



**intellegre**<sup>TM</sup>  
BETTER INTELLIGENT<sup>®</sup>

## F-Switch<sup>TM</sup> by intellegre<sup>TM</sup> – Specification

(Subject to change -previously called UniSwitch )

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## 1.0 IntellePerf™ F-Switch™ Specifications

### 1.1 Environmental Rating

Description	Rating
<b>Operating Temperature Range</b>	-20 °F (-29 °C) to 350 °F (177 °C)
<b>Non-powered Maximum Temperature</b>	-58 °F (-50 °C) to 392 °F (200 °C)
<b>Max Thermal Change</b>	9°F (5 °C) / Minute
<b>Mechanical Shock Compliance</b>	Compliant to all hollow carrier gun systems
<b>Vibration (3 axis)</b>	50 g RMS @ Sweep Frequency 50-1000 Hz

### 1.2 Electrical Specification

Description	Rating
<b>Operating Voltage Range</b>	-500 VDC to -20 VDC
<b>Operating Current– Standby</b>	1ma
<b>Communication Current</b>	25ma

### 1.4 Downhole Electrical Specification

Description	Rating	Time
<b>Maximum Voltage Rating</b>	Forward	500V
	Reverse	-550V
<b>Maximum Firing Current</b>	Forward (Nominal )	1A
	Forward (Maximum )	1.5A
<b>Maximum Switches in a Gun String</b>	128	
All ratings at 177C, All Voltage and current ratings are in DC		
All detonators are fired using negative voltage, Dump Fire not recommended.		

### 1.5 Compatibility

Description	Rating
<b>Detonators – Hot Wire</b>	50 ohms or higher (single or double resistor types)
<b>Igniters – Setting Tools</b>	50 ohms or higher
<b>RF Safe Detonators</b>	PX-1/EBW, RED (all versions), Exploding Foil Initiators.

### 1.6 Mechanical Dimensions

The length, width and height are 1.42 x 0.68 x 0.4 inches.

## 2.0 Features

- RP 67 3<sup>rd</sup> Edition compatible surface check.
- Reduced misruns.
- Allows misfired guns to be skipped over.
- Indicated gun firing.
- Up/Down Communication provides surface with status for every command sequence.
- Operator selectable firing periods -12 seconds for shooting detonators & 30 seconds for shooting igniters.
- The Switches can be combined with 50 ohm resistorized detonators to form an API RP 67 Group 2 electronic detonator.
- 3<sup>rd</sup> part Safety Review completed by Peak-Electromagnetics Ltd.
- Safely checks communication and wiring integrity before RIH.
- No separate Plug switch.
- All detonators are fired using negative shooting power.
- Fast Communications enable operator to complete jobs efficiently.