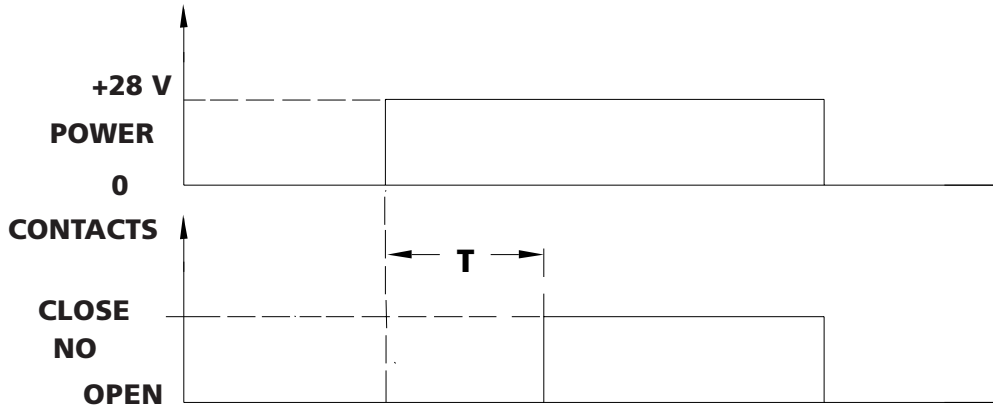
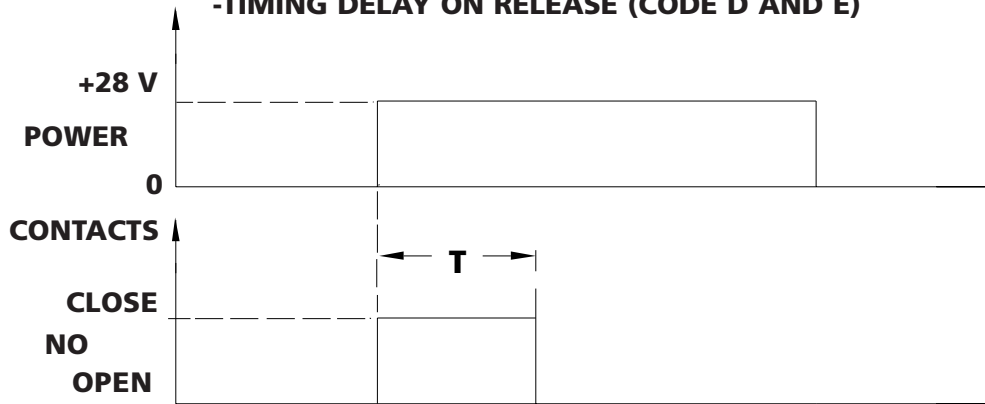


PRODUCT	DESCRIPTION	PAGES
REB210/REBM210 Mil	2PDT 10 AMPS	
REB410/REBM410MIL	4PDT 10 AMPS	
REB325	3PDT 25 AMPS	

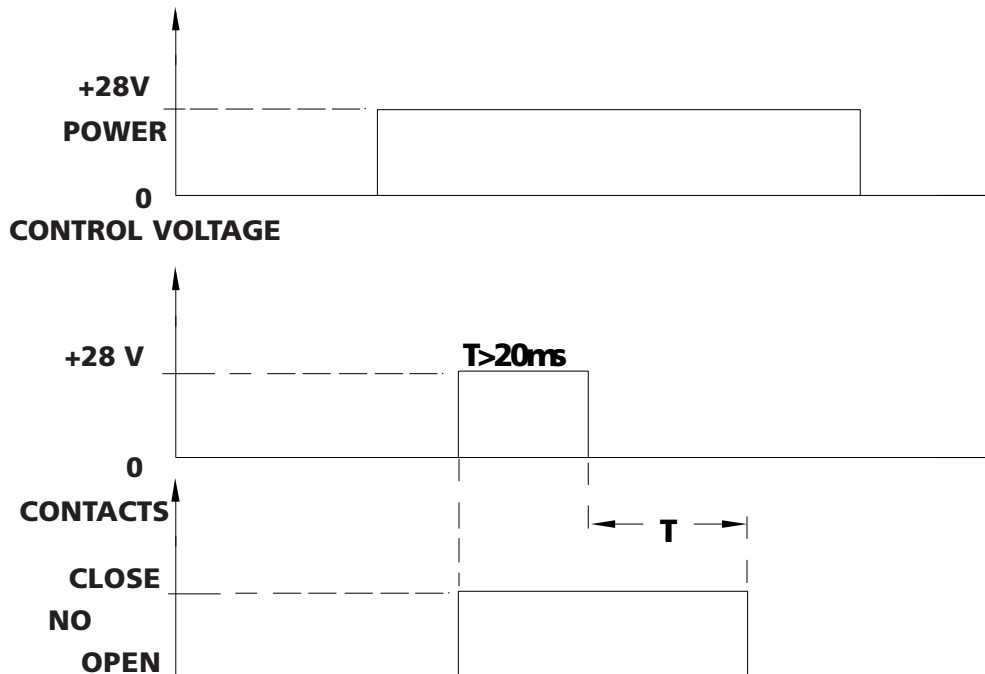
-TIMING DELAY ON OPERATE (CODE A AND B)



-TIMING DELAY ON RELEASE (CODE D AND E)



-TIMING DELAY ON RELEASE WITH POSITIVE CONTROL (CODE J AND L)



- THE REB210 TIME DELAY RELAY HAS A 2PDT CONTACT ARRANGEMENT AND IS RATED FOR 10 AMPS.
- HERMETICALLY SEALED, NON-CORROSIVE
- FIXED AND ADJUSTABLE TIME DELAY DESIGN:
- TIME DELAY FROM 0.1 TO 500 SECONDS
- TIMING ACCURACY OF ±3%, ±5% AND ±10% OVER SPECIFIED TEMPERATURE RANGE AVAILABLE
- MATING SOCKETS AVAILABLE

General characteristics

REB210

No. of poles	2 Form C
Volume	16.4 cm ³ [1 in ³]
Mass	59 grams [1.13 lb. Max]
Mechanical Life	400,000 cycles

Switching characteristics

Contact rating	Type of load (High level)	cycles x 10 ³	28 Vdc		115 Vac
					400 Hz 1 phase
	Resistive	100	10 amps	10 amps	10 amps
	Inductive	20	8 amps	8 amps	8 amps
	Motor	100	4 amps	4 amps	4 amps
	Lamp	100	2 amps	2 amps	2 amps
	Overload current	N/A	40 amps	60 amps	60 amps
	Rupture current	N/A	50 amps	80 amps	80 amps

Environmental characteristics

Temperature Range	-55°C to +125°C
Vibration (Sinusoidal)	30 g 10-3000 Hz
Shock, any axis	100 g 6 ms
Seal	Hermetic (1 x 10 ⁻⁸ atm cm ³ /s)

Electrical characteristics

Contact voltage drop (@ Rated resistive load)	150 mV Max.
- Initial	175 mV Max.
- After guaranteed life	
Dielectric strength @ sea level	Coil to Case 1000 Vrms All other points 1000 Vrms
Insulation Resistance	100 Megohms min. @ 500 Vdc
- Initial @ 60 Hz	
Reference Military Specifications	MIL-PRF-83726

REBC 210 A-1000 CB

RELAY TYPE

REB TIME DELAY

MODEL

210: 2 PDT 10 AMPS

TYPE OF OPERATION

- A: DELAY ON OPERATE, FIXED
- B: DELAY ON OPERATE, ADJUSTABLE WITH EXTERNAL RESISTOR
- D: DELAY ON RELEASE, FIXED
- E: DELAY ON RELEASE, ADJUSTABLE WITH EXTERNAL RESISTOR
- J: DELAY ON RELEASE, FIXED WITH POSITIVE CONTROL
- L: DELAY ON RELEASE, ADJUSTABLE WITH EXTERNAL RESISTOR AND POSITIVE CONTROL

TIMING CODE

- 1000 = 100ms = 0.1s
- 1001 = 1000ms = 1s
- 1002 = 10000 ms = 10s
- 1003 = 100000 ms = 100s

ACCURACY/ TEMP. RANGE

CLASSES	ACCURACY	TEMP. RANGE
B:	±10%	-40°C TO +85°C
C:	±10%	-55°C TO +125°C
E:	± 5%	-40°C TO +85°C
F:	± 5%	-55°C TO +125°C
H:	± 3%	-55°C TO +85°C

