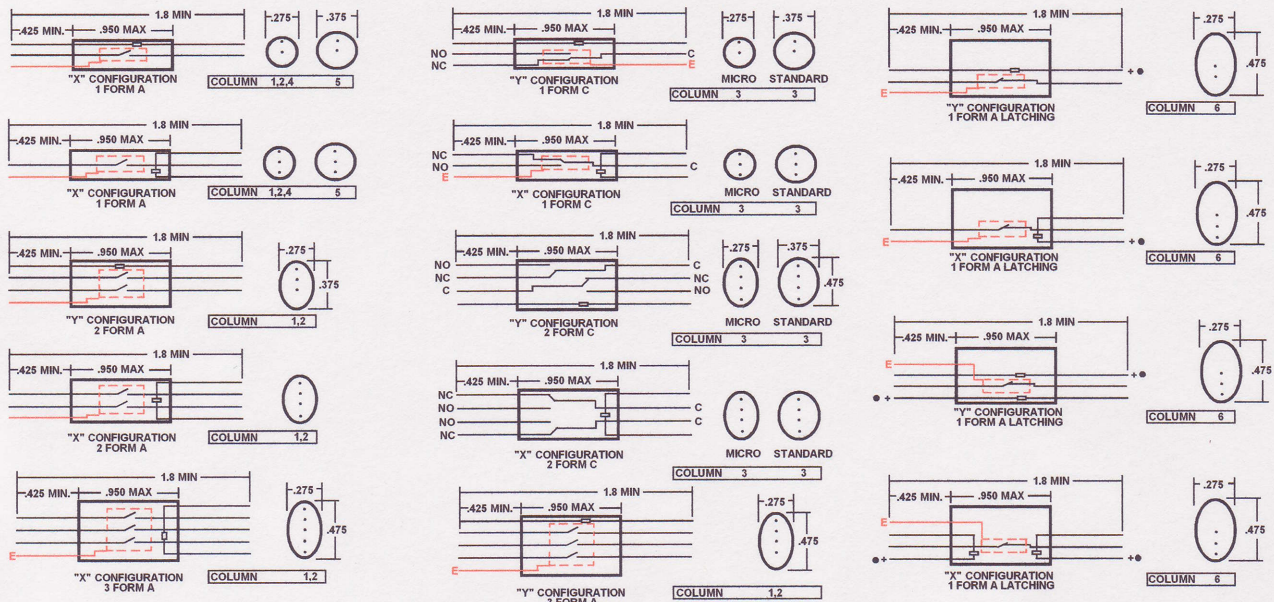


# REED RELAYS SERIES 40, SERIES B1A-TEL

**SERIES 40**

## ELECTRICAL AND OPERATING CHARACTERISTICS



ALL RELAYS HAVE STEEL JACKET MAGNETIC SHIELD  
 MERCURY WETTED RELAYS (COLUMN 5) ARE POSITION SENSITIVE  
 MOUNTING POSITION VERTICLE +/- 30 DEGREES

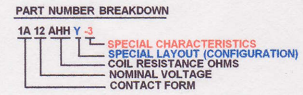
**SPECIAL NOTES**  
 TERMINAL DIAMETER .022 +/- .005  
 TERMINAL SPACING .100 +/- .025

COLUMN NUMBER			1		2		3		4		5		6	
			1 FORM A	2 FORM A	1 FORM A	2 FORM A	1 FORM C	1 FORM C	1 FORM A	1 FORM A	1 FORM B (SPST)	1 FORM B (SPST)		
			3 FORM A	SPST	3 FORM A	SPST	2 FORM C	2 FORM C	SPST	MERCURY	LATCHING		LATCHING	
CONTACT RATINGS			HI-REL		COMMERCIAL		STANDARD		MICRO		HI-VOLTAGE		1 OR 2 COILS	
RELAY TYPES			HI-REL		COMMERCIAL		STANDARD		MICRO		HI-VOLTAGE		MERCURY	
VOLTAGE SWITCHING	MAXIMUM	VDC	250	250	250	250	200	200	1000	250	200	200	200	200
CURRENT SWITCHING	MAXIMUM	AMP	1.5	1.0	1.0	1.0	500 MA	500 MA	750MA	2	500MA	10	500MA	50
POWER SWITCHING	MAXIMUM	WATTS	30	20	20	20	10	10	15	50	10	10	10	10
CURRENT CARRY	MAXIMUM	AMP	2	2	2	2	1	1	2	2	2	2	2	2
CAPACITANCE	TYPICAL	PF	.2	.2	.2	.2	.8	.8	.2	.2	.2	.2	.2	.2
CONTACT RESISTANCE	TYPICAL	OHMS	.100	.100	.100	.100	.100	.100	.100	.100	.100	.100	.100	.100
OPERATE TIME	TYPICAL	MS	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5	.5
RELEASE TIME	TYPICAL	MS	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25	.25
TEMPERATURE	DURATION	DEGREES	-55C TO +85 C		-55C TO +85 C		-55C TO +85 C		-55C TO +85 C		-55C TO +85 C		-55C TO +85 C	
SHOCK	DURATION	200G @ 11 MS	200G @ 11 MS		200G @ 11 MS		200G @ 11 MS		200G @ 11 MS		200G @ 11 MS		200G @ 11 MS	
VIBRATION	DURATION	50G @ 0-2000HZ	50G @ 0-2000HZ		50G @ 0-2000HZ		50G @ 0-2000HZ		50G @ 0-2000HZ		50G @ 0-2000HZ		50G @ 0-2000HZ	
INSULATION RESISTANCE	MINIMUM	20 DEGREES C	10 TO THE 10TH		10 TO THE 10TH		10 TO THE 10TH		10 TO THE 12TH		10 TO THE 12TH		10 TO THE 9TH	

