

## TECHNICAL DATA SHEET EQUIPOTENTIAL EARTH CLAMPS/JOINT PROTECTORS



