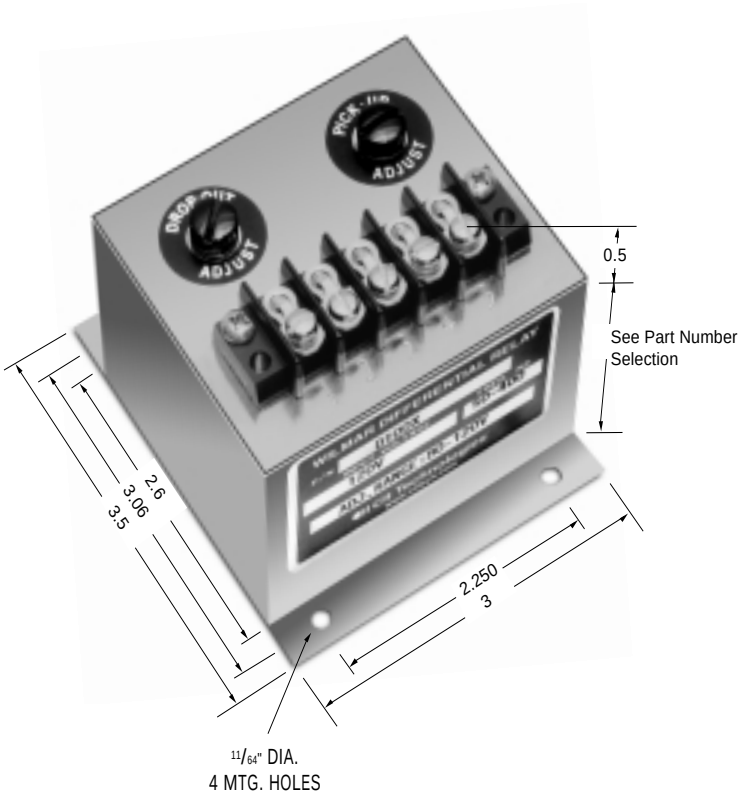
WILMAR™ Protective Relays – D100X Series, Close Differential



Note: Dimensions in inches. Multiply values by 25.4 for dimensions in mm.

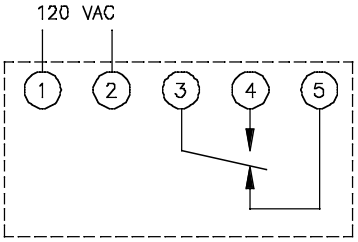
Function:

- ANSI/IEEE C37.90-1978
- UL file No. E58048
- CSA file No. LR61158

Close Differential Relays are voltage sensitive. The pick-up and drop-out voltage settings are independently adjustable, which allows precise setting of the differential voltage. This relay is available in a wide range of AC and DC voltages. Their primary application is the sensing and control of transfer switches.

Operation:

Monitors a single phase AC signal, and is used for undervoltage detection. Has separate pick-up and drop-out voltage settings, providing an adjustable hysteresis.



PRODUCT SPECIFICATIONS

Part Number	D100X
Nominal Voltage	AC, Single Phase, see part number selection
Nominal Frequency	50 to 400 Hz.
Pick-Up Adjustment Range	67-100% of nominal voltage
Drop-Out Adjustment Range	67-100% of nominal voltage
Maximum Differential Setting	33% of nominal voltage
Minimum Differential Setting	2% of nominal voltage
Output Contacts	Form C (SPDT)
Contact Ratings	5 Amp resistive at 120 VAC or 28 VDC
Operating Temperature Range	-20°C to +85°C
Expected Life	10 million operations

Inverse Time Drop-Out: The differential relay contains a time delay before operation so that momentary voltage transients do not affect the operation of the relay. The time delay has an inverse time characteristic so that excessive voltage conditions will cause a more rapid drop-out. This time delay is approximately 200mSec. (12 cycles) at the trip settings and decreases to 30 mSec. at approximately 15% beyond the trip settings.

PART NUMBER SELECTION

Sample Part No. **D100X**

Model: L-L Volts	Height
D100X = 120 VAC	2"
D100-6X = 120 VAC, Spike Suppression	2"
D100-3X = 208 VAC	3.125"
D100-4X = 240 VAC	3.125"
D100-8X = 277 VAC	3.125"
D100-5X = 480 VAC	3.125"
D100-7X = 510 VAC	3.125"

Surge Withstand Capability is in compliance with the requirements of ANSI/IEEE C37.90B

Notes:

1. Remove black nylon protective screws to gain access to the two internal adjustment potentiometers.
2. Clockwise rotation of the pick-up and drop-out adjustment will raise the voltage trip point.
3. The relay contacts are shown in the de-energized state.

Consult factory for additional models.