



General characteristics

	210/215	410/415
No. of poles	2 Form C (2 PDT)	4 Form C (4PDT)
Mass	54.5 grams [<i>.120 lb. Max</i>]	90.6 grams [<i>.20 lb. Max</i>]

Switching characteristics

Operate time @ 25°C with DC Coil	10 ms max.	15 ms max.
AC Coil	20 ms max.	15 ms max.
Release time @ 25°C with DC Coil	20 ms max.	20 ms max.
AC Coil	50 ms max.	50 ms max.
Bounce time	1 ms max.	1 ms max.

Mechanical Life **400,000 cycles**

Contact rating	Type of load (High level)	Cycles x 10 ³	28 Vdc	115 Vac	115 Vac*	115/200 Vac	115/200 Vac*	*10 AMP = 10,000 CYCLES
				400 Hz 1 phase	50/60 Hz 1 phase	400 Hz 3 phase	50/60 Hz 3 phase	
	Resistive	100	10 amps	10 amps	2.5 amps	10 amps	2.5 amps	
	Inductive	20	8 amps	8 amps	n/a	8 amps	n/a	
	Inductive	10	n/a	n/a	2.5 amps	n/a	2.5 amps	
	Motor	100	4 amps	4 amps	2 amp	4 amps	2 amps	
	Lamp	100	2 amps	2 amps	1 amps	n/a	n/a	
	Overload current	n/a	40 amps	60 amps	n/a	60 amps	n/a	
	Rupture current	n/a	50 amps	80 amps	n/a	80 amps	n/a	

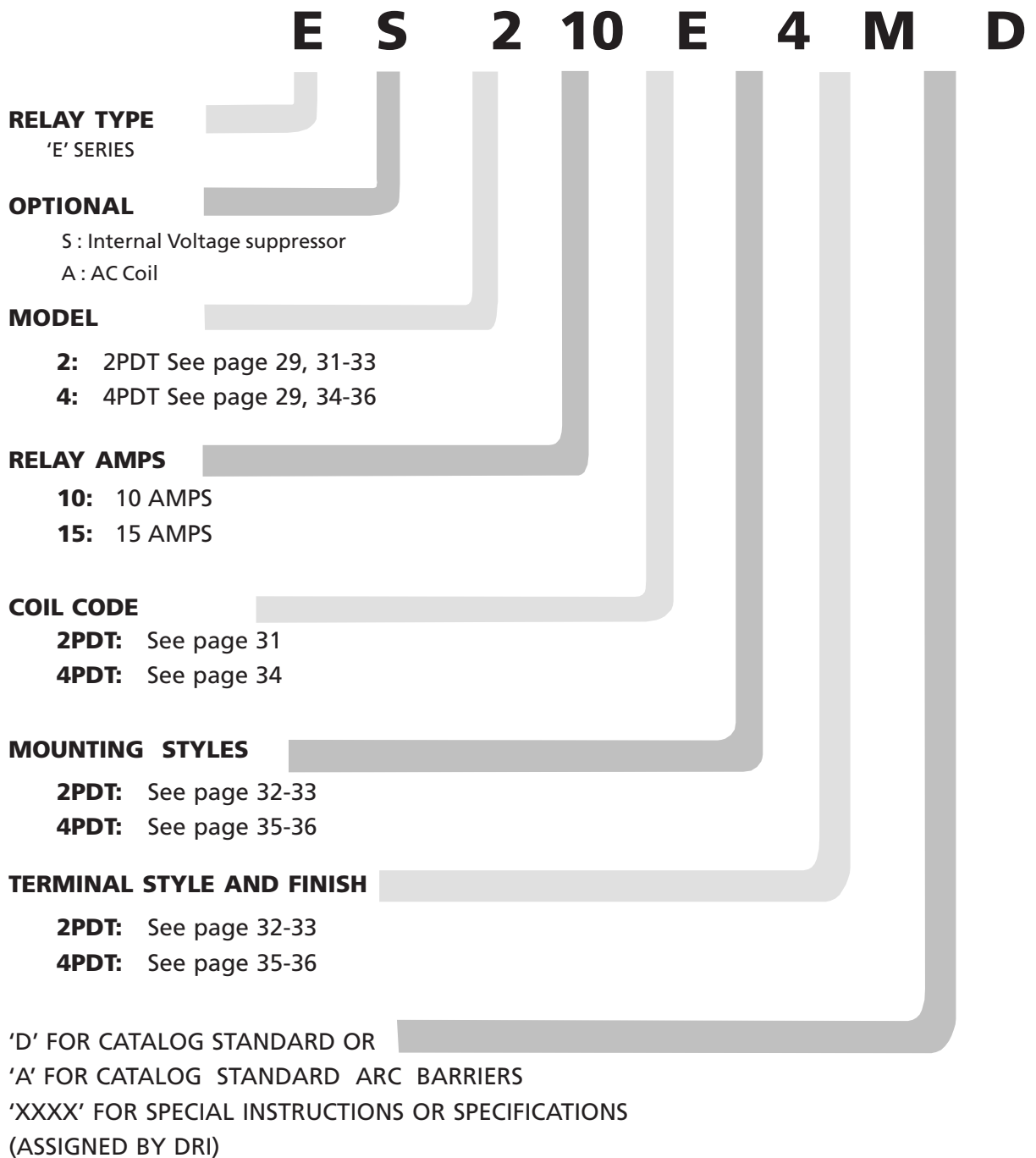
Type of load (High level)	Cycles x 10 ³	28 Vdc	115 Vac	115 Vac*	115/200 Vac	115/200 Vac*	*15 AMP = 10,000 CYCLES
			400 Hz 1 phase	50/60 Hz 1 phase	400 Hz 3 phase	50/60 Hz 3 phase	
Resistive	100	15 amps	15 amps	3.75 amps	15 amps	3.75 amps	
Inductive	20	10 amps	10 amps	n/a	10 amps	n/a	
Inductive	10	n/a	n/a	3.75 amps	n/a	3.75 amps	
Motor	100	6 amps	6 amps	3 amp	6 amps	3 amps	
Lamp	100	3 amps	3 amps	1.5 amps	n/a	n/a	
Overload current	n/a	40 amps	60 amps	n/a	60 amps	n/a	
Rupture current	n/a	50 amps	80 amps	n/a	80 amps	n/a	

