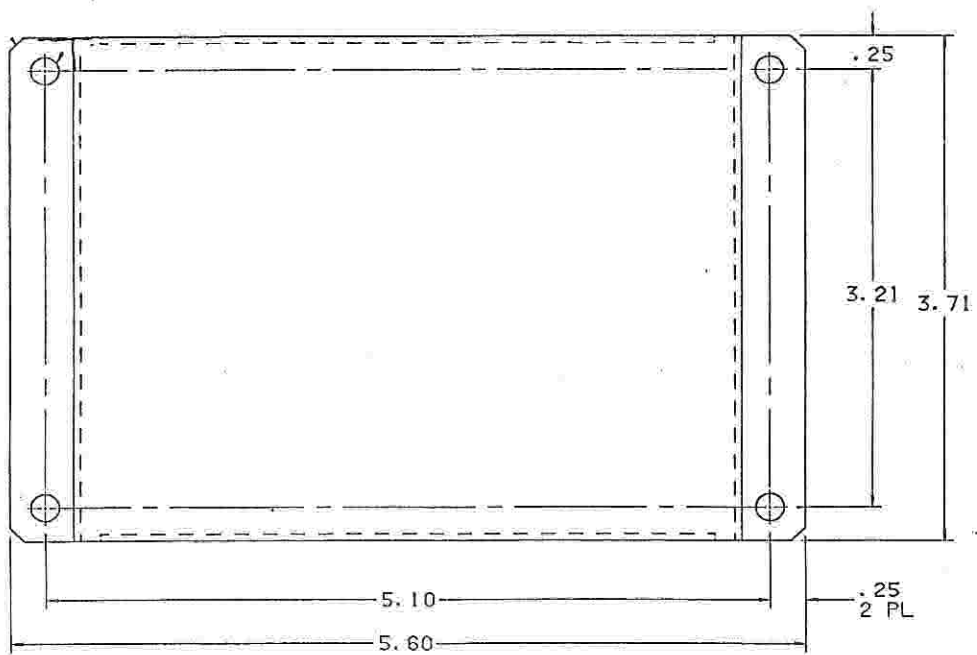
### V. Physical:

Dimensions: 1.5 in / 5.6 in / 3.8 in h / w / d

Mounting: Bulkhead 4 each #10 or #8 Screws.

Connector: 78 pin Male High Density High reliability D-Sub Connector.

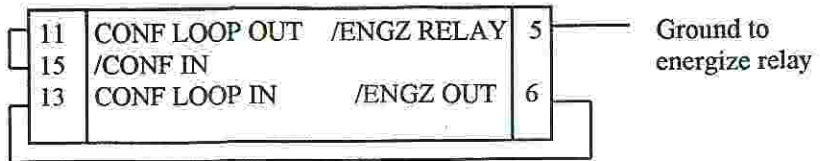
21 Pole Relay  
PHYSICAL DIMENSIONS



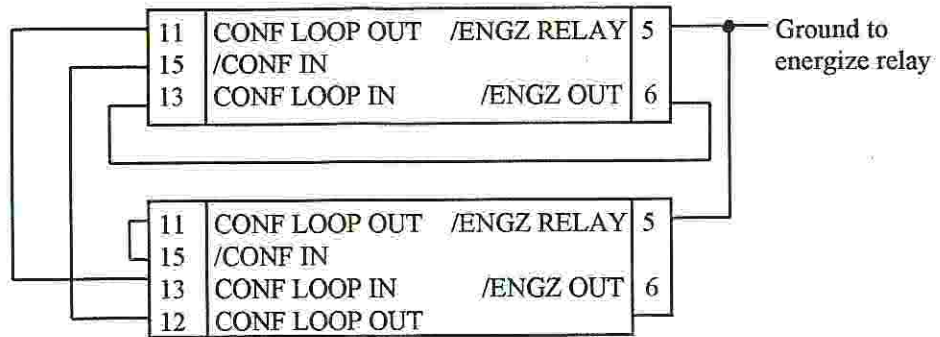
60	1 NO	1 C	40
21	1 NC		
61	2 NO	2 C	41
22	2 NC		
62	3 NO	3 C	42
23	3 NC		
63	4 NO	4 C	43
24	4 NC		
64	5 NO	5 C	44
25	5 NC		
65	6 NO	6 C	45
26	6 NC		
66	7 NO	7 C	46
27	7 NC		
67	8 NO	8 C	47
28	8 NC		
68	9 NO	9 C	48
29	9 NC		
69	10 NO	10 C	49
30	10 NC		
70	11 NO	11 C	50
31	11 NC		
71	12 NO	12 C	51
32	12 NC		
72	13 NO	13 C	52
33	13 NC		
73	14 NO	14 C	53
34	14 NC		
74	15 NO	15 C	54
35	15 NC		
75	16 NO	16 C	55
36	16 NC		
76	17 NO	17 C	56
37	17 NC		
77	18 NO	18 C	57
38	18 NC		
78	19 NO	19 C	58
39	19 NC		
20	20 NO	20 C	59
19	20 NC		
18	21 NO	21 C	17
16	21 NC		
9	SHIELD	LOC GND	7
10	SHIELD	/ENGZ OUT	6
11	CONFLOOP OUT	/ENGZ RLY	5
12	CONFLOOP OUT	GND	4
13	CONFLOOP IN	GND	2
14	CONFLOOP IN	13.75 IN	3
15	/CONFIRM IN	27.5 IN	1

# CONFIRMATION LOOP JUMPER INSTALLATION

## SINGLE RELAY INSTALLATION



## 2 RELAY INSTALLATION



## 3 OR MORE RELAYS

