# ISS-101

## Single-channel intrinsically safe switch


## Description

The ISS-101 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.

**Must use Model OT08PC socket for UL Rating!**

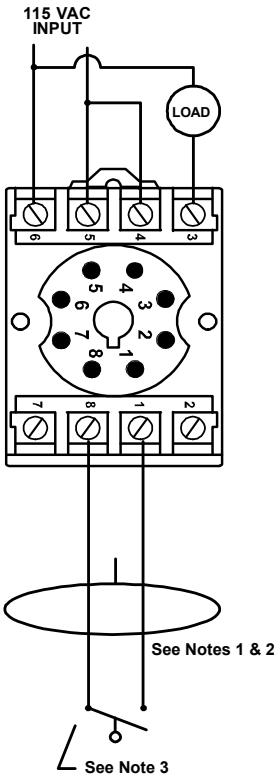
Note: Manufacturer's recommended screw terminal torque for the OT Series Octal Sockets is 12 in.-lbs.

## Features & Benefits

| FEATURES | BENEFITS |
|---|---|
| **Compact design for DIN rail or surface mount via octal base** | Allows flexibility in panel installation |
| **LED status indicator** | Visual indication of relay engagement |
| **Isolated output relay** | Allows connection to PLC or control voltage |
| **Standard 8-pin socket** | Pop-in replacement for other manufacturers' parts |

## Wiring Diagram

CONTROL DRAWING ISS-101




**NOTES:**
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.

**See Install Bulletin for full instructions and Hazardous Location information.**

## Accessories (included)

**OT08PC 8-pin Octal Socket**
Octal Socket for plug-in units. 8-pin surface & DIN rail mountable. Rated for 10A @ 600VAC.

## 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<br>Class I, Groups A,B,C,D;<br>Class II, Groups E,F,G;<br>and Class III |
| **Entity Parameters** | $V_{oc}$ = 16.8V Po=$\frac{Voc*Isc}{4}$<br>$I_{sc}$ = 1.2mA<br>$L_a$ = 100mH<br>$C_a$= 0.39uF |

# ISS-101

**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** 44.45 mm (1.75"); **W** 60.33 mm (2.375"); **D** 104.78 mm (4.125") |
| **Weight** | 0.5 lb. (8 oz., 226.8 g) |
| **Mounting Method** | DIN rail or surface mount (plug into OT08PC socket) |