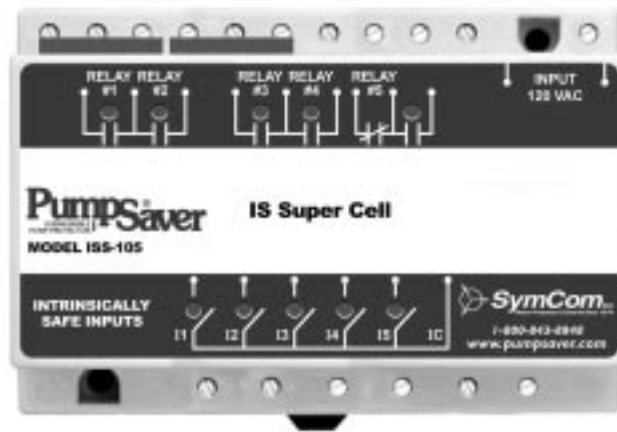


## Features

- UL 913 listed.\*
- Compact Design
- Finger safe terminals.
- DIN rail or surface mountable.
- LED state indicator.
- Isolated output relay for PLC or control voltage.



**PumpSaver**  
SUBMERSIBLE  
PUMP PROTECTOR

**Model ISS-105**

**Intrinsically  
Safe Switch**

**Engineered  
Protection**

**Made in USA**

The **Model ISS-105 IS Super Cell** is a "smart" five-channel intrinsically safe relay and pump controller. It can operate in a wide variety of pumping configurations including alternating or non-alternating duplex, duplex separate pump stop (SPS), triplex and quadplex for either pump up or pump down applications. It can also be set up as a simple five channel intrinsically safe relay.

The IS Super Cell has a long list of "smart" features that are needed for multiple pump applications. The IS Super Cell can indicate low, high and out-of-sequence alarms. If an out-of-sequence alarm occurs, the skipped pump(s) will be started as intended. The Model ISS-105 can be set up to do non-alternating control, alternating control and alternating control with one non-alternating pump. The non-alternating pump is intended for use as an emergency pump or jockey pump. The IS Super Cell can start the non-alternating pump once every 50 cycles to keep it working freely. Using the built-in DIP switches, individual pumps can be disabled when taken out of service for repair or maintenance. ISS-105 must be installed in a non-hazardous area. Follow SymCom's Control Drawing 105 for proper installation (See ISS-105 installation guide).

### Additional Features

- Five intrinsically safe input channels meeting UL 913 Sixth Edition, August 8, 2002
- Four normally open output relays & one SPDT output relay
- Field selectable pump control options
- Duplex pump control
- Duplex SPS (Separate Pump Stop) pump control
- Triplex pump control
- Quadplex pump control
- Out-of-sequence alarm
- High and/or low alarm options depending on number of pumps and settings
- Audible alarm output
- Meets IEC EMC standards for Electrical Fast Transients (EFT), Electrostatic Discharge (ESD) and Radio Frequency Immunity (RFI)
- DIN rail or surface mount in one package
- User selectable alternator/non-alternator option
- Non-alternating pump option for emergency or jockey applications
- Pump disable switches
- Delay on make timer for all lag pumps in all pump control modes
- Delay on make/break timer in five channel ISS mode
- Pump up or pump down control



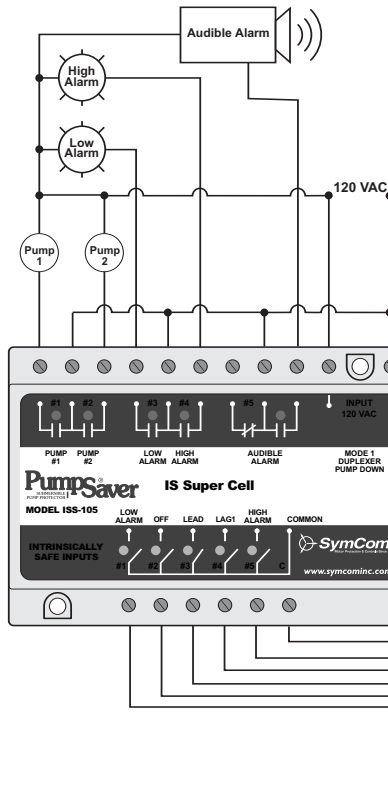
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# Pumpsaver<sup>®</sup>

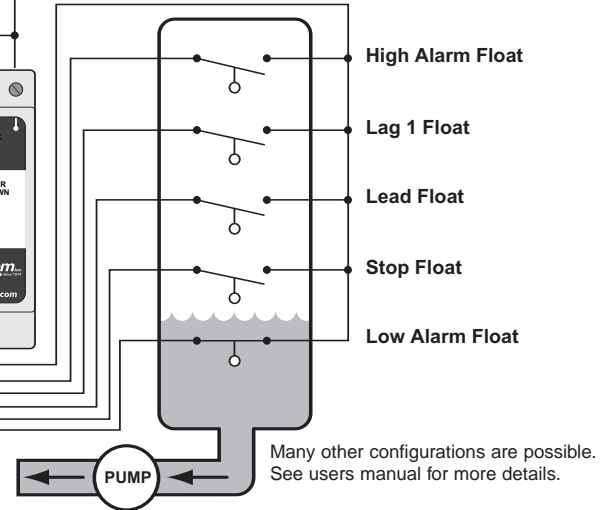
SUBMERSIBLE PUMP PROTECTOR

## Model ISS-105 INTRINSICALLY SAFE SWITCH

- Specifications
- Operating Points
- Special Options



**Typical Application:**  
Duplex Pump Down with High and Low Alarms.



### SPECIFICATIONS

- Supply Voltage .....120 VAC  $\pm$ 10%
- Relay Output Rating
  - General Purpose .....7 Amps @ 240 VAC
  - Pilot Duty .....480 VA @ 240 VAC, B300
  - Relay Contact Life (Electrical) .....100,000 cycles min. @ rated load
  - Relay Contact Life (Mechanical) .....10,000,000 cycles
- Operating Temperature .....-20 to 55° C
- Weight .....1.2 lb
- Power Consumption .....5 Watts max.
- Wire range .....12 to 20 AWG
- Recommended Terminal Torque...3.5 to 4.5 in. lbs. (max. 6 in. lbs.)
- Provides intrinsically safe circuits in the following locations:
  - Class I, Groups A,B,C,D;
  - Class II, Groups E,F,G;
  - and Class III
- Entity Parameters ..... $V_{OC} = 16.8 V$   
 $I_{SC} = 1.7 mA$   
 $L_a = 0$   
 $C_a = 0$
- Standards Passed
  - Electrostatic Discharge (ESD) .....IEC 61000-4-2, Level 3, 6kv contact, 8kv air.
  - Radio Frequency Immunity (RFI) .....IEC 61000-4-2, Level 3, 10V/m
  - Fast Transients .....IEC 61000-4-4, Level 3, 4kv input power  
2kv Inputs/Outputs

SymCom warrants its products against defects in material or workmanship for a period of two (2) years from the date of manufacture. For complete information on warranty, liability, terms, returns, and cancellations, please refer to the SymCom Terms and Conditions of Sale document.

