

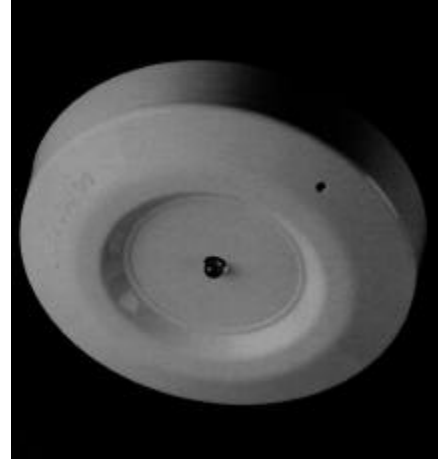


# XP95A ISOLATOR & BASE

Model IMB-750

## General Description

Most XP95A systems are connected as closed loop systems that can be interrogated from either end so that all devices can remain in operation if an open circuit fault in the wiring occurs. A short-circuit fault can potentially disable the whole loop, but by interspersing isolators along the loop only the small section between isolators will be affected by the short circuit fault. The isolator uses a patented technique for recognizing a wiring short circuit by the voltage drop it causes. The isolators “disconnect” the shorted portion of the loop from the rest. When the short circuit is removed the isolators automatically restore power and data to the section. Isolators fit into a unique base that will not accept XP95A monitors or other products from the Apollo ranges.



Unlike other XP95A devices, isolators are polarity sensitive. The **positive** dc supply conductors must be connected to terminal “**L2IN/OUT**” and the negative dc supply conductors to terminal “L1 IN and L1 OUT”.

In standby operation, the isolator provides a two-way power and data pathway with a low resistance of  $0.2\Omega$  typically and of  $0.4\Omega$  maximum. If the incoming or outgoing supply voltage falls below  $15\pm 1.5V$  the isolation circuit operates to isolate in the direction of the short circuit. It also causes the yellow LED to light up. The voltage sensing continues to operate and when the short circuit is repaired the isolator automatically reverts to its low resistance condition.

## Specifications

Device Part No:	55000-750
Base Part No:	45681-211
Isolator Type:	2-way, bi-directional, polarity sensitive.
Method of Isolation:	Line resistance between L1 IN and L1OUT increases to $39k\Omega$ under isolating condition, giving an effective “open circuit” in the negative line.
Line Voltage:	(normal operation) 17V – 40V.
UL-approved temperature range:	$32^{\circ}F$ to $100^{\circ}F$ .
Humidity:	(no condensation) 0% to 95% relative humidity.
Line Resistance:	(typical at $75^{\circ}F$ ) $0.2\Omega$ . (maximum over temperature) $0.4\Omega$ .
Line Volt-drop:	(L1 IN to L1 OUT) 20mV at 100mA; 200mv at 1.0A.
Transient Protection:	Maximum clamping voltage 80V; shunt diode on polarity reversal.
Weight:	Isolator 2.5oz. Base 1.6oz.
Dimensions:	(isolator in base) 4in diameter. 1.3in height.
Case Material:	White Polycarbonate.

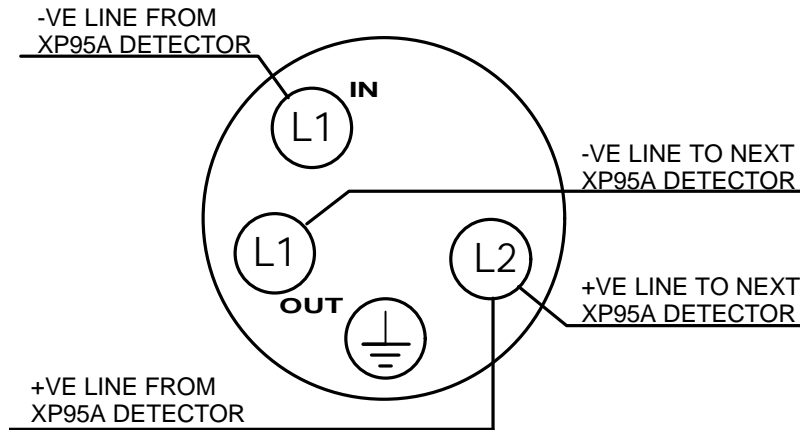


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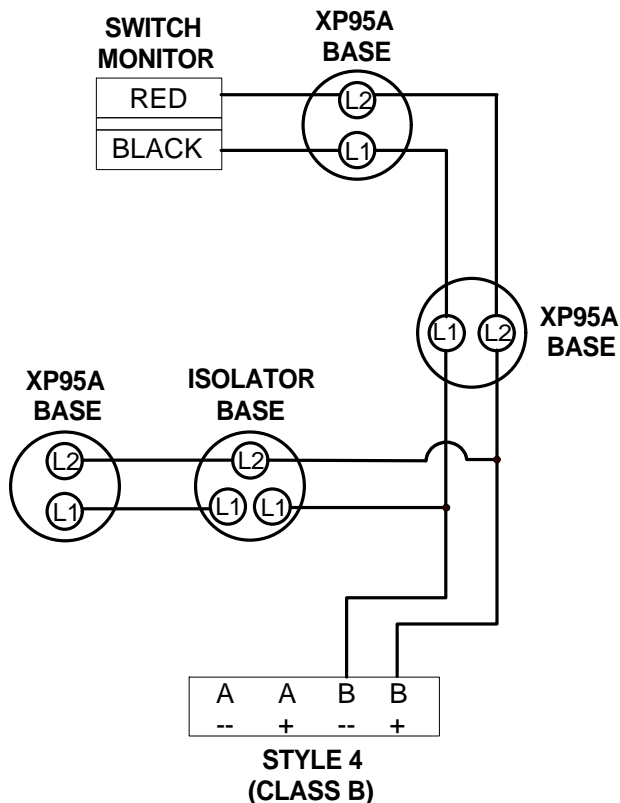
## XP95A ISOLATOR BASE

THE ISOLATOR IS POLARITY SENSITIVE  
CONNECT POSITIVE LINE TO L2 IN/OUT  
AND NEGATIVE LINE TO L1 IN & L1 OUT



### **WARNING**

Do NOT Loop the Positive Line Around the L2 Terminal.  
The Line Must Be Broken at L2 to Ensure Safe Operation.



### NFPA Wiring

The diagram to the left exemplifies how the Isolator Base and Module may be integrated into standard loop wiring. For an example of Style 7 wiring, see the product manual for the S3000 panel.

NOTE:  
The XP95A Short Circuit Isolator has been approved by Underwriters Laboratories Inc. for use with SafeTECH™ Series 3000 products.