ISS-100

Single-Channel Intrinsically Safe Switch

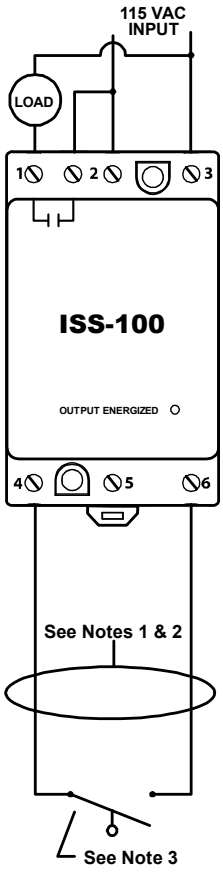
Description

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

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.

Specifications

Input Characteristics	
Supply Voltage	90-120VAC
Functional Characteristics	
Probe Sense Voltage	5vdc continuous
Output Characteristics	
Output Contact Rating	
Pilot Duty	180VA @120VAC, C300
General Purpose	8A @120VAC
Relay Contact Life (Electrical)	100,000 cycles min. @ rated load
Relay Contact Life (Mechanical)	10,000,000 cycles
General Characteristics	
Temperature Range	-20° to 55°C (-4° to 131°F)
Maximum Input Power	1.5 W
Wire range	12 to 20 AWG
Terminal Torque	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 Po=$\frac{Voc*Isc}{4}$ I_{sc} = 1.2mA 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)