Environmental characteristics

Temperature Range	-70°C to +125°C
Vibration (Sinusoidal)	30 g 10-3000 Hz
Shock, any axis	200 g 6 ms
Seal	Hermetic (1 x 10 ⁻⁸ atm cm ³ /s)

Electrical characteristics

Contact voltage drop (@ Rated resistive load)	
- Initial	150 mV Max.
- After guaranteed life	175 mV Max.
Dielectric strength @ sea level	Coil to Case All other points
- Initial @ 60 Hz	1050 Vrms 1500 Vrms
- After guaranteed life	1050 Vrms 1250 Vrms
Insulation Resistance	
- Initial	100 Megohms min. @ 500 Vdc
- After life tests	100 Megohms min. @ 500 Vdc
- Max. leakage current	100 Microamperes RMS.
Reference Military Specification	MIL-PRF-83536

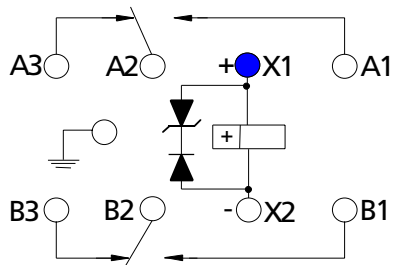


Coil characteristics

COIL CODE	DC						AC	
	A	B	D	E	G	J	L	N
Nominal coil voltage	6	12	26,5	28	48	110	115-400 Hz	115-50/60/400 Hz
Maximum pick-up voltage at 25°C	3	6	13,5	14	24	55	75	75
Maximum pick-up voltage at 125°C	3,9	7,7	18	18,7	31	70	95	95
Minimum drop-out voltage at -70° C	2	5	1,2	1,5	2	5	5	5
Coil resistance (ohms ± 10% at 25°C)	20	80	320	320	955	5000	-	-
Maximum coil transient suppression (where applicable) VDC	42	42	42	42	100	180	-	-

