## OPERATION

The ISO Series single channel devices are used to provide a safe and reliable means of controlling loads from hazardous locations without releasing sufficient energy, under normal or abnormal conditions, to cause ignition of a flammable or combustible atmospheric mixture while in its most easily ignited concentration. An isolated output turns on when the control switch input from the hazardous location is closed. When the control switch input opens, the isolated output turns off. The Style A single channel plug-in devices come equipped with integral spring mating clips and socket (PF083A) which secure the device to make this unit the only UL913 Intrinsically Safe plug-in associated apparatus available on the market today. The Style N , surface mounted enclosure is sealed with a high quality epoxy resin material and has five (5) \#8-32 screw terminals.


Process Control Equipment for Hazardous Locations 7M26 UL913


Single Channel Isolated Switch

SPECIFICATIONS

| CONTROL VOLTAGE | 24 or $120 \mathrm{VAC} \pm 10 \%, 50 / 60 \mathrm{~Hz}$ |  |
| :--- | :--- | :--- |
| CONTROL SWITCH | Open Circuit Voltage | 16 VDC |
|  | Short Circuit Current | $200 \mu \mathrm{Amps}$ |


| RESPONSE | Operate | 6 mSEC (Approx.) |
| :--- | :--- | :--- |
|  | Release | 2.5 mSEC (Approx.) |

POWER REQUIRED 1.5 VA

| DUTY CYCLE | Continuous |
| :--- | :--- |
| CONTACT | SPST-N.O., 5 amps @ 24 |
| RATING | or 120 VAC, Resistive; 278 VA, Inductive |
| SENSITIVITY | 100 k ohm |
| ISOLATION | 2500 Volts, Input to Output |
| LIFE EXPECTANCY | Mechanical 20 Million Operations |
|  | Electrical $\quad 50,000$ Operations @ Rated Load |


| INDICATORS | On When Output is On |  |
| :--- | :--- | :---: |
| TEMPERATURE | Operate $\quad-4^{\circ}$ to $131^{\circ} \mathrm{F}\left(-20^{\circ}\right.$ to $\left.+55^{\circ} \mathrm{C}\right)$ |  |
| RATING | Storage $\quad-40^{\circ}$ to $185^{\circ} \mathrm{F}\left(-40^{\circ}\right.$ to $\left.+85^{\circ} \mathrm{C}\right)$ |  |
| ENCLOSURE | Style "A" and "N" |  |
| TERMINATIONS | (12) \#8-32 Screw terminals |  |
| WEIGHT | 20 oz. |  |

## ORDERING INFORMATION

| MODEL <br> NUMBER | CONTROL <br> VOLTAGE | ENCLOSURE <br> STYLE |
| :---: | :---: | :---: |
| ISO-24-AFA | 24 VAC | A |
| ISO-120-AFA | 120 VAC | A |
| ISO-24-AFN | 24 VAC | N |
| ISO-120-AFN | 120 VAC | N |

Style "A" Socket Included (PF083A) with clips



Multiple Channel Isolated Switch


## OPERATION

The ISO/ISL Series multiple channel devices are used to provide a safe and reliable means of controlling loads from hazardous locations without releasing sufficient energy under normal or abnormal conditions to cause ignition of a flammable or combustible atmospheric mixture while in its most easily ignited concentration. An isolated output turns on when the corresponding control switch input from the hazardous location is activated. When using normally closed control switch inputs, a jumper should be installed between terminals 1 and 2. Normally open control switch inputs do not require the optional jumper. When the
non-latching ISO Series control switch input is activated, its corresponding output turns on. When the control switch input is deactivated, its output turns off. When the latching ISL Series control switch input 2, 3 or 4 is activated, its corresponding output turns on. When control switch 2, 3 or 4 is deactivated, its corresponding output remains latched on as long as control switch input 1 is activated; otherwise it turns off immediately. Control switch input 1 also controls output 1 just as in the non-latching ISO Series.

## DIMENSIONS (INCHES)



## ORDERING INFORMATION

| MODEL <br> NUMBER | CONTROL <br> VOLTAGE | CHANNELS |
| :---: | :---: | :---: |
| ISL-24-AAE | 24 VAC | 2 |
| ISL-24-ABE | 24 VAC | 3 |
| ISL-24-ACE | 24 VAC | 4 |
| ISL-120-AAE | 120 VAC | 2 |
| ISL-120-ABE | 120 VAC | 3 |
| ISL-120-ACE | 120 VAC | 4 |
| ISO-24-AAE | 24 VAC | 2 |
| ISO-24-ABE | 24 VAC | 3 |
| ISO-24-ACE | 24 VAC | 4 |
| ISO-120-AAE | 120 VAC | 2 |
| ISO-120-ABE | 120 VAC | 3 |
| ISO-120-ACE | 120 VAC | 4 |



1. Maximum distance between unit and switch contact is 1000 feet.
2. All intrinsically safe wiring shall be separated from non-intrinsically safe wiring. Refer to article 504 of the National Electrical Code ANSI/NFPA 70 for installation of intrinsically safe wiring.
3. Switch contact shall be any non-energy storing or generating mechanical switch type device containing no capacitance or inductance.

CONTROL DRAWING 192

NOTES:

2. All intrinsically safe wiring shall be separated from non-intrinsically safe wiring. Refer to article 504 of the National Electrical Code ANSI/NFPA 70 for installation of intrinsically safe wiring. mechanical switch type device containing no capacitance or inductance.
4. Unit must be installed with DE socket P/N PF083A.


NOTES:

1. Maximum distance between unit and switch is 1000 feet.
2. All intrinsically safe wiring shall be separated from
non-intrinsically safe wiring. Refer to article 504 of the
National Electrical Code ANSI/NFPA 70 for installation of intrinsically safe wiring.
3. Switch contact shall be any non-energy storing or generating mechanical switch type device containing no capacitance or inductance.
4. Wiring to terminals $5,6,11$ and 12 is omitted for models with the suffix AAE.
5. Wiring to terminals 6 and 12 is omitted for models with the suffix $A B E$