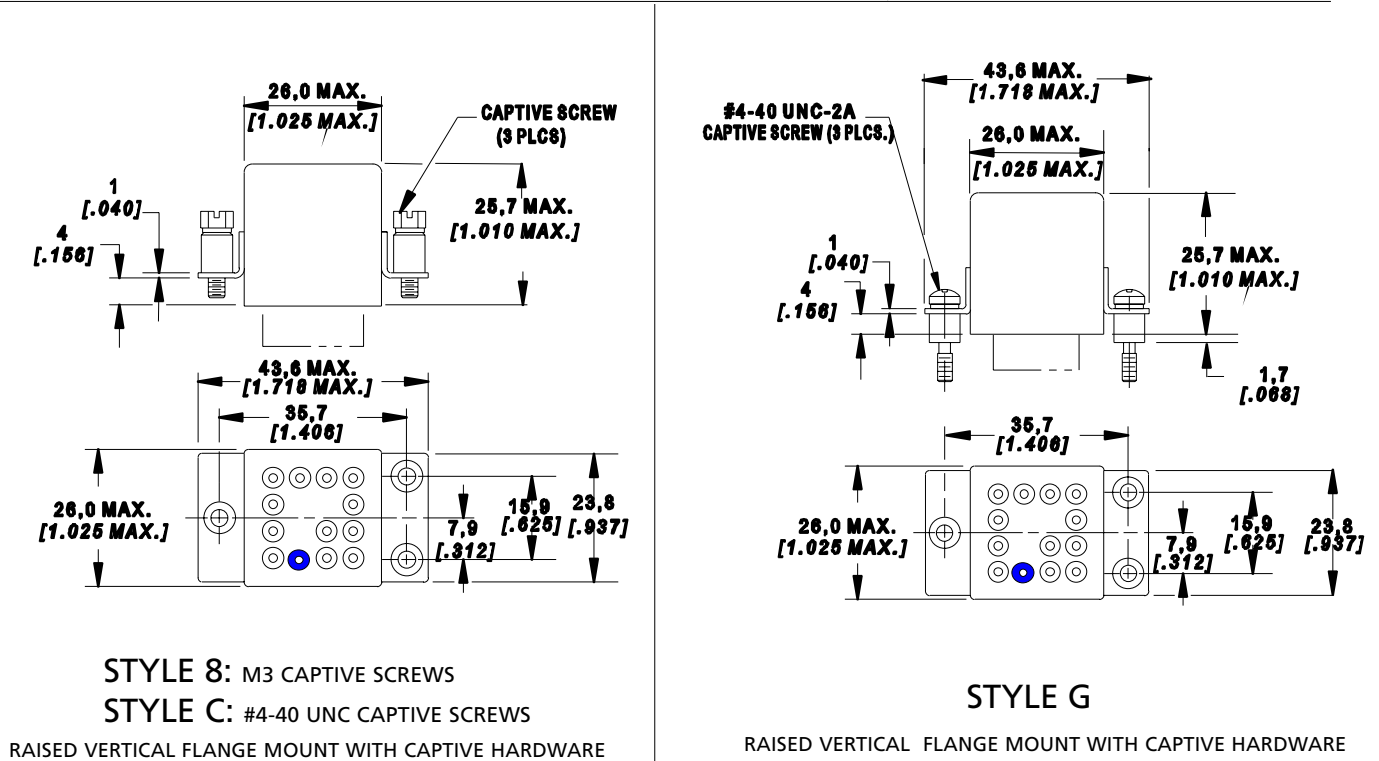
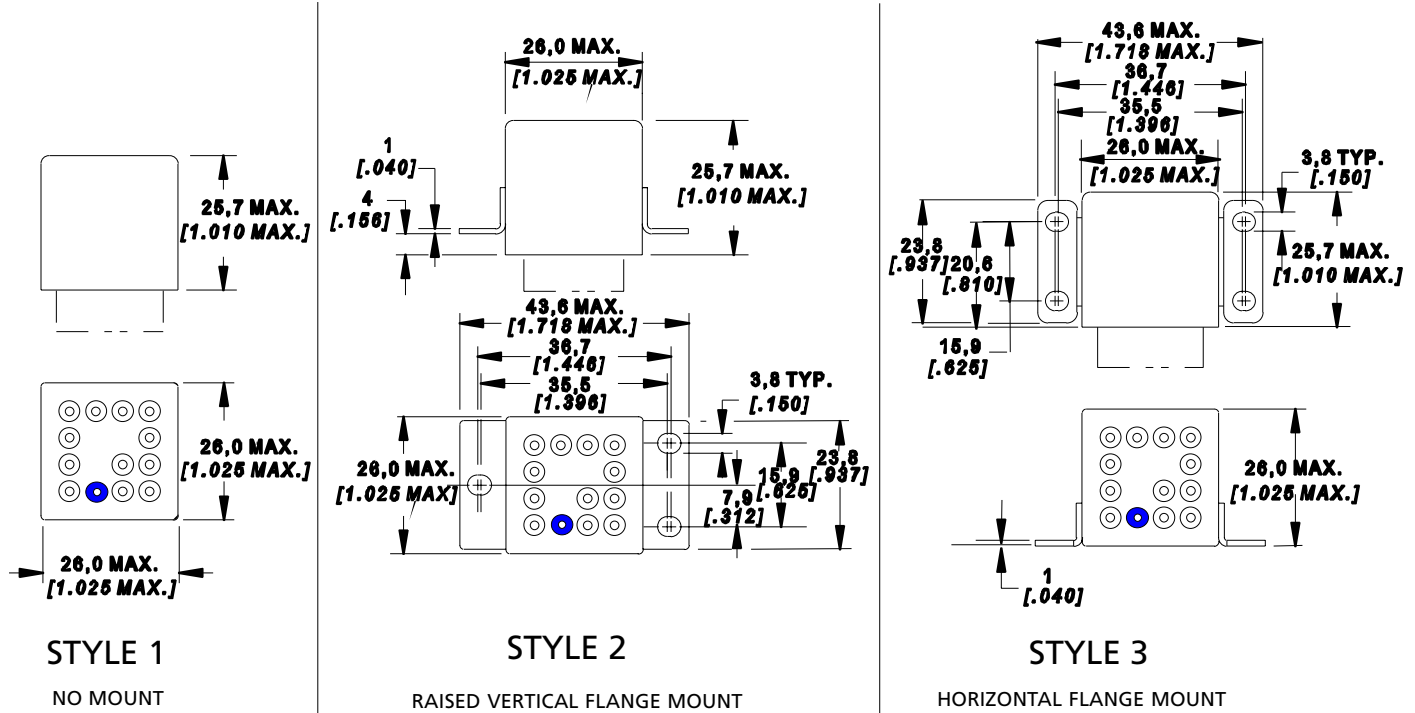
MOUNTING & TERMINAL STYLES