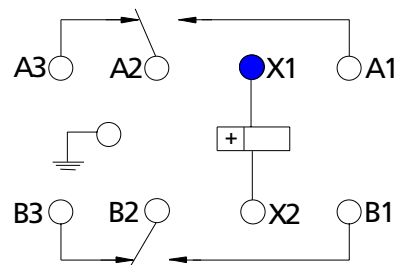
OTHER VOLTAGES AVAILABLE FROM FACTORY ON REQUEST

Circuit diagram



ES210

INTERNAL VOLTAGE SUPPRESSOR
NOTE: MOUNTING STYLE 6 WITHOUT GND PIN



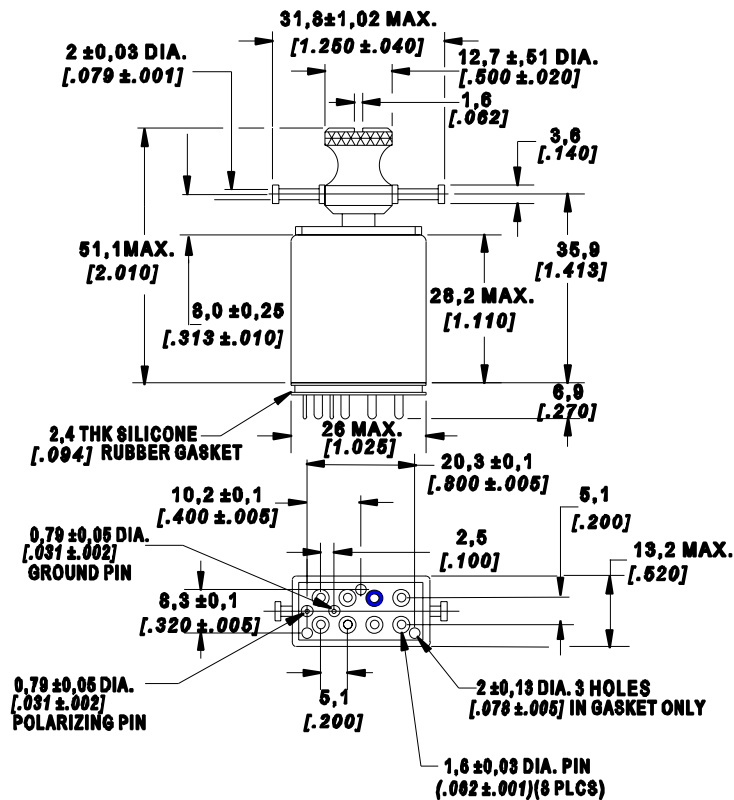
EA210 (AC)

(AC CONFIGURATION)
NOTE: MOUNTING STYLE 6 WITHOUT GND PIN

■ Mounting & Terminal Styles

DIMENSIONS IN MM (IN.)
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS ± 0.25 (.010)

THESE TRACK MOUNT RELAYS TO BE USED WITH BRACKET ASSY AND TRACKS MEETING THE REQUIREMENTS OF MIL-PRF-12883. SEE MIL-PRF-12883/50 FOR SOCKET INFORMATION AND MIL-PRF-12883/49 FOR TRACK INFORMATION



E/EA/ES210

MOUNTING STYLE: 4

TERMINAL STYLE: M

[GOLD PLATED HEADER & TERMINALS]

Mounting & Terminal Styles

DIMENSIONS ARE IN MM (IN.)
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS $\pm 0,25$ [.010]

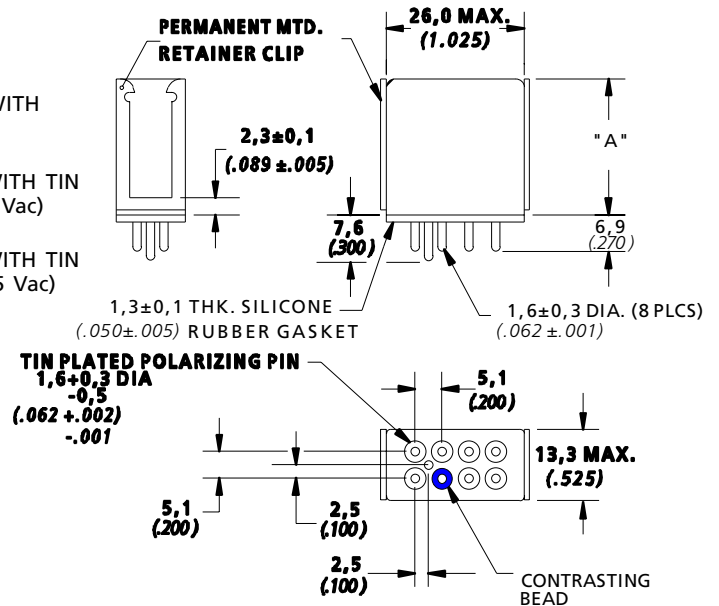
E/EA/ES 210 / 215

MOUNTING STYLE: 6

TERMINAL STYLE: M: GOLD PLATED TERMINALS WITH TIN PLATED POLARIZING PIN

F: GOLD PLATED TERMINALS WITH TIN PLATED POLARIZING PIN (28 Vac)

