

Positron Power Isolator

The Positron Power Isolator is a system for delivering high-voltage isolated regulated 100 W @ 48 Vdc up to 2,000 feet away from a voltage source typically located at a power substation. Positron’s Power Isolator technology provides a source of power to drive field electronics free from any direct remote ground reference anywhere on or off of the substation ground grid, even if used inside the Zone of Influence. This means a power source immune to sudden high-voltage disturbances and GPR events.

50 kV RMS Isolation

Sophisticated power conversion electronics are partnered with Positron’s unique high-voltage isolation transformers achieving continuous 50kV RMS isolation from any ground reference.

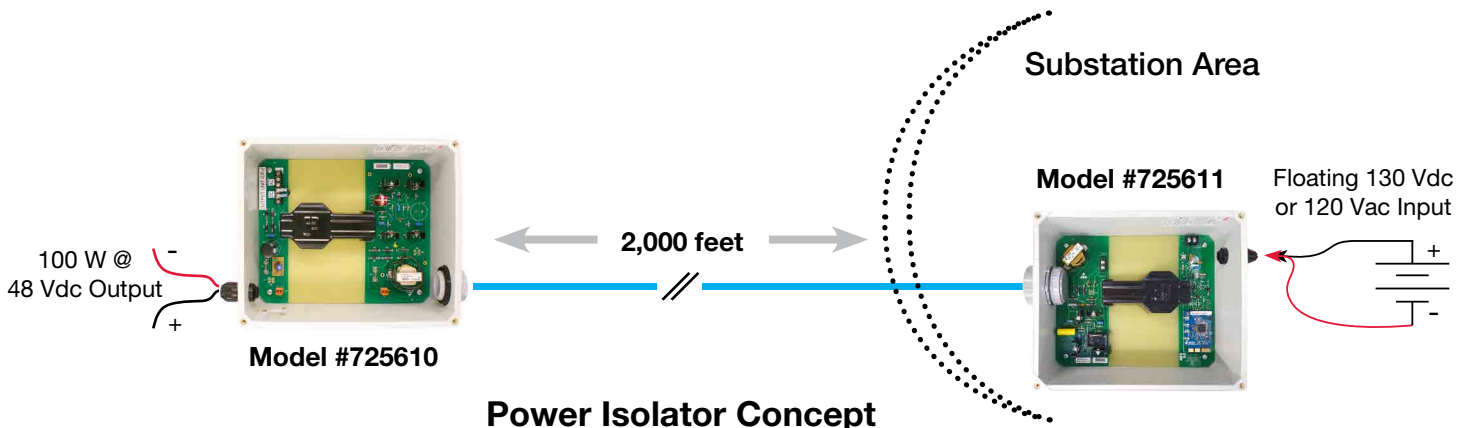
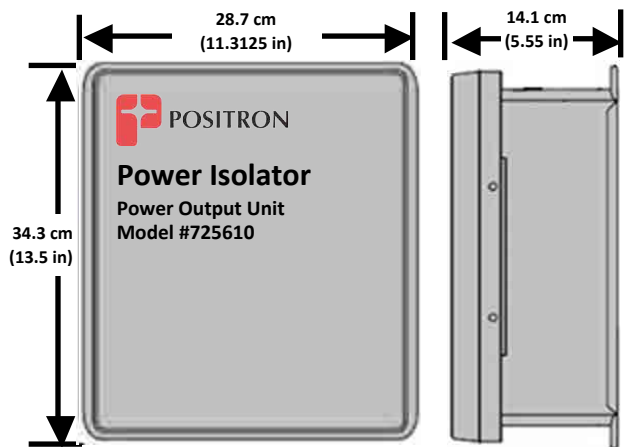
Twin Fiberglass High Dielectric Strength Enclosures

The system is housed in two identical 12” x 14” x 6” NEMA 4X rated fiberglass enclosures. With the connecting electrical conductors isolated by Positron’s high-voltage isolation transformers and contained in Schedule 80 PVC conduit, the highest level of high-voltage isolation is achieved.

During a power fault at the substation, the power output remains stable and unaffected by a GPR event. Providing isolation of 50 kV RMS at both the input and output completely blocks any common-mode electrical potentials.



**Power Isolator Output Unit
Model #725610**



Power Isolator Concept

Under GPR fault conditions, only the voltage potential difference between the Power Input and Power Output would exist between the units. That cannot affect the voltage input source or the destination electronic equipment being powered. The units are completely safe.

From a 130 Vdc or 120 Vac voltage source, the Power Isolator 100 Watt System is suitable for providing isolated power to any field electronics requiring 48 Vdc, such as site-monitoring cameras, security electronics, the Copper Fiber Junction (CFJ) of a hybrid-fiber high-voltage communications isolation installation, or an all-dielectric Fiber-Fiber Junction (FFJ) either located inside or outside of the Zone of Influence of a power station. Other input and output voltages are available in custom models with Positron's breakthrough power electronics coupled with its high-voltage isolation technology.

General Specifications

Model #725611 Input Power Unit / Model #725610 Output Power Unit	
Parameter	Specification
Power Transfer:	100 Watts @ 48 Vdc \pm 5% Output
Input Voltage Range:	120 Vac \pm 5% / 105 Vdc to 156 Vdc
Isolation Voltage:	50 kV RMS (70 kV peak)
Operating Temperature:	-40° C to +70° C (-40° F to +158° F)
Humidity:	90% non-condensing

Ordering Information

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