CODE	MOUNTING STYLE	TERMINAL STYLE
A:	1	E
B:	2	B
F:	2	A
G:	3	A
K:	8	B
M:	C	B
N:	G	B
P:	1	A

REB210 Technical Characteristics

Mounting styles

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

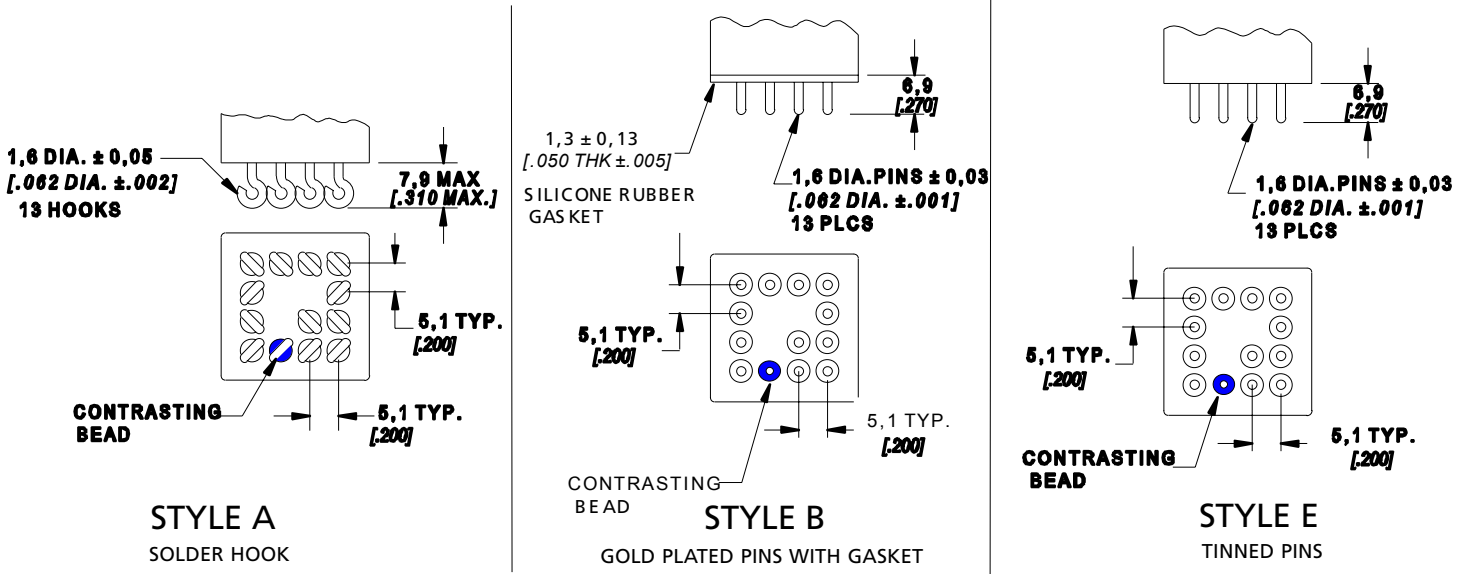


REB210 Technical Characteristics

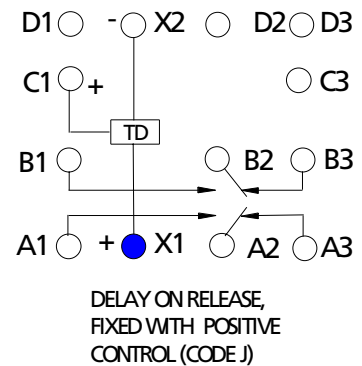
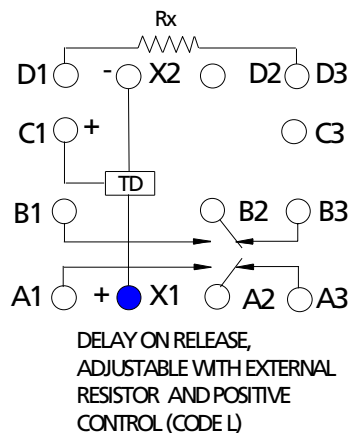
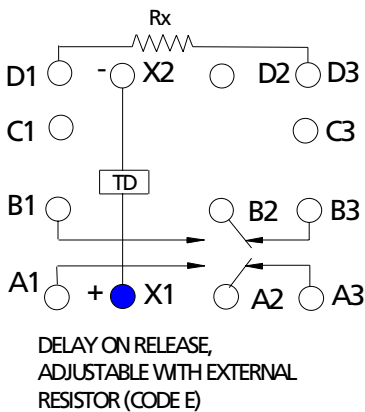
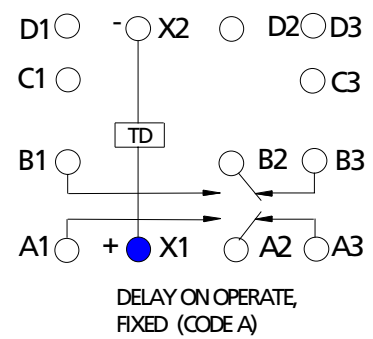
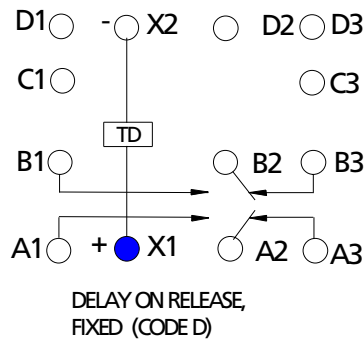
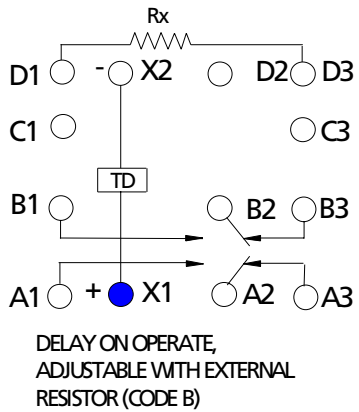


Termination styles

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



Circuit Diagram





A COMPANY OF STPI GROUP

REBM210

Military Specified

Meets MIL-PRF-83726

General Characteristics

No. of Poles:	2 Form C (2PDT)
Dimensions:	1.025" x 1.025" x 1.010" (26.0 x 26.0 x 25.7)mm
Weight:	0.13 lb. (59 grams)

Switching Characteristics

Time Delay:	Select from 0.1 to 500 seconds ±10%, add ±10 ms for timing
Timing Accuracy:	less than 1 sec
Recycle Time:	50 ms. Max
Mechanical Life:	400,000 Cycles

Environmental Characteristics

Temperature Range:	-55°C to +125°C
Vibration (Sinusoidal)	30g 10-3,000 Hz
Shock (any axis)	100g, 6 ms
Seal:	Hermetic (1x10 ⁻⁸ atm cm ³ /s)

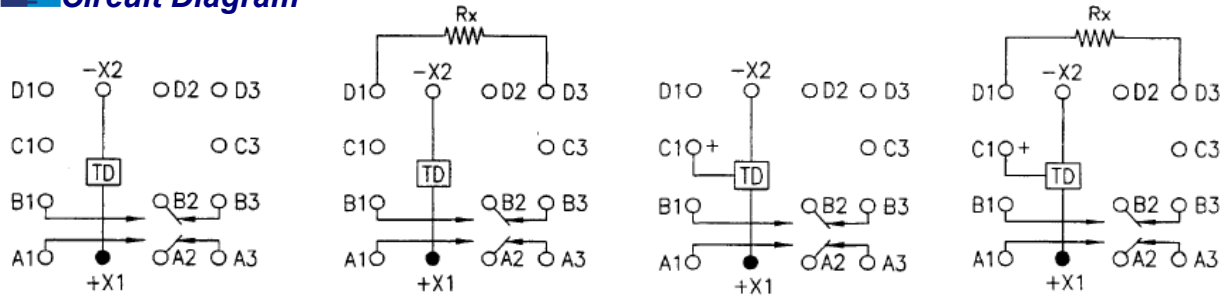
Electrical Characteristics

Contact Voltage Drop (at 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:	1,000 Vrms	1,000 Vrms
Insulation Resistance (Initial):	1,000 MΩ Min, @ 500 Vdc	
Back EMF (Transient Voltage):	50 Vdc Max.	
Input Voltage Range:	20 – 30 Vdc	
Operating Current (X1 – X2):	150 mA Max. @ 25°C	
Control Voltage (where applicable):	20 – 30 Vdc	
Control Current (where applicable):	15 mA Max. @ 25°C	

Contact Rating (Amps)

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

Circuit Diagram



Delay on Operate
Fixed
Timing Code "A"

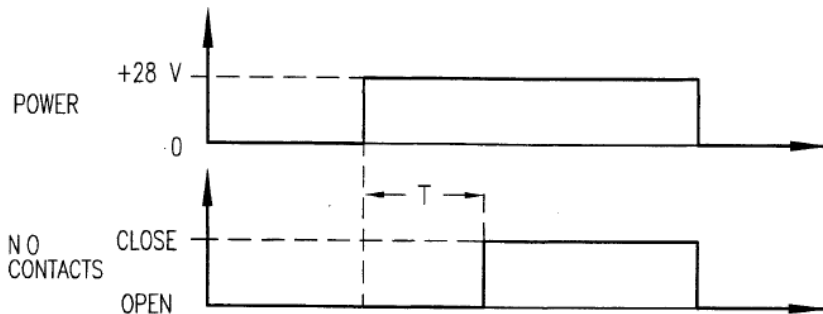
Delay on Operate
Adj. w/Ext. Resistor
Timing Code "B"

Delay on Release
w/Pos. Control
Fixed
Timing Code "J"

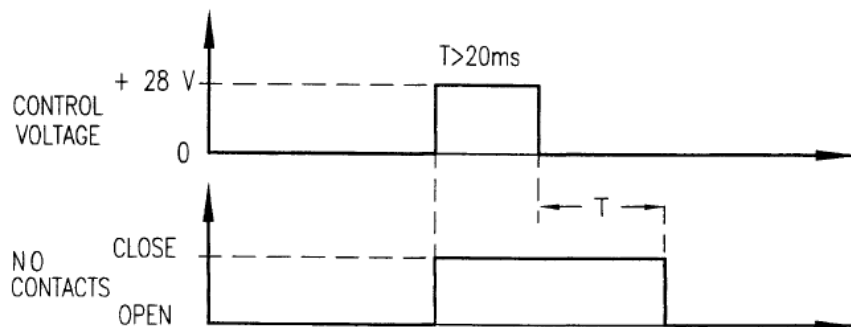
Delay on Release
w/Pos. Control
Adj. w/Ext. Resistor
Timing Code "L"

Timing Action

Delay on Operate
Timing Code "A" & "B"



Delay on Release with
Positive Control
Timing Code "J" & "L"



Timing Code

The first three digits are significant; the fourth is the number of zeros to follow the first three digits. The time is expressed in milliseconds and converted to seconds. (See examples)

Examples:

REBM210A-1001CB = 100 ms x 10 = 1000 ms = 1 second

REBM210A-9002CF = 900 ms x 100 = 90000 ms = 90 seconds

External Resistor

Only applicable for REBM210B and REBM210L

$$R_{EXT} = ((T_1/T_0) - 1) * 100k$$

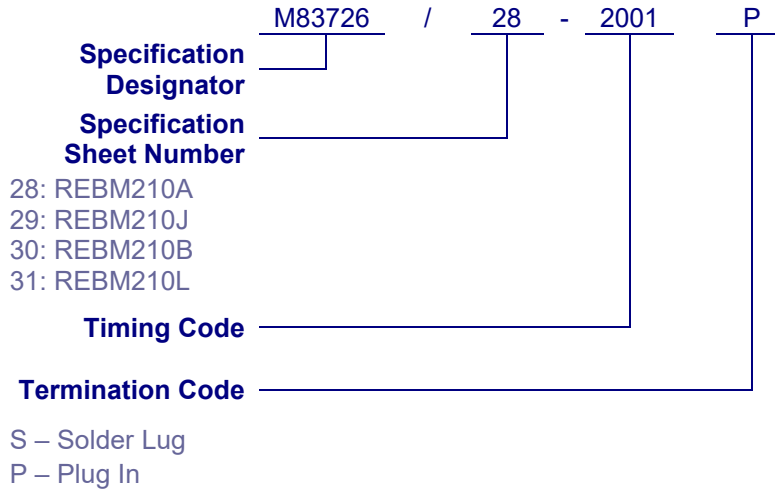
Where:

T_0 = Minimum time (1/10th of nominal timing from code)

