File E249019 Vol. 1 Sec. 3 Page 1 Issued: 2005-03-02 and Report Revised: 2009-12-03

DESCRIPTION

PRODUCT COVERED:

USL, CNL Speed Switch, Model Nos. DR1000, UDS1000, and R for use in Class I, Groups C and D and Class II, Groups E, F, and G Hazardous Locations.

GENERAL:

The Model Nos. DR1000, UDS1000, and R devices are motion sensing controls that monitor the speed of a magnetized disc. The units receive a speed or directional signal from a magnetic sensor and energize a relay output. The devices are permanently connected to supply source.

ENGINEERING CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE)

*The letters "USL" indicates investigation in accordance with UL 508, Industrial Control Equipment, 17th Ed. and UL 1203, Explosion-Proof and Dust Ignition-Proof Electrical Equipment for Use in Hazardous (Classified) Locations, $\mathbf{4}^{\text{th}}$.

The letters "CNL" indicates investigation in accordance with CSA No. CSA 22.2 No. 14-95 Industrial Control Equipment; CSA 22.2 No. 30-M 1986, Explosion-Proof Enclosures for Use in Class I Hazardous Locations; CSA 22.2 No. 25-1966; and Enclosures for Use in Class II Groups E, F, and G Hazardous Locations.

MODEL SIMILARITY:

All devises are similar in construction in that they contain power and logic printed circuit boards mounted within identical explosion proof enclosures. The differences are seen from the interface of the sensors with the logic board. The model DR1000 is intended for use with a three-wire sensor. The model UDS 1000 is for use with a four wire sensor, and the model R is for use with two-wire sensor. AC units (rated 115 or 220 VAC) have the same components on their power boards and differ from the DC units in that they have transformer and fuse. DC units (rated 12 VDC or 24 VDC) have no transformer. All units are provided with the same input and output terminals for connection to external supply, sensor conductors, and output circuits.

ELECTRICAL RATINGS:

Model	Voltage, V	Frequency, Hz	Current, A	Phase
DR1000	115 VAC	50/60	0.063	1
UDS1000	230 VAC	50/60	0.032	1
R	12 VDC	-	0.0125	
	24 VDC	3444	0.0125	

ENVIORNMENTAL RATINGS:

The devices have been evaluated for use in a $-40\,^{\circ}\text{C}$ to $65\,^{\circ}\text{C}$ ambient temperature range.