NOMINAL COIL VOLTAGE	PICKUP VDC MAXIMUM @ 20 DEG. C	DROPOUT VDC MINIMUM @ 20 DEG. C	PART NUMBER / COIL RESISTANCE (OHMS)																			
			1 FORM A (SPST)	OHMS	2 FORM A (SPST)	OHMS	3 FORM A (SPST)	OHMS	1 FORM C (SPDT)	OHMS	2 FORM C (DPDT)	OHMS	1 FORM A (SPST) HV	OHMS	1 FORM A (SPST) MW	OHMS	1 FORM B (SPST) LATCHING	OHMS	1 FORM B (SPST) LATCHING	OHMS		
5	3.75	0.5	1A5A(-X)	100	2A5A(-X)	75	3A5A(-X)	50	1C5A	100	2C5A	75	1A5AHV	100	1AHC5A	100	1A5AL	100	1A5AL	100	1A5AL	50
12	9.0	1.2	1A12A(-X)	400	2A12A(-X)	300	3A12A(-X)	200	1C12A	200	2C12A	150	1A12AHV	400	1AHC12A	400	1B12A	400	1B12A	400	1B12A	50
24	18.0	2.4	1A24A(-X)	700	2A24A(-X)	500	3A24A(-X)	350	1C24A	400	2C24A	300	1A24AHV	700	1AHC24A	700	1B24A	700	1B24A	700	1B24A	1000

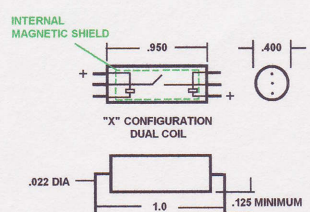
**SPECIAL CHARACTERISTICS**  
 (Y) - WHEN "Y" OPTION LAYOUT IS REQUIRED ADD "Y" TO THE PART # AFTER THE "A" (E.G. 1A5AYH)  
 (-1) - PLASTIC INSULATING SLEEVE  
 (-2) - LEADS BENT TO 1.00 INCH CENTERS & INSULATION SLEEVING  
 (-3) - LEADS BENT TO 1.0 INCH CENTERS FOR PRINTED CIRCUIT BOARD INSERTION

**GLOSSARY**  
 (E) ELECTROSTATIC SHIELD  
 (-X) HI-RELIABILITY REED RELAY  
 (HV) HIGH VOLTAGE REED RELAY  
 (HG) MERCURY WETTED REED RELAY  
 (L) SINGLE COIL LATCHING REED RELAY  
 (2L) DUAL COIL LATCHING REED RELAY  
 ● - POSITIVE LEAD IDENTIFICATION. LOCATED ON TOP OF RELAY  
 \* - NOT RECOMMENDED FOR CONTINUOUS DUTY CYCLE APPLICATIONS (24VDC)



**SERIES B1A-TEL**

## ELECTRICAL AND OPERATING CHARACTERISTICS



**GENERAL SPECIFICATIONS**

VOLTAGE (MAXIMUM SWITCHING)	200 VDC
VOLTAGE (MINIMUM BREAKDOWN)	300 VDC
CURRENT (MAXIMUM SWITCHING)	0.5 AMPS
CURRENT (MAXIMUM GATING)	1.0 AMPS
POWER (PURE RESISTIVE)	10 WATTS
CAPACITANCE (TYPICAL)	0.2 PF
CONTACT RESISTANCE (TYPICAL)	0.2 OHMS
OPERATE TIME (TYPICAL)	1.0 MS
LIFE (@ LOW LOAD, MINIMUM OPERATIONS)	100 X 10 TO TH 6TH
LIFE (@ RATED LOAD, MINIMUM OPERATIONS)	10 X 10 TO THE 6TH

**OPERATING CHARACTERISTICS**

NOMINAL CURRENT (CAN BE OPERATED @ 125 MAX)	20 MA DC
PICK UP CURRENT (MAXIMUM)	18 MA DC
DROPOUT CURRENT (MINIMUM)	6 MA DC
PICK UP & DROPOUT ARE MEASURED WITH BOTH COILS IN SERIES, AIDING EACH OTHER	
COIL RESISTANCE (EACH COIL)	19.8 OHMS MAXIMUM
EACH COIL, 50 OHMS MAXIMUM DIFFERENCE BETWEEN COILS, INDUCTANCE 4 MH EACH COIL MATCHED WITHIN .04 MH TO EACH OTHER	
OPERATING TEMPERATURE	-20 DEGREES C TO +85 DEGREES C
SHOCK	50G @ 11MS
INSULATION RESISTANCE (MINIMUM)	10 TO THE 9TH OHMS MINIMUM
VIBRATION	1000 @ 8-2000 HZ
COIL TO COIL BREAKDOWN VOLTAGE	1000 VDC
COIL TO CONTACT BREAKDOWN VOLTAGE	1500 VDC
LONGITUDINAL BALANCE (MINIMUM)	63 DB
200 HZ TO 3KHZ, 20 TO 100 MA	

NOTE: ALL SCHEMATICS ARE TOP VIEWS