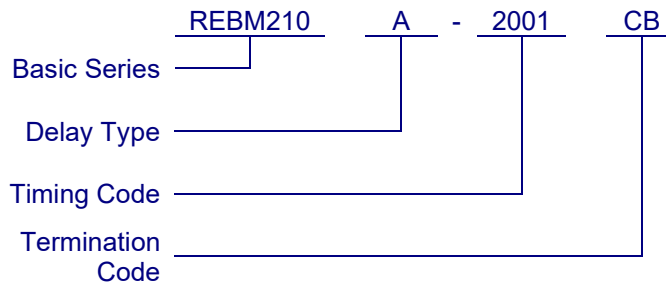
T_1 = Required time

$T_1 < 10 * T_0$

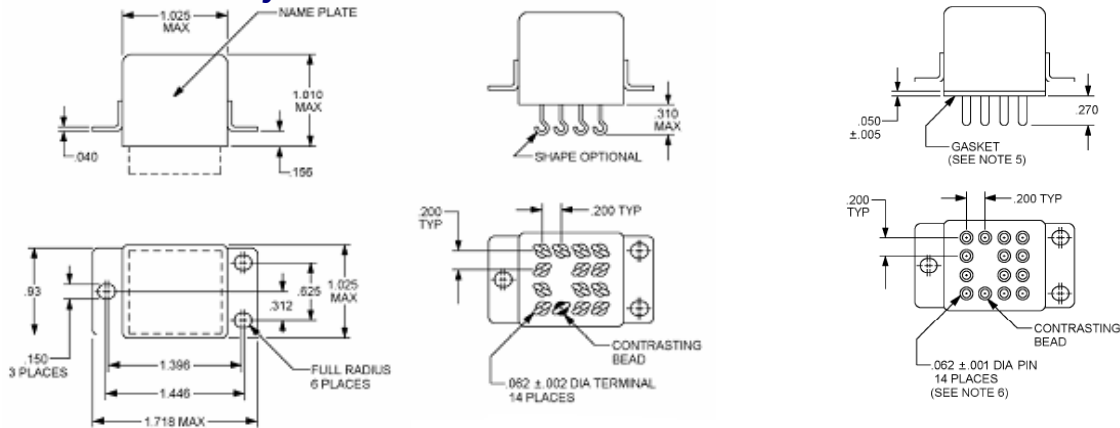
Military Part Numbering



QPL Part Numbering



Termination Styles



Termination Code CF:
Solder Lug

Termination Code CB:
Plug in

REB410 Characteristics

- THE REB TIME DELAY RELAY HAS A 4PDT CONTACT ARRANGEMENT AND IS RATED FOR 10 AMPS.
- HERMETICALLY SEALED, NON-CORROSIVE
- FIXED TIME DESIGN: DETERMINED AT FACTORY
- TIME DELAY FROM 0.1 TO 900 SECONDS
- TIMING ACCURACY OF ±3%, ±5% AND ±10% OVER SPECIFIED TEMPERATURE RANGE AVAILABLE
- MATING SOCKETS AVAILABLE



REB410

General characteristics

No. of poles	4 Form C
Volume	26.2 cm ³ [1.6 in ³]
Mass	86.2 grams [1.19 lb. Max]
Mechanical Life	400,000 cycles

Switching characteristics

Contact rating	Type of load (High level)	cycles x 10 ³	28 Vdc	115 Vac 400 Hz 1 phase
	Resistive		100	10 amps
Inductive		20	8 amps	8 amps
Motor		100	4 amps	4 amps
Lamp		100	2 amps	2 amps
Overload current		N/A	40 amps	60 amps
Rupture current		N/A	50 amps	80 amps

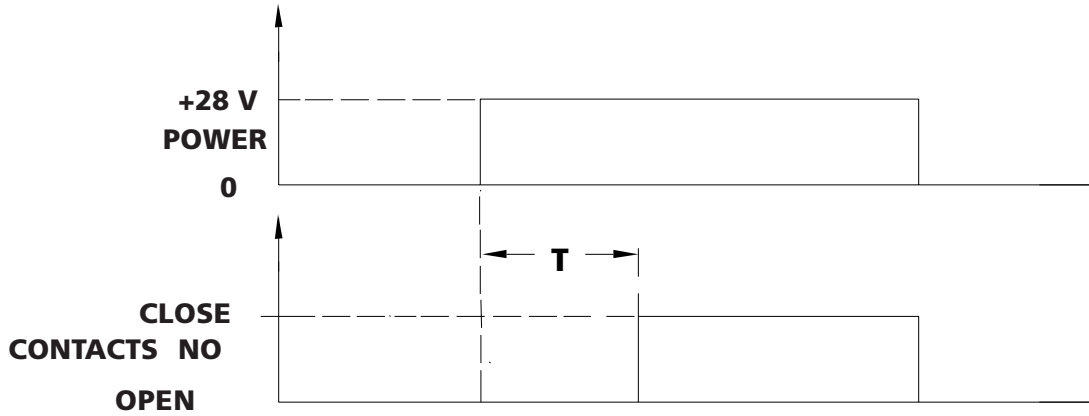
Environmental characteristics

Temperature Range	-55°C to +125°C
Vibration (Sinusoidal)	30 g 10-3000 Hz
Shock, any axis	100 g 6 ms
Seal	Hermetic (1 x 10 ⁻⁸ atm cm ³ /s)

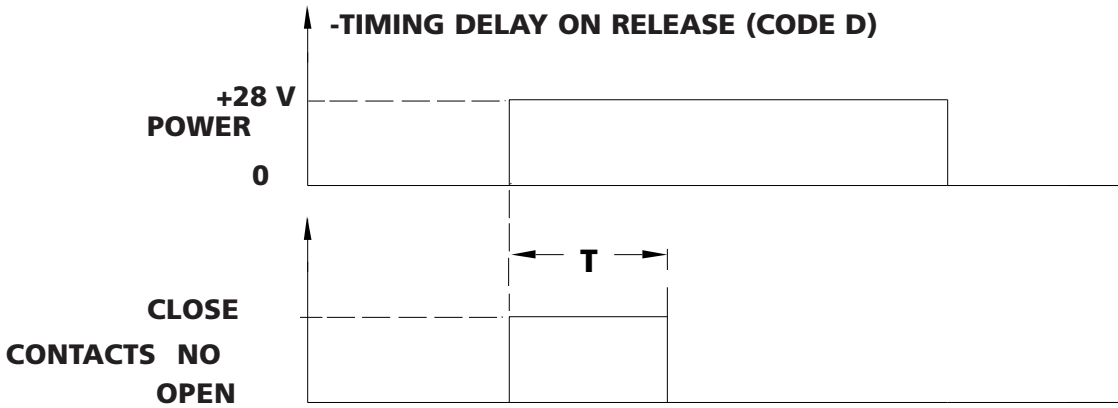
Electrical characteristics

Contact voltage drop (@ Rated resistive load)					
- Initial	15.0 mV Max.				
- After guaranteed life	17.5 mV Max.				
Dielectric strength @ sea level					
- Initial @ 60 Hz	<table border="1"> <tr> <th>Coil to Case</th> <th>All other points</th> </tr> <tr> <td>1000 Vrms</td> <td>1000 Vrms</td> </tr> </table>	Coil to Case	All other points	1000 Vrms	1000 Vrms
Coil to Case	All other points				
1000 Vrms	1000 Vrms				
Insulation Resistance	1000 Megohms min. @ 500 Vdc				
Reference Military Specifications	MIL-PRF-83726				

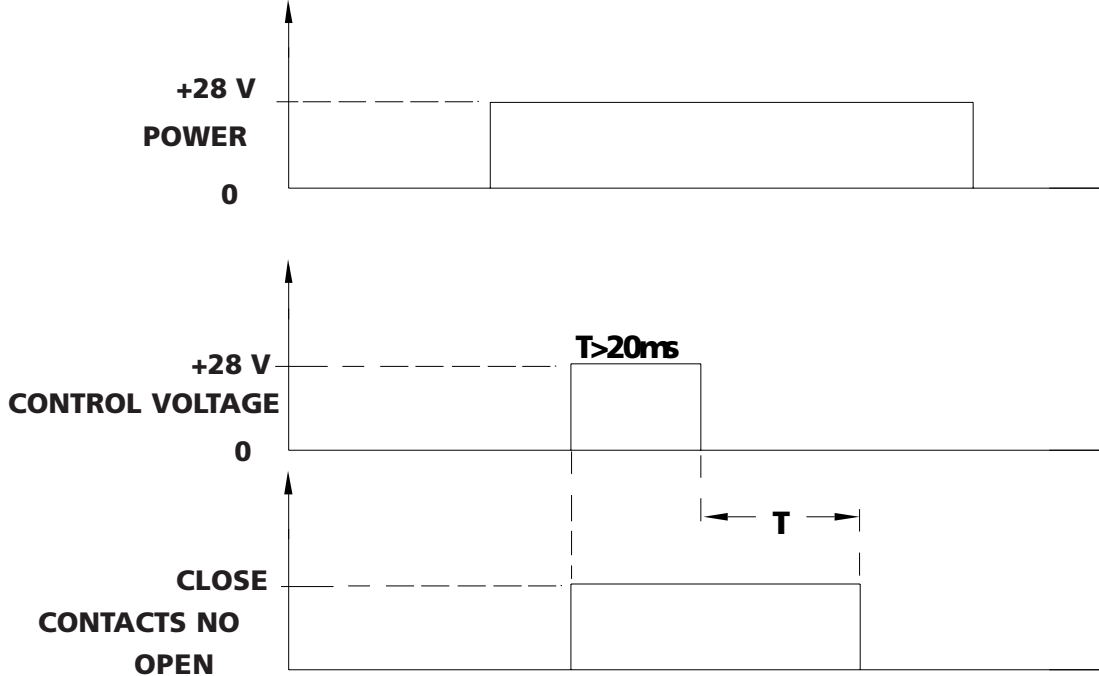
-TIMING DELAY ON OPERATE (CODE A)



-TIMING DELAY ON RELEASE (CODE D)



-TIMING DELAY ON RELEASE WITH POSITIVE CONTROL (CODE J)



REBC 410 A-1000 C B

RELAY TYPE

REB TIME DELAY

RELAY AMPS

410: 10 AMPS, 28 Vdc RESISTIVE
4 POLE DBL THROW

TYPE OF OPERATION

- A: DELAY ON OPERATE, FIXED
- D: DELAY ON RELEASED, FIXED
- J: DELAY ON RELEASED, FIXED WITH POSITIVE CONTROL

TIMING CODE

- 1000 = 100ms = 0.1s
- 1001 = 1000ms = 1s
- 1002 = 10000 ms = 10s
- 1003 = 100000 ms = 100s

