VOLTAGE MONITOR/RELAYS

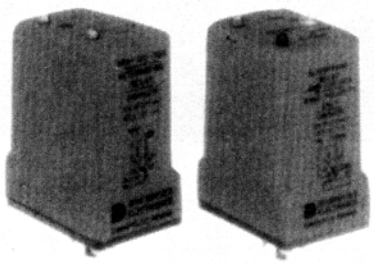
VBA SERIES Single Phase & DC Voltage Band Monitor/Relays

MODEL NUMBER	NOMINAL VOLTAGE	LOW LIMIT PICK UP	HIGH LIMIT PICK UP	HYSTERESIS VOLTAGE	ENCLOSURE STYLE
AC ADJUSTABLE					
VBA- 24-ALA	24 VAC	19- 24	24- 29	2	A
VBA-120-ALA	120 VAC	90-120	120-150	5	A
VBA-208-ALA	208 VAC	185-208	208-240	8	A
VBA-240-ALA	240 VAC	200-240	240-270	10	A
DC ADJUSTABLE					
VBA- 12-DLA	12 VDC	10- 12	12- 15	1	A
VBA- 24-DLA	24 VDC	19- 24	24- 29	1	A
VBA- 28-DLA	28 VDC	22- 28	28- 34	1	A
VBA- 48-DLA	48 VDC	38- 48	48- 58	2	A
VBA-110-DLA	110 VDC	85-110	110-135	5	A
AC FIXED					
VBA-120-AFN	120 VAC	105	135	0	N
VBA-220-AFN	220 VAC	195	245	0	N

The VBA series offers protection to single phase equipment that is required to operate between high and low voltage limits. When the monitored voltage is between the limits, the internal relay picks up. When the voltage goes above or below the preset limits, the relay drops out. This drop out trip point is lower than pick up on the low limit and higher than pick up on the high limit. The hysteresis in some models provides a differential between pick up and drop out. The ouptut relays are rated: Style A-DPDT, 10 amps @ 120 VAC, resistive; Style N-SPDT, 2.5 amps @ 120 VAC, resistive. The relay will pick up in 30 milliseconds and drop out in 0.5 seconds after fault. Power dissipation is approximately 3 watts. Enclosure styles A and N only.

Style A

Style N



ARA ARB

DUPLEXORS
(2-PUMP SYSTEM)

The ARA model features automatic alternations each time the control switch opens. The ARB model features the plus option of locking into one sequence. A three position switch permits the field selection of normal duplexing action, locking in the A-B sequence, or B-A sequence.

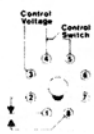
ARX-XXX-AXA

ALTERNATIONS
A = Automatic
B = Selectable

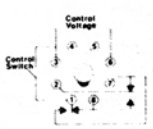
CONTROL VOLTAGE
24 = 24 Volts
120 = 120 Volts
240 = 240 Volts

OUTPUT CONFIGURATION
B = SPDT
C = DPDT (Cross-Wired)
D = DPDT
E = DPDT (Cross-wired)

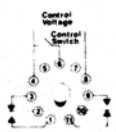
OUTPUT CONFIGURATIONS



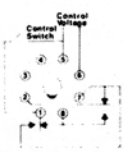
STYLE B SPDT



STYLE C Cross-Wired

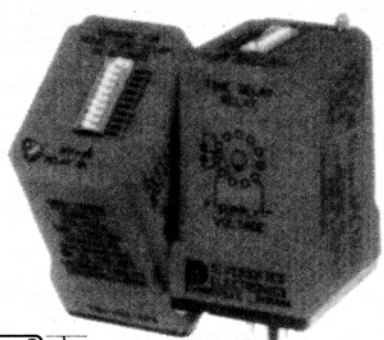


STYLE D DPDT



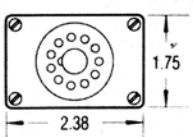
STYLE E Cross-Wired

Unitimer TBU SERIES

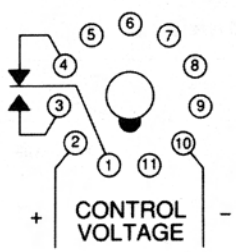


Operation

The TBU Series offers the accuracy of DIP SWITCH delay ranges "A" through "E" as well as the user programmable model, DIP SWITCH delay range "P", with four (4) different ranges obtainable by either leaving two (2) designated terminals unconnected or by connecting them to the appropriate terminals as shown below. The five (5) most common **modes of operation** are easily selected by the use of one or more jumpers applied externally between designated base pins as outlined below. These features coupled with five (5) most popular control voltages, makes this timer the most versatile and cost effective Time Delay Relay available today. The CMOS digital circuitry provides high accuracy, repeatability and fast reset times.



BASE DIMENSIONS (inches)



CAUTION: Do not program with power on!

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