

FEATURES

- Voltage monitor / Band (window) voltage relay
- Controls supply voltage for equipment sensitive to supply tolerance and offers protection against under- and over-voltage conditions.
- Monitors voltage range of 48 to 276VAC
- Adjustable time delay up to 10 seconds to avoid nuisance tripping
- Minimum voltage setting as a percentage of the maximum voltage
- Red and green LEDs indicate 3 conditions, normal operation and 2 fault conditions
- DIN rail mounting
- UL and CE approvals, RoHS compliant



233

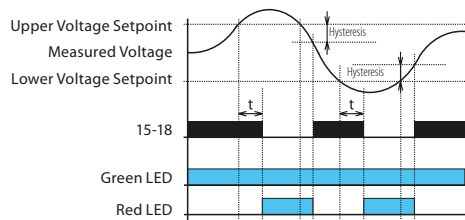
VOLTAGE MONITOR

10/15.08

SPECIFICATIONS

Input/monitoring terminals	A1-A2
Supply voltage	48-276VAC
Power consumption (ACmax)	1.2 VA
Upper voltage setting	160-276VAC
Lower voltage setting	30-95% of maximum
Maximum constant voltage	276VAC
Peak overload <1ms	290VAC
Time delay	adjustable, 0-10s
Setting accuracy	5%
Repeatability	<1%
Dependence on temperature	<0.1% / °C
Limit tolerance	5%
Hysteresis	2-6% of set value
Relay output form	SPDT Form C (AgNi)
Rated current	16 A/ AC
Switching capacity	4000 VA/ AC, 384 W/ DC
Inrush current	30 Amps / <3s
Switching voltage	250VAC / 24VDC
Switching capacity DC (min)	500mW
Indication of state	Red and Green LEDs
Mechanical life	30 million operations
Electrical life	70,000 operations
Operating temperature	-20°C to +55°C
Storage temperature	-30°C to +70°C
Dielectric strength	4 kV
Operating position	any
Mounting	DIN rail EN 60715
Protection degree	IP 40 from front panel
Max. cable size	14AWG
Standards	EN 60255-6, EN 61010-1, UL, CE, RoHS

MODE OF OPERATION

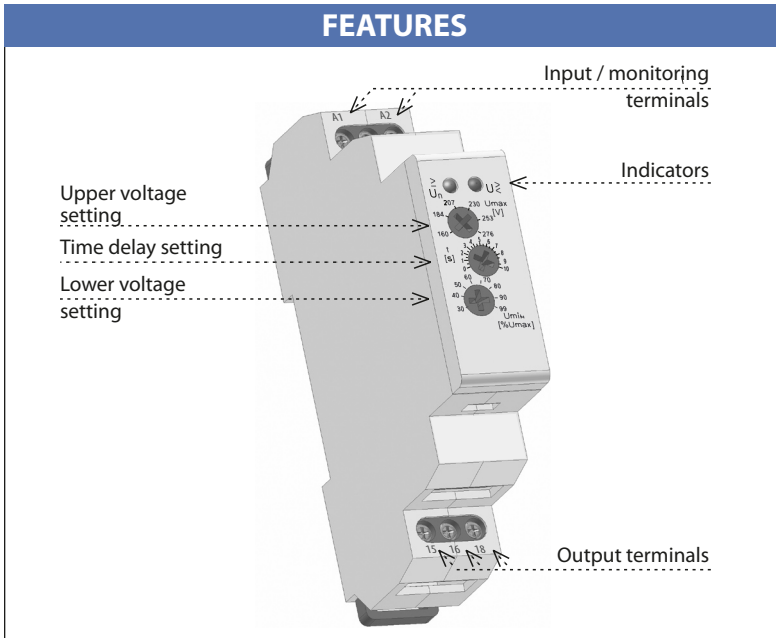


The 233 Voltage Monitoring Relay senses voltage level in single phase AC and DC circuits. Sensed voltage also serves as supply voltage. Two independent levels of voltage (upper and lower) can be set.

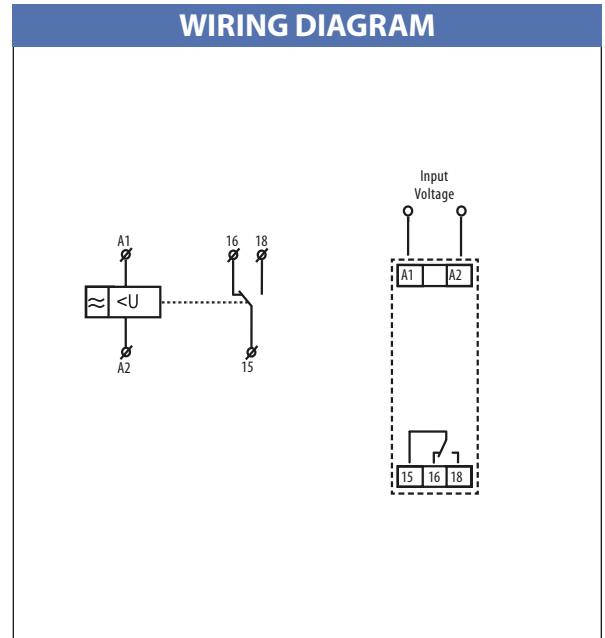
The 233 has an active output during normal operation and turns off when a fault is sensed. Loss of supply voltage therefore is a recognized fault.

Built-in hysteresis eliminates chattering at the transition point. SPDT (Form C) contacts allow various connection options. Red and green LED indicators allow quick identification of various fault conditions.

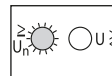
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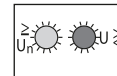
WIRING DIAGRAM



LED INDICATORS



Normal state
 $U_{min} < U_n < U_{max}$
 Green LED = ON
 Red LED = OFF



Exceeded U_{max} (**Over voltage**)
 Drop below U_{min} (**Under voltage**)
 $U_n > U_{max}$ or $U_n < U_{min}$
 Green LED = ON
 Red LED = ON