



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 (1x10⁻⁸ atm cm³/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

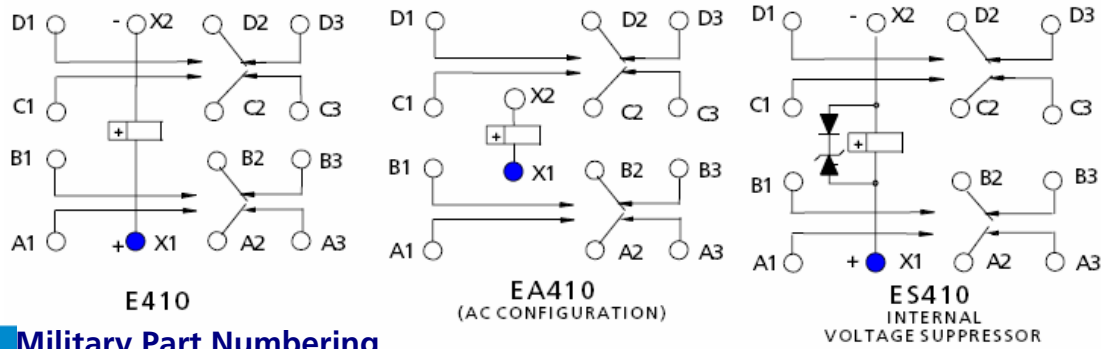
100 μA RMS

42 Vdc Max. (ES410 Only)

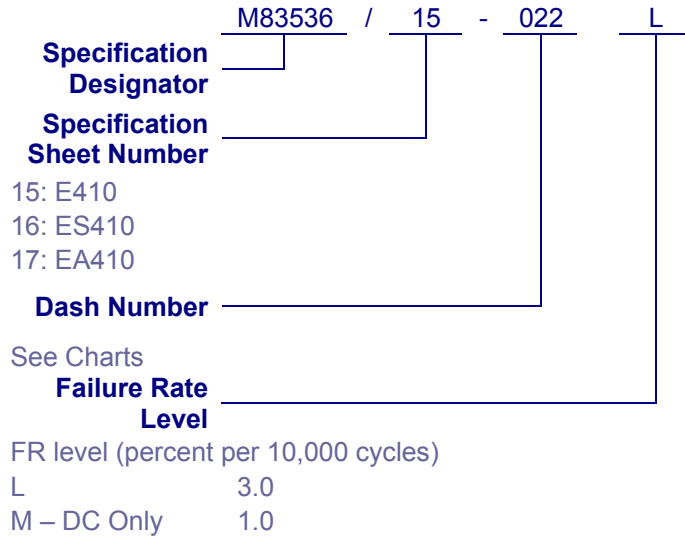
Contact Rating (Amps)

Type of Load (High Level)	Cycles x 10 ³	28 Vdc	115 Vac 400 Hz 1 Phase	115 Vac 50/60 Hz 1 Phase	115/200 Vac 400 Hz 3 Phase	115/200 Vac 50/60 Hz 3 Phase
Resistive	100	10	10	2.5	10	2.5
Inductive	20	8	8	N/A	8	N/A
Inductive	10	N/A	N/A	2.5	N/A	2.5
Motor	100	4	4	2	4	2
Lamp	100	2	2	1	N/A	N/A

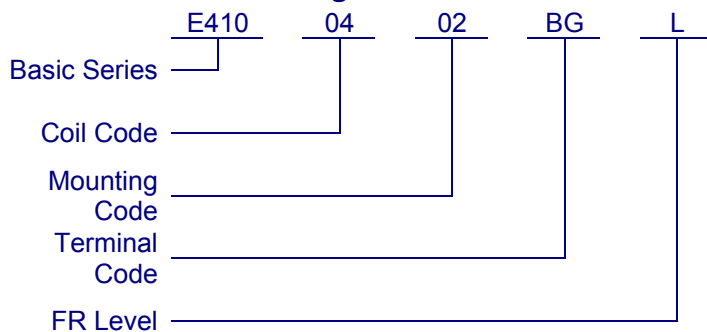
Circuit Diagram



Military Part Numbering



QPL Part Numbering





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Dash Numbers – Specification Sheet Number 15: E410

