

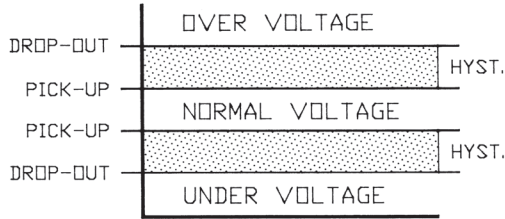
The **VBA Series** offers protection to **SINGLE PHASE** equipment that is required to operate between two voltage limits. Supply voltage is monitored for a preselected **UNDER** and **OVER** voltage limit.

### OPERATION

With normal operating voltage applied, the internal relay will energize (PICK-UP). When the voltage falls outside the preset Over/Under trip points for longer than the release delay, the relay will de-energize (DROP-OUT). When line conditions return to normal, the VBA Series automatically resets and the internal relay energizes.

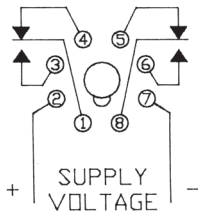
The HYSTERESIS in each unit on the Under and Over limits provides a differential between the PICK-UP and DROP-OUT trip points.

### WIRING



WIRING DIAGRAMS  
(SHOWN IN DE-ENERGIZED STATE)

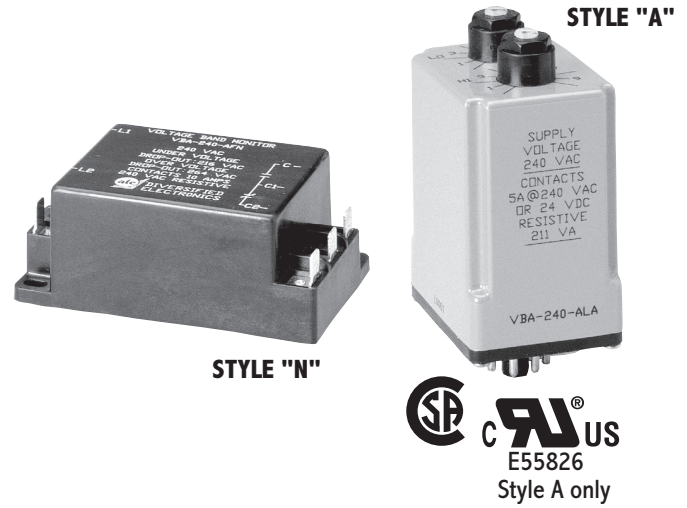
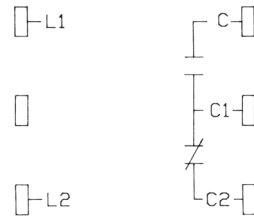
PLUG-IN MODEL  
Style A



(DC POLARITY SHOWN)

RB-08 or PF083A

SURFACE MOUNTED  
Style N



## Single Phase Voltage Band Monitor

### SPECIFICATIONS

**POWER REQUIRED** Models Up To 110 VDC: 3 Watts, Max.  
Models Up To 300 VAC: 5 VA, Max.

**OUTPUT RATING**

Style A	DPDT, 5A @ 240 VAC, Resistive; 211 VA @ 240 VAC
Style N	SPDT, 10A @ 240 VAC, Resistive; 180 VA, @ 120 VAC

**RESPONSE TIMES**

Operate	50 mSEC (approx.) (500 mSEC on 12 VDC units)
Release	0.5 SEC (approx.)

**TEMPERATURE RATING**

Operate	32° to +131°F (0° to +55°C)
Storage	-49° to 185°F (-45° to +85°C)

**WEIGHT** 5 oz.

MODEL VOLTAGE	NOMINAL VOLTAGE	PICK-UP UNDER VOLTAGE	PICK-UP OVER VOLTAGE	HYSTERESIS VOLTAGE
VBA-24-A*A	24 VAC	19-24	24-29	2
VBA-120-A*A	120 VAC	90-120	120-150	5
VBA-208-A*A	208 VAC	185-208	208-240	8
VBA-240-A*A	240 VAC	200-240	240-270	10
VBA-12-D*A	12 VDC	10-12	12-15	1
VBA-24-D*A	24 VDC	19-24	24-29	1
VBA-28-D*A	28 VDC	22-28	28-34	1
VBA-48-D*A	48 VDC	38-48	48-58	2
VBA-110-D*A	110 VDC	85-110	110-135	5
VBA-24-AFN	24 VAC	21.6	26.4	0
VBA-120-AFN	120 VAC	108	132	0
VBA-208-AFN	208 VAC	187	229	0
VBA-220-AFN	208/240 VAC	198	242	0
VBA-230-AFN	230 VAC	207	253	0
VBA-240-AFN	240 VAC	216	264	0

\*Adjustments - F = Fixed  
K = Knob  
L = Locknut

► APPLICATION NOTES – WIRING DIAGRAMS