ACCURACY/TEMP. RANGE

CLASSES	ACCURACY	TEMP. RANGE
B:	±10%	-40°C TO +85°C
C:	±10%	-55°C TO +125°C
E:	±5%	-40°C TO +85°C
F:	±5%	-55°C TO +125°C
H:	±3 %	-55°C TO +85°C

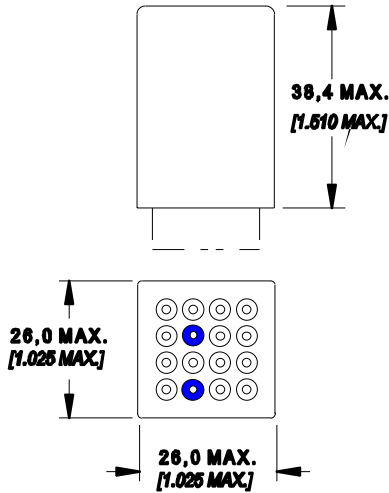
MOUNTING & TERMINAL STYLES

A:	1	E
B:	2	B
F:	2	A
K:	8	B
M:	C	B
N:	G	B
P:	1	A

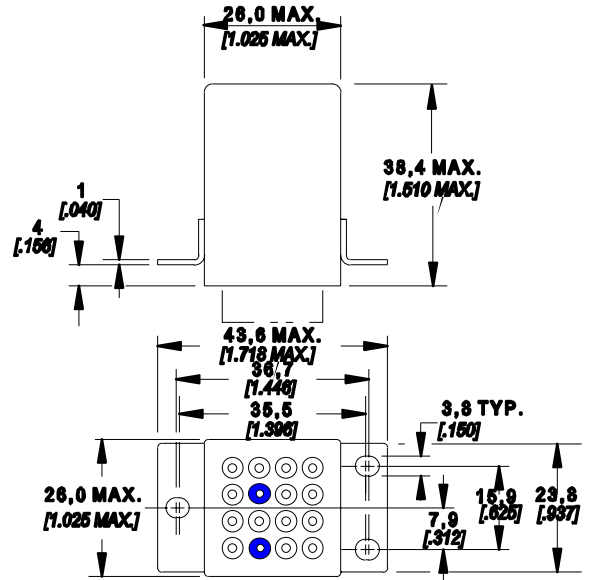
REB410 Technical Characteristics

Mounting styles

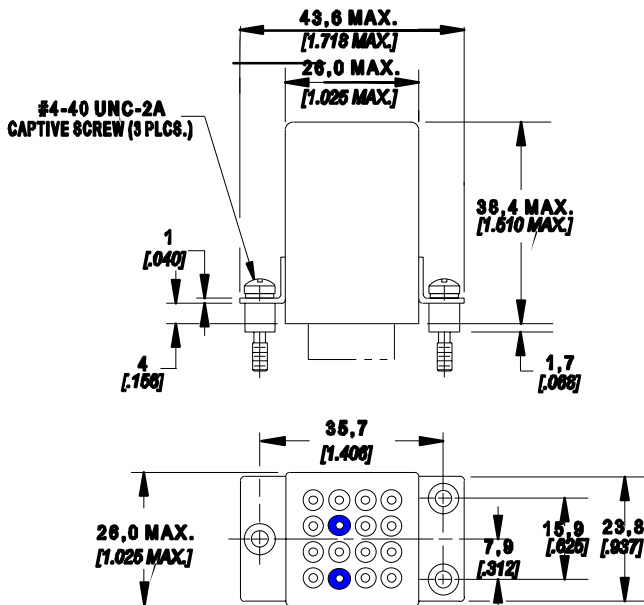
DIMENSIONS ARE IN MM (IN.)
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS $\pm 0,25$ [.010]



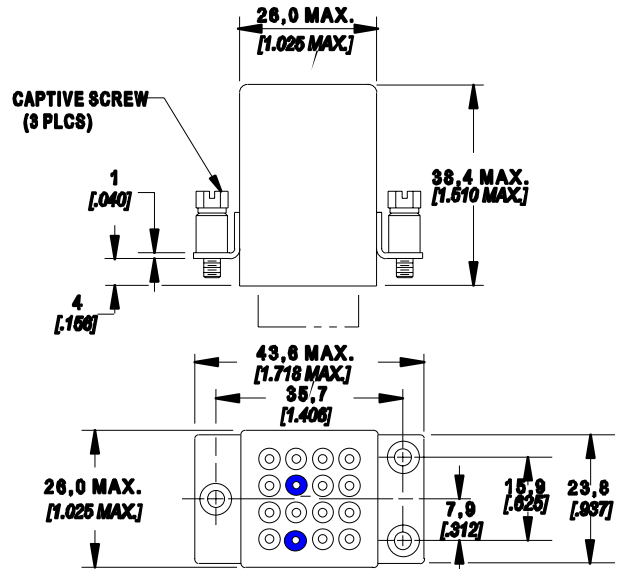
STYLE 1
NO MOUNT



STYLE 2
RAISED VERTICAL FLANGE MOUNT



STYLE G
RAISED VERTICAL FLANGE MOUNT WITH CAPTIVE HARDWARE

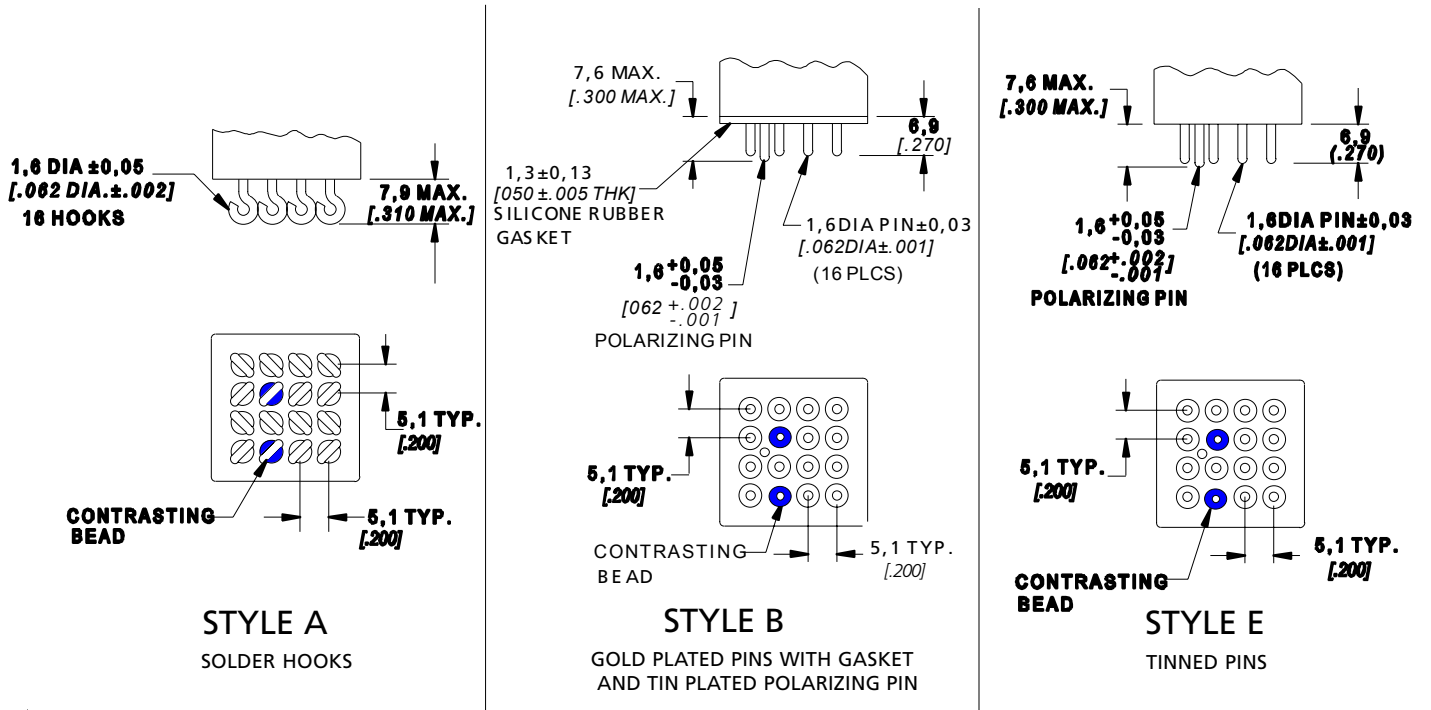


STYLE 8: M3 CAPTIVE SCREWS
STYLE C: #4-40 UNC CAPTIVE SCREWS
RAISED VERTICAL FLANGE MOUNT WITH CAPTIVE HARDWARE

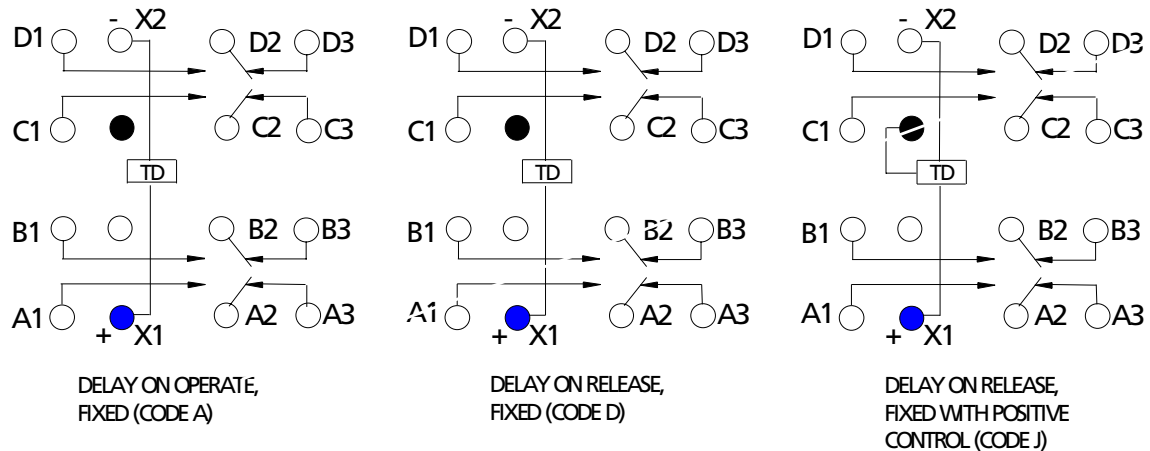
REB410 Technical Characteristics

Termination styles

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



Circuit Diagram





A COMPANY OF STPI GROUP

REBM410

Military Specified

Meets MIL-PRF-83726

General Characteristics

No. of Poles:	4 Form C (4PDT)
Dimensions:	1.025" x 1.025" x 1.51" (26.0 x 26.0 x 38.4)mm
Weight:	0.19 lb. (86.2 grams)

