



A COMPANY OF STPI GROUP

# **E410, ES410, & EA410**

## **Military Specified**

### **Meets MIL-PRF-83536**

#### **General Characteristics**

Number of Poles:

Dimensions:

Weight:

-Mounting Code 09:

4 Form C (4PDT)

1.025" x 1.025" x 1.010"

(26.0mm x 26.0mm x 25.7mm)

0.17 lb. (77 grams)

0.20 lb. (90.6 grams)

#### **Switching Characteristics**

Operate Time @ 25°C:

-EA410:

Release Time @ 25°C:

-Mounting Code 09:

-EA410:

Bounce Time:

Mechanical Life:

15 ms Max.

20 ms Max.

15 ms Max.

20 ms Max.

50 ms Max.

1 ms Max.

400,000 Cycles

#### **Environmental Characteristics**

Temperature Range:

Vibration (Sinusoidal):

Mounting Code 03:

Shock (any axis):

Mounting Code 03:

Seal:

-70°C to +125°C

30g 10-3,000 Hz

20g 57-3,000 Hz

200g, 6 ms

100g, 6 ms

Hermetic (1x10<sup>-8</sup> atm cm<sup>3</sup>/s)

#### **Electrical Characteristics**

Contact Voltage Drop (at rated resistive load)

-Initial:

-After Guaranteed Life:

Dielectric Strength

Coil to Case @ Sea Level

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

All Other Points @ Sea Level

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

Coil to Case @ Sea Level (Mounting Code 09)

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

All Other Points @ Sea Level (Mounting Code 09)

-Initial @ 60 Hz:

-After Life Test @ 60 Hz:

Insulation Resistance

-Initial:

-After Life Tests:

-Mounting Code 09:

-Max. Leakage Current (Mounting Code 09):

Back EMF (Transient Voltage):

150 mV Max.

175 mV Max.

1,000 Vrms

1,000 Vrms

1,250 Vrms

1,000 Vrms

1,050 Vrms

1,050 Vrms

1,500 Vrms

1,250 Vrms

100 MΩ Min, @ 500 Vdc

50 MΩ Min, @ 500 Vdc

100 MΩ Min, @ 500 Vdc

100 μA RMS

42 Vdc Max. (ES410 Only)





A COMPANY OF STPI GROUP

**Dash Numbers – Specification Sheet Number 15: E410**

Dash Number	Coil Code	Mount	Terminals	Coil Voltage	Max Pickup Voltage at 25°C	Max Pickup Voltage at 125°C	Max Hold Voltage at 125°C	Min Dropout Voltage at -70°C	Coil Resistance (Ω, +/- 10% at 25°C)
009	02	01	ET	12	6.5	9	4.5	0.5	70
010	02	01	AT	12	6.5	9	4.5	0.5	70
011	02	01	BG	12	6.5	9	4.5	0.5	70
012	02	02	ET	12	6.5	9	4.5	0.5	70
013	02	02	AT	12	6.5	9	4.5	0.5	70
014	02	02	BG	12	6.5	9	4.5	0.5	70
015	02	03	ET	12	6.5	9	4.5	0.5	70
016	02	03	AT	12	6.5	9	4.5	0.5	70
017	04	01	ET	28	14	19.5	7	1.5	290
018	04	01	AT	28	14	19.5	7	1.5	290
019	04	01	BG	28	14	19.5	7	1.5	290
020	04	02	ET	28	14	19.5	7	1.5	290
021	04	02	AT	28	14	19.5	7	1.5	290
022	04	02	BG	28	14	19.5	7	1.5	290
023	04	03	ET	28	14	19.5	7	1.5	290
024	04	03	AT	28	14	19.5	7	1.5	290

**Dash Numbers – Specification Sheet Number 16: ES410**

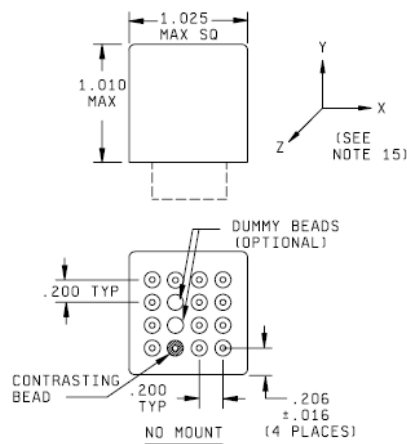
Dash Number	Coil Code	Mount	Terminals	Coil Voltage	Max Pickup Voltage at 25°C	Max Pickup Voltage at 125°C	Max Hold Voltage at 125°C	Min Dropout Voltage at -70°C	Coil Resistance (Ω, +/- 10% at 25°C)
009	02	01	ET	12	6.5	9	4.5	0.5	80
010	02	01	AT	12	6.5	9	4.5	0.5	80
011	02	01	BG	12	6.5	9	4.5	0.5	80
012	02	02	ET	12	6.5	9	4.5	0.5	80
013	02	02	AT	12	6.5	9	4.5	0.5	80
014	02	02	BG	12	6.5	9	4.5	0.5	80
015	02	03	ET	12	6.5	9	4.5	0.5	80
016	02	03	AT	12	6.5	9	4.5	0.5	80
017	04	01	ET	28	14	19.5	7	1.5	290
018	04	01	AT	28	14	19.5	7	1.5	290
019	04	01	BG	28	14	19.5	7	1.5	290
020	04	02	ET	28	14	19.5	7	1.5	290
021	04	02	AT	28	14	19.5	7	1.5	290
022	04	02	BG	28	14	19.5	7	1.5	290
023	04	03	ET	28	14	19.5	7	1.5	290
024	04	03	AT	28	14	19.5	7	1.5	290
025	00	09	GG	28	14	18.7	7	1.5	290
034*	28	02	BG	28	14	19.5	7	1.5	290