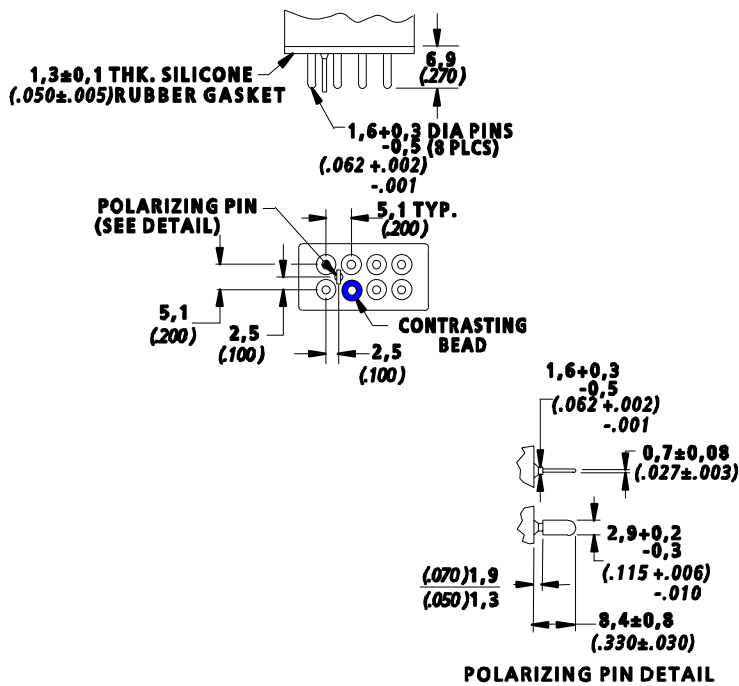
G: GOLD PLATED TERMINALS WITH TIN PLATED POLARIZING PIN (115 Vac)



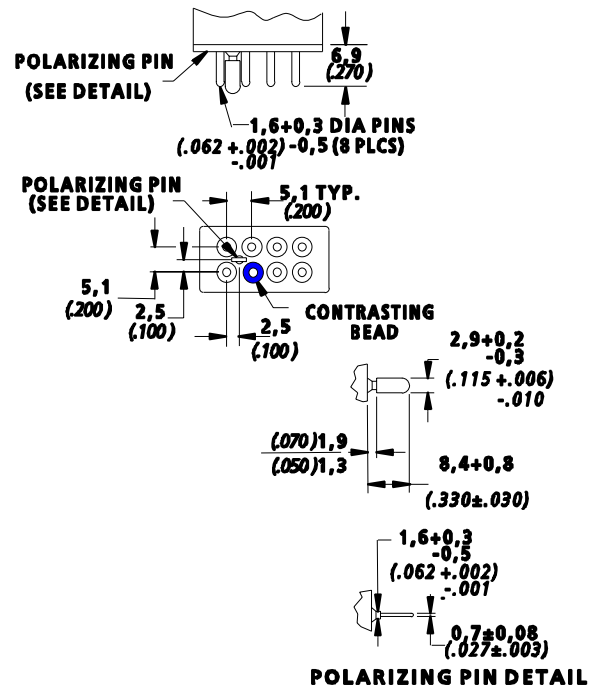
"A" Dimension:

DC Coil (Terminal Style "M"): 25.7 (1.010)

AC Coil (Terminal Styles "F" and "G"): 28.6 (1.125)



STYLE F: PLUG IN (28 Vac)



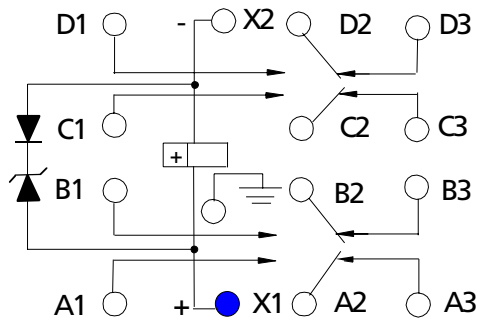
STYLE G: PLUG IN (115 Vac)