Switching Characteristics

Time Delay:	Select from 0.1 to 600 seconds ±10%, add ±10 ms for timing less than 1 sec
Timing Accuracy:	
Recycle Time:	50 ms. Max
Mechanical Life:	400,000 Cycles

Environmental Characteristics

Temperature Range:	-55°C to +125°C
Vibration (Sinusoidal)	30g 10-3,000 Hz
Shock (any axis)	100g, 6 ms
Seal:	Hermetic (1x10 ⁻⁸ atm cm ³ /s)

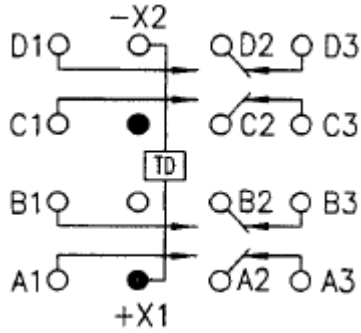
Electrical Characteristics

Contact Voltage Drop (at 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:	1,000 Vrms	1,000 Vrms
Insulation Resistance (Initial):	1,000 MΩ Min, @ 500 Vdc	
Back EMF (Transient Voltage):	50 Vdc Max.	
Input Voltage Range:	20 – 30 Vdc	
Operating Current (X1 – X2):	150 mA Max. @ 25°C	
Control Voltage (where applicable):	20 – 30 Vdc	
Control Current (where applicable):	15 mA Max. @ 25°C	

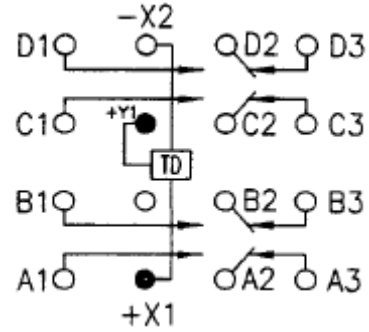
Contact Rating (Amps)

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

Circuit Diagram



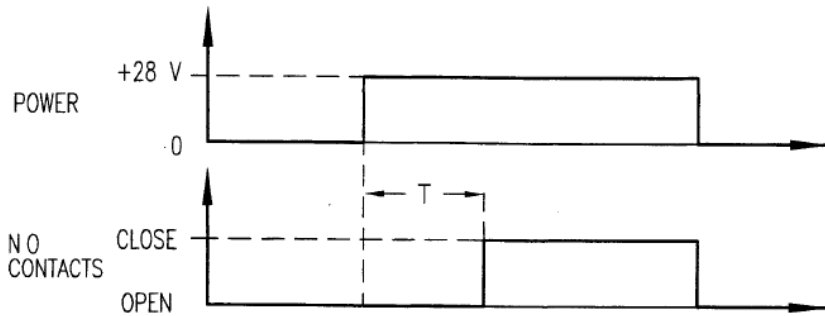
Delay on Operate
Fixed
Timing Code "A"



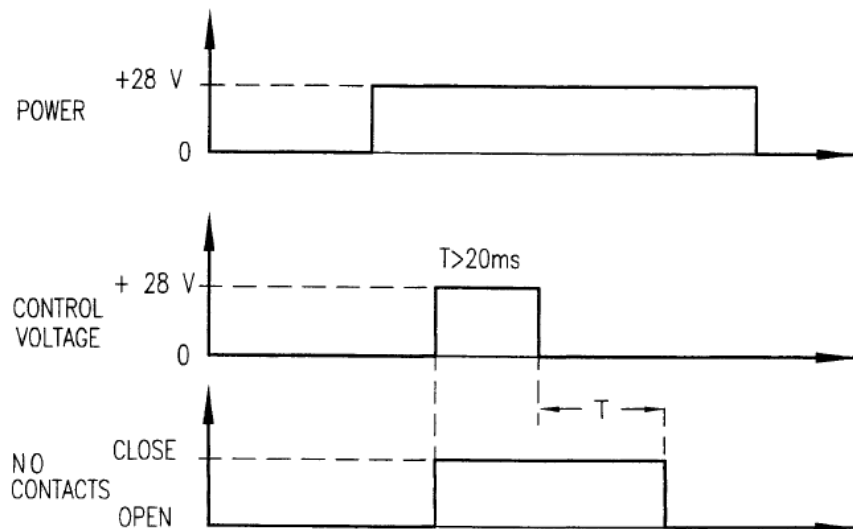
Delay on Release
w/Pos. Control
Fixed
Timing Code "J"

Timing Action

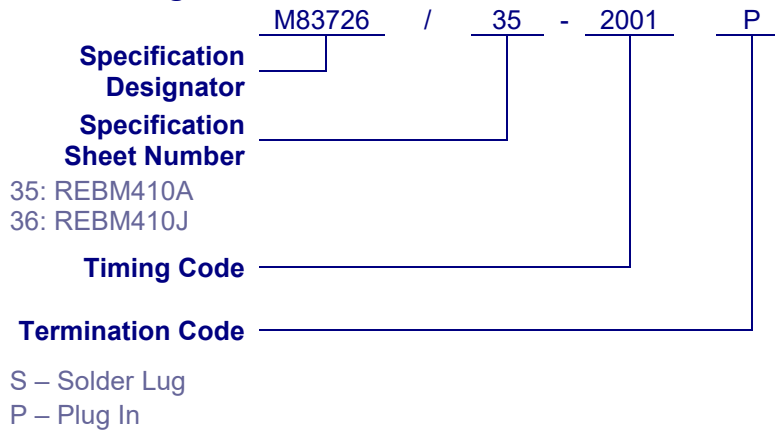
Delay on Operate
Timing Code "A"



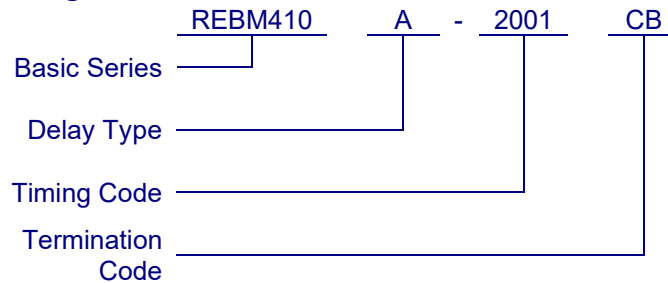
Delay on Release with
Positive Control
Timing Code "J"



Military Part Numbering



QPL Part Numbering



Timing Code

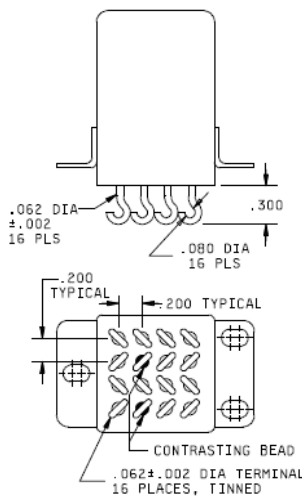
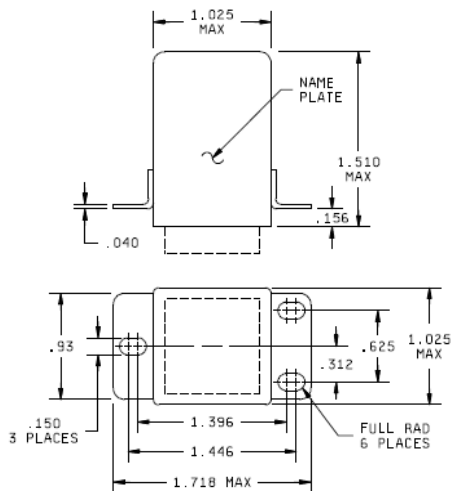
The first three digits are significant; the fourth is the number of zeros to follow the first three digits. The time is expressed in milliseconds and converted to seconds. (See examples)

Examples:

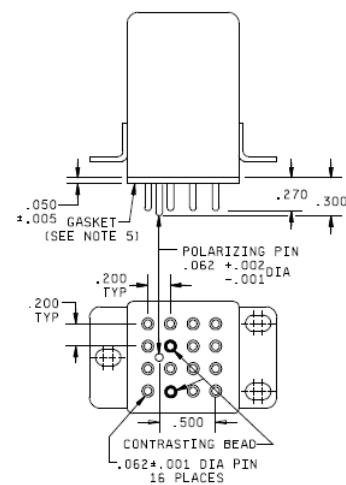
REBM410A-1001CB = 100 ms x 10 = 1000 ms = 1 second

REBM410A-9002CF = 900 ms x 100 = 90000 ms = 90 seconds

Termination Styles



Termination Code CF:
Solder Lug



Termination Code CB:
Plug in

- THE REB TIME DELAY RELAY HAS A 3PDT CONTACT ARRANGEMENT AND IS RATED FOR 25 AMPS.
- HERMETICALLY SEALED, NON-CORROSIVE
- TIME DELAY FROM 0.1 TO 500 SECONDS
- TIMING ACCURACY OF ±3%, ±5% AND ±10% OVER SPECIFIED TEMPERATURE RANGE AVAILABLE
- MATING SOCKETS AVAILABLE

■ General characteristics

REB325

No. of poles	3 Form C
Volume	26.2 cm ³ [1.6 in ³]
Mass	99.8 grams [.22 lb. Max]
Mechanical Life	400,000 cycles

■ Switching characteristics

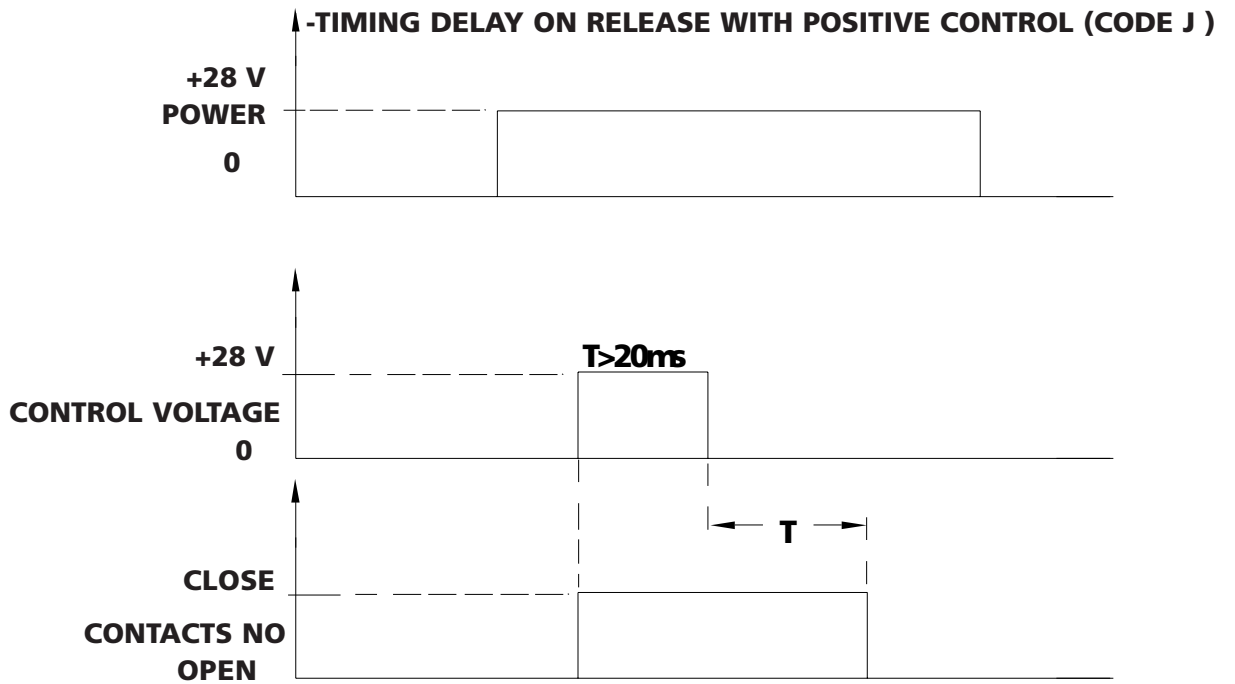
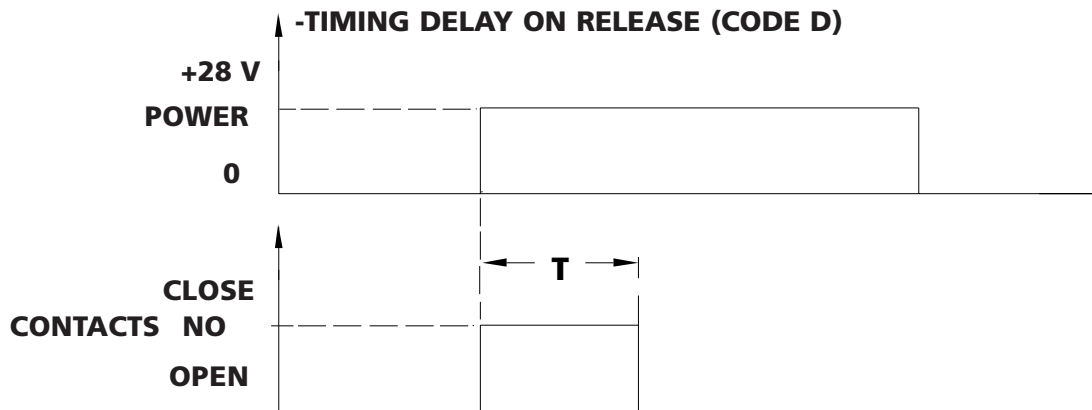
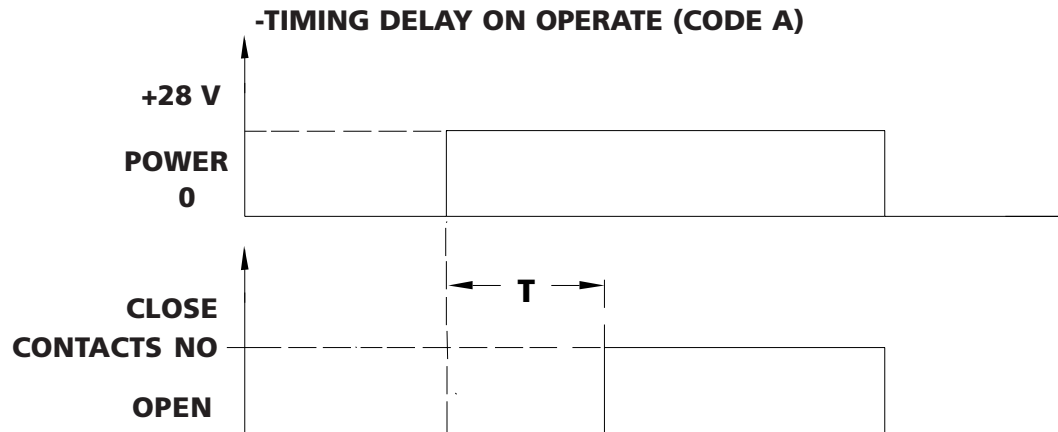
Contact rating	Type of load (High level)	cycles x 10 ³	28 Vdc	115 Vac 400 Hz 1 phase
	Resistive		50	25 amps
Inductive		10	12 amps	15 amps
Motor		50	10 amps	10 amps
Lamp		50	5 amps	5 amps
Overload current		N/A	50 amps	80 amps
Rupture current		N/A	60 amps	100 amps

■ Environmental characteristics

Temperature Range	-55°C to +125°C
Vibration (Sinusoidal)	30 g 10-3000 Hz
Shock, any axis	100 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	1000 Vrms 1000 Vrms
Insulation Resistance	1000 Megohms min. @ 500 Vdc
Reference Military Specifications	MIL-PRF-83726



REBC 325 A- 1000 C B

RELAY TYPE

REB TIME DELAY

MODEL

325: 3PDT 25 AMPS

TYPE OF OPERATION

- A: DELAY ON OPERATE, FIXED
- D: DELAY ON RELEASED, FIXED
- J: DELAY ON RELEASE, FIXED WITH POSITIVE CONTROL

TIMING CODE

- 1000 = 100ms = 0.1s
- 1001 = 1000ms = 1s
- 1002 = 10000 ms = 10s
- 1003 = 100000 ms = 100s

ACCURACY/TEMP. RANGE

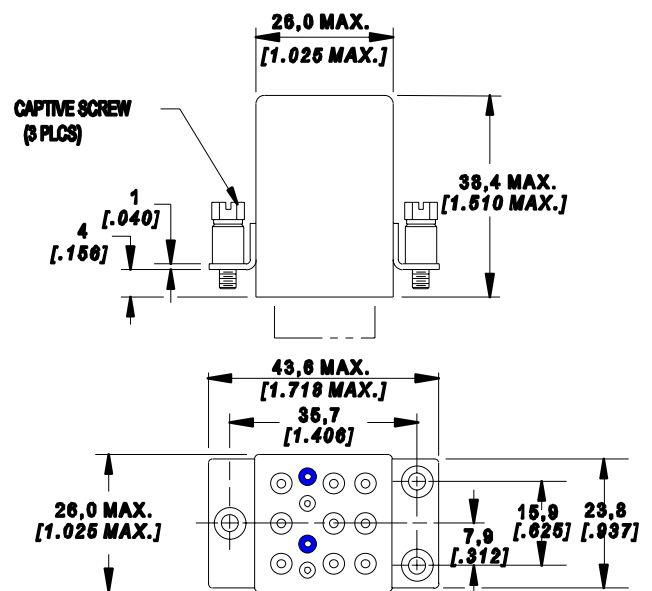
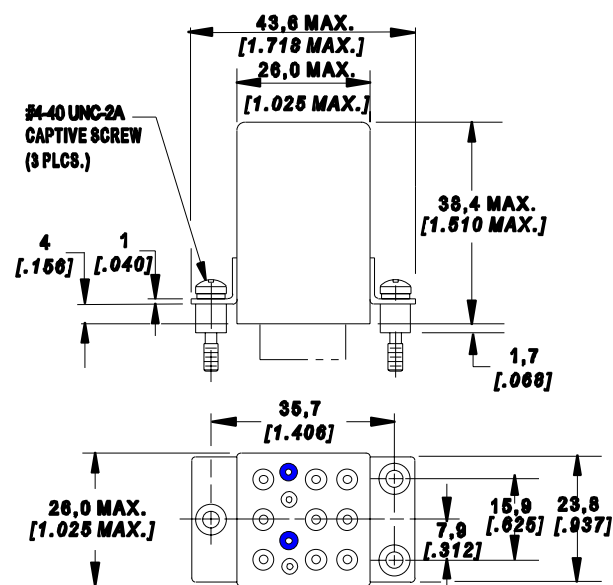
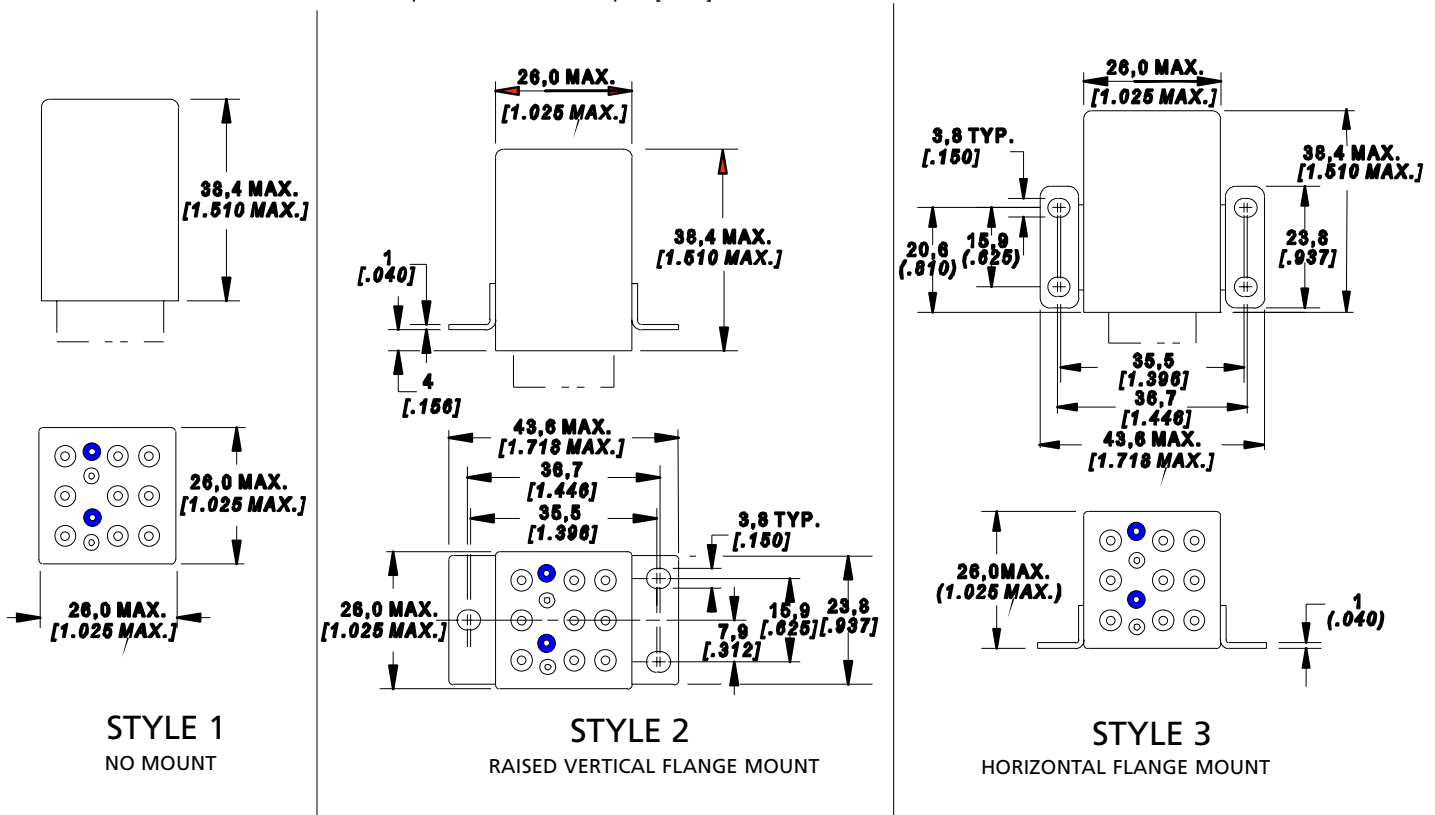
CLASSES	ACCURACY	TEMP. RANGE
B:	±10%	-40°C TO +85°C
C:	±10%	-55°C TO +125°C
E:	±5%	-40°C TO +85°C
F:	±5%	-55°C TO +125°C
H:	±3%	-40°C TO +85°C

MOUNTING & TERMINAL STYLES

A:	1	E
B:	2	B
F:	2	A
G:	3	A
K:	8	B
M:	C	B
N:	G	B
P:	1	A

Mounting styles

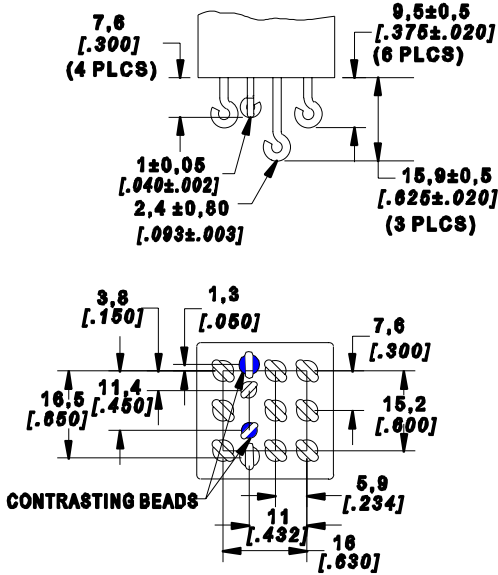
DIMENSIONS ARE IN MM (IN.)
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS $\pm 0,25$ [.010]



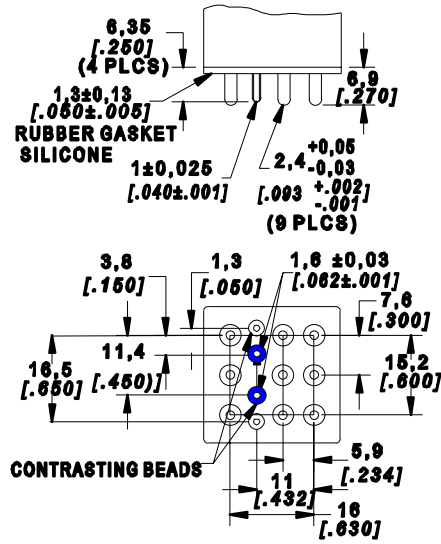
STYLE 8: M3 CAPTIVE SCREWS
STYLE C: #4-40 UNC CAPTIVE SCREWS
RAISED VERTICAL FLANGE MOUNT WITH CAPTIVE HARDWARE

Termination styles

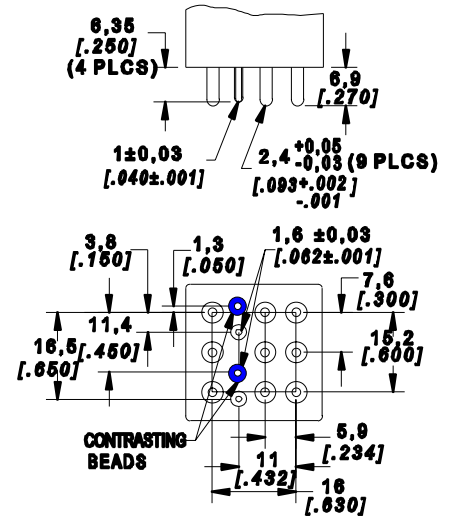
DIMENSIONS ARE IN MM (IN.)
UNLESS OTHERWISE SPECIFIED, TOLERANCE IS $\pm 0,25$ [.010]



STYLE A
SOLDER HOOKS

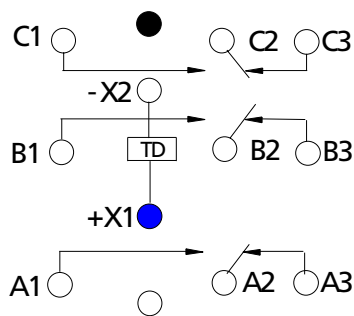


STYLE B
GOLD PLATED PINS WITH GASKET

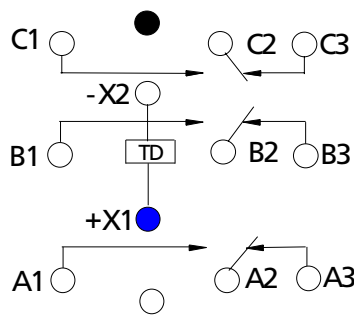


STYLE E
TINNED PINS

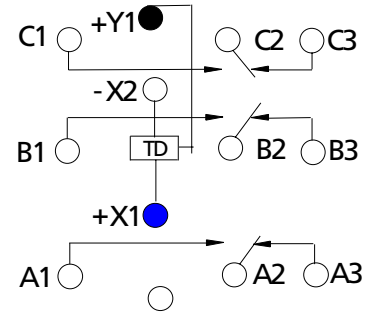
Circuit Diagram



DELAY ON OPERATE,
FIXED (CODE A)



DELAY ON RELEASE,
FIXED (CODE D)



DELAY ON RELEASE,
FIXED WITH POSITIVE
CONTROL (CODE J)