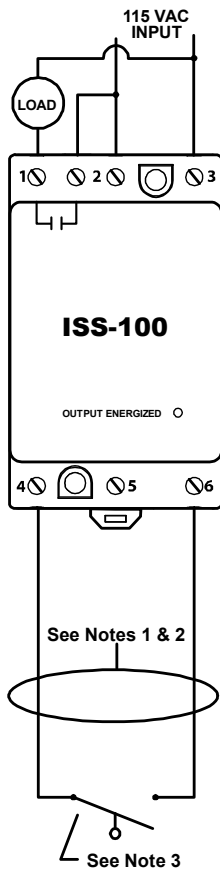


# ISS-100

## Single-Channel Intrinsically Safe Switch



### Wiring Diagram



1. Maximum distance between unit and switch contact is 10,000 feet.
2. All non-intrinsically safe wiring shall be separated from intrinsically safe wiring. Description of special wiring methods can be found in the National Electrical Code ANSI/NFPA 70, Article 504 Intrinsically Safe Systems. Check your state and local codes for additional requirements.
3. All switch contacts shall be non-energy storing, containing no inductance or capacitance.

### Description

The ISS-100 switches are UL 913 listed as an associated apparatus for interfacing between hazardous and non-hazardous areas. These units must be installed in a non-hazardous area.

### Features & Benefits

FEATURES	BENEFITS
<b>Finger-safe terminals</b>	Meets IEC 61000 safety requirements
<b>Compact design for DIN rail or surface mount</b>	Allows flexibility in panel installation
<b>LED Status Indicator</b>	Visual indication of relay engagement
<b>Isolated output relay</b>	Allows connection to PLC or control voltage

### Specifications

<b>Input Characteristics</b>	
<b>Supply Voltage</b>	90-120VAC
<b>Functional Characteristics</b>	
<b>Probe Sense Voltage</b>	5vdc continuous
<b>Output Characteristics</b>	
<b>Output Contact Rating</b>	
<b>Pilot Duty</b>	180VA @120VAC, C300
<b>General Purpose</b>	8A @120VAC
<b>Relay Contact Life (Electrical)</b>	100,000 cycles min. @ rated load
<b>Relay Contact Life (Mechanical)</b>	10,000,000 cycles
<b>General Characteristics</b>	
<b>Temperature Range</b>	-20° to 55°C (-4° to 131°F)
<b>Maximum Input Power</b>	1.5 W
<b>Wire range</b>	12 to 20 AWG
<b>Terminal Torque</b>	3.5 to 4.5 in.-lbs. (max. 4.5 in.-lbs.)

### Provides Intrinsically-Safe Circuits in the following locations:

Division 1 and 2  
Class I, Groups A,B,C,D;  
Class II, Groups E,F,G;  
and Class III

### Entity Parameters

$$V_{oc} = 16.8V \quad P_o = V_{oc} * I_{sc}$$

$$I_{sc} = 1.2mA \quad 4$$

$$L_a = 100mH$$

$$C_a = 0.39uF$$

### Standards Passed

**Electrostatic Discharge (ESD)** IEC 61000-4-2, Level 3, 6kV contact, 8kV air  
**Radio Frequency Immunity (RFI)** IEC 61000-4-3, Level 3, 10V/m  
**Fast Transients** IEC 61000-4-4, Level 3, 4kV input power

### Safety Mark

### UL

UL913 Sixth Edition (File #E233355)

### Dimensions

**H** 88.9 mm (3.5"); **W** 52.93 mm (2.08");  
**D** 59.69 mm (2.35")

### Weight

0.5 lb. (8 oz., 226.8 g)

### Mounting Method

35mm DIN rail or Surface Mount  
(#6 or #8 screws)