Coil Characteristics

COIL CODE	DC						AC	
	A	B	D	E	G	J	L	N
Nominal coil voltage	6	12	26,5	28	48	110	115-400 Hz	115-50/60/400 Hz
Maximum pick-up voltage at 25°C	3	6	13,5	14	24	55	75	75
Maximum pick-up voltage at 125°C	3,9	7,7	18	18,7	31	70	95	95
Minimum drop-out voltage at -70° C	2	5	1,2	1,5	2	5	5	5
Coil resistance (ohms ± 10% at 25° C)	18	70	290	290	955	5000	-	-
Maximum coil transient suppression (where applicable) VDC	-42	-42	-42	-42	-100	-180	-	-

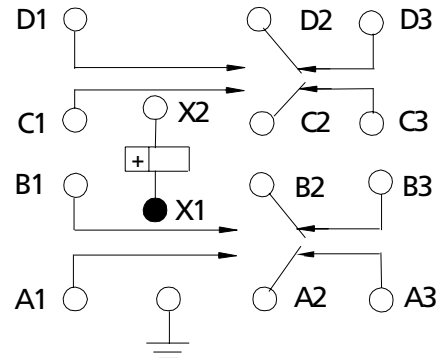
OTHER VOLTAGES AVAILABLE FROM FACTORY ON REQUEST

Circuit Diagram



ES410

INTERNAL VOLTAGE SUPPRESSOR
NOTE: MOUNTING STYLE 6 HAS NO GND PIN

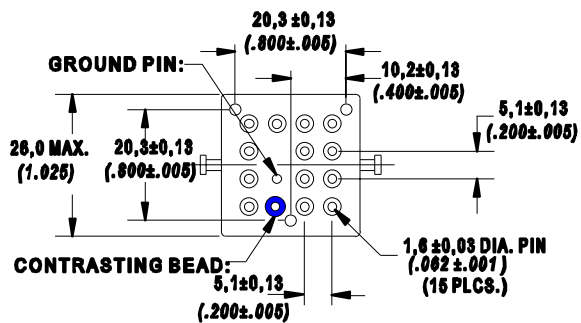
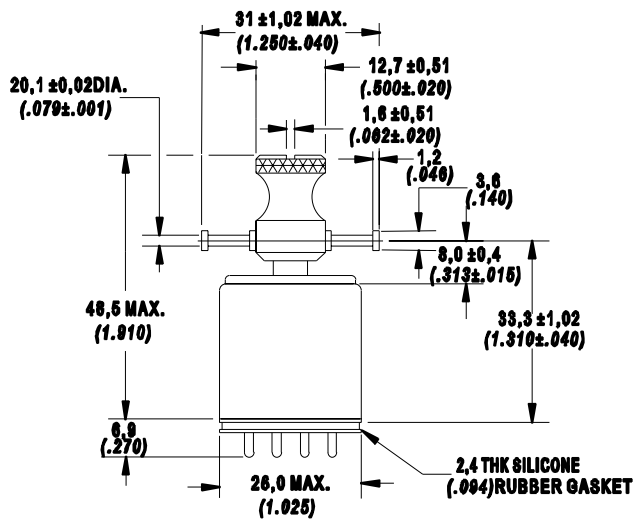


EA410 (AC)

NOTE: MOUNTING STYLE 6 HAS NO GND PIN

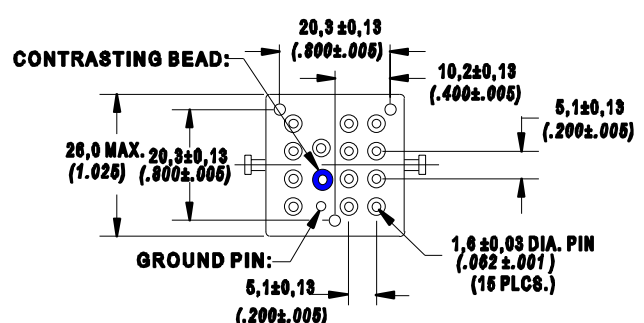
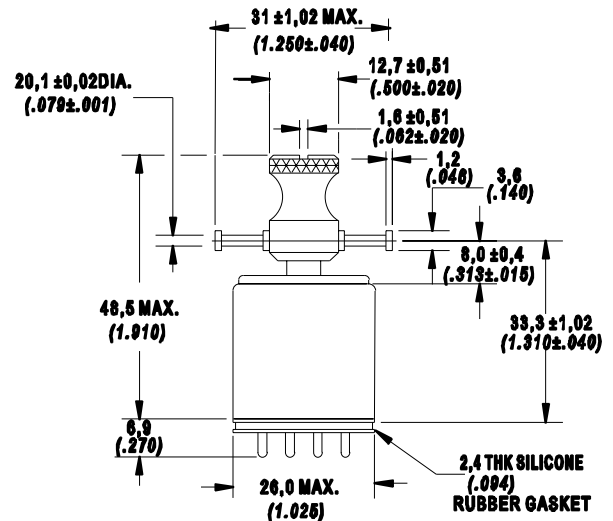
■ Mounting & Terminal Styles

DIMENSIONS ARE IN MM (IN.)
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ES410
MOUNTING STYLE: 4

TERMINAL STYLE: M
[GOLD PLATED HEADER & TERMINALS (DC)]

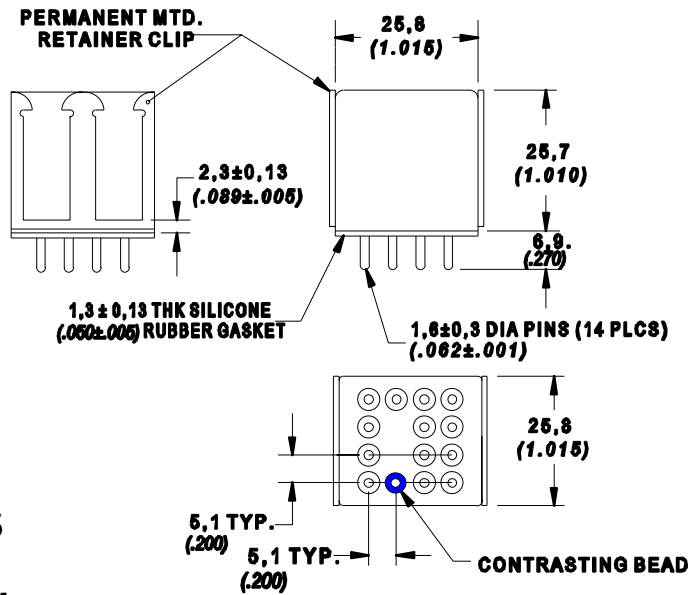


EA410
MOUNTING STYLE: 4

TERMINAL STYLE: K
[GOLD PLATED HEADER & TERMINALS (AC)]

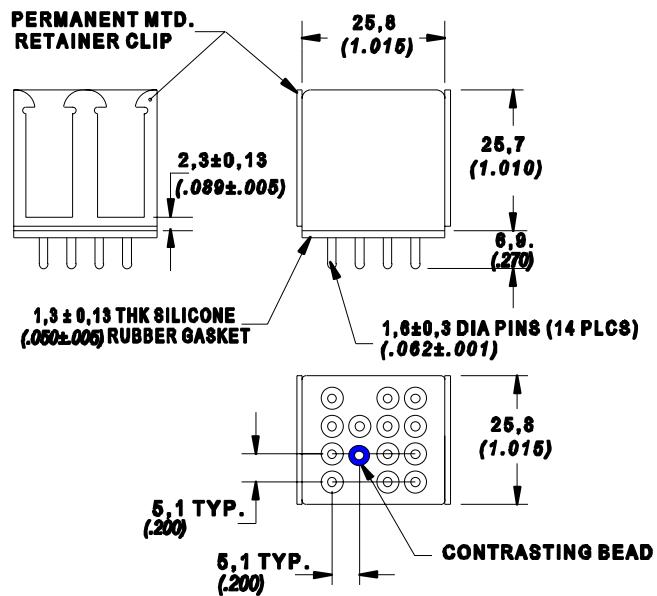
Mounting styles

DIMENSIONS ARE IN MM (IN.)
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS ± 0.25 (.010)



ES410
MOUNTING STYLE: 6

TERMINAL STYLE: M
[GOLD PLATED (DC)]



EA410
MOUNTING STYLE: 6

TERMINAL STYLE: K
[GOLD PLATED (AC)]