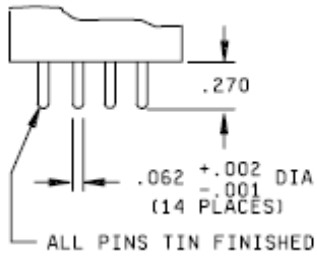
Dash Number	Coil Code	Mount	Terminals	Coil Voltage	Max Pickup Voltage at 25°C	Max Pickup Voltage at 125°C	Max Hold Voltage at 125°C	Min Dropout Voltage at -70°C	Coil Resistance (Ω, +/- 10% at 25°C)
009	02	01	ET	12	6.5	9	4.5	0.5	70
010	02	01	AT	12	6.5	9	4.5	0.5	70
011	02	01	BG	12	6.5	9	4.5	0.5	70
012	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

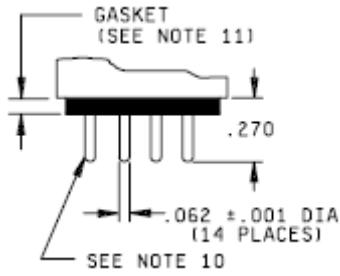
Dash Number	Coil Code	Mount	Terminals	Coil Voltage	Max Pickup Voltage at 25°C	Max Pickup Voltage at 125°C	Max Hold Voltage at 125°C	Min Dropout Voltage at -70°C	Coil Resistance (Ω, +/- 10% at 25°C)
009	02	01	ET	12	6.5	9	4.5	0.5	80
010	02	01	AT	12	6.5	9	4.5	0.5	80
011	02	01	BG	12	6.5	9	4.5	0.5	80
012	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

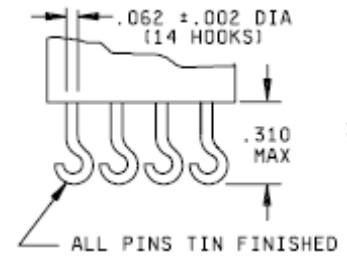
Terminal Styles



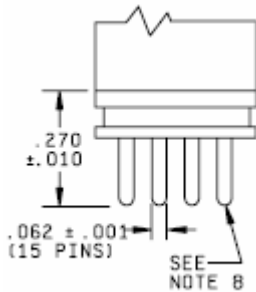
Terminal ET:
Tin Plated Solder Pin – DC



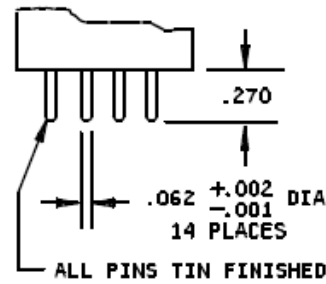
Terminal BG:
Gold Plated Plug in - DC



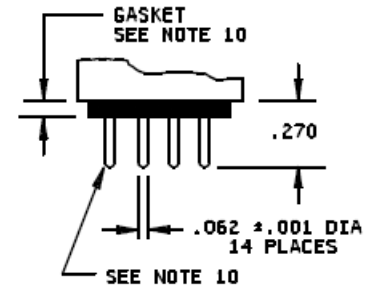
Terminal AT: Tin Plated
Solder Hook – AC & DC



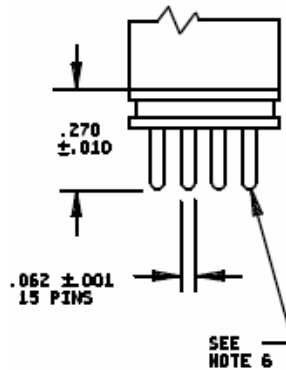
Terminal GG:
Track Mount Plug in - DC



Terminal JT:
Tin Plated Solder Pin - AC



Terminal CG:
Gold Plated Plug in - AC



Terminal HG:
Track Mount Plug in - AC