\*This relay is supplied without internal Arc Barriers and is not rated for AC loads

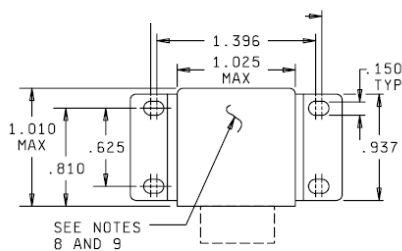
**Dash Numbers – Specification Sheet Number 17: EA410**

Dash Number	Coil Code	Mount	Terminals	Coil Voltage / Freq.	Max Pickup Voltage at 25°C	Max Pickup Voltage at 125°C	Max Hold Voltage at 125°C	Min Dropout Voltage at -70°C	Coil Current (A, Max. at 25°C)
001	07	02	AT	115 / 400	73	90	30	5	.04
002	07	02	CG	115 / 400	73	90	30	5	.04
003	08	02	JT	115 / 50/400	73	90	40	5	.04
004	08	02	AT	115 / 50/400	73	90	40	5	.04
005	08	02	CG	115 / 50/400	73	90	40	5	.04
006	07	03	AT	115 / 400	73	90	30	5	.04
007	08	03	AT	115 / 50/400	73	90	40	5	.04
008	08	01	JT	115 / 50/400	73	90	40	5	.04
009	08	01	AT	115 / 50/400	73	90	40	5	.04
010	07	09	HG	115 / 400	75	95	30	5	.04

**Mounting Styles**

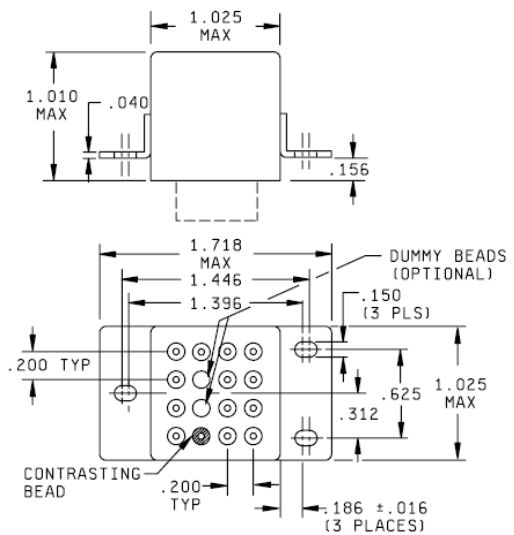


Mount 01:  
No Mount



Mount 03:  
Horizontal Flange

55 Engineers Road  
Hauppauge, NY 11788



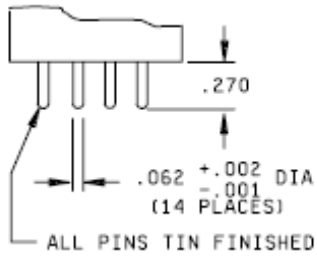
Mount 02:  
Raised Vertical Flange Mount

Mount 09:  
Track Mount B

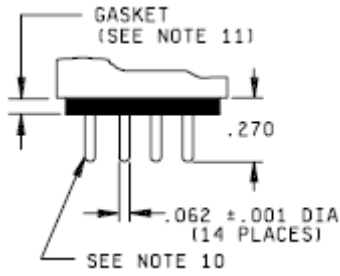
www.drirelays.net  
(631) 342-1700

Mil Spec E410  
Page 4/5

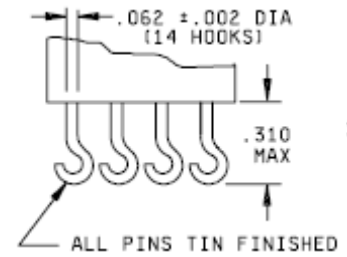
## Terminal Styles



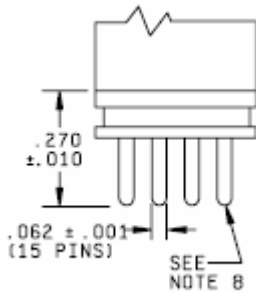
Terminal ET:  
Tin Plated Solder Pin – DC



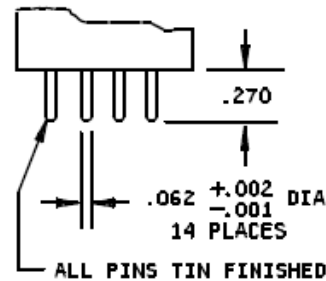
Terminal BG:  
Gold Plated Plug in - DC



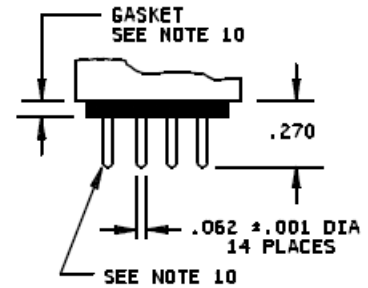
Terminal AT: Tin Plated  
Solder Hook – AC & DC



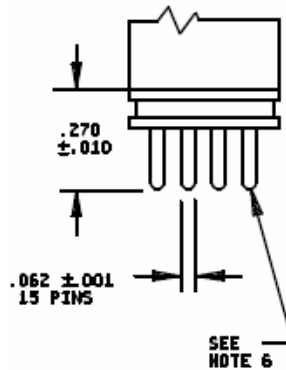
Terminal GG:  
Track Mount Plug in - DC



Terminal JT:  
Tin Plated Solder Pin - AC



Terminal CG:  
Gold Plated Plug in - AC



Terminal HG:  
Track Mount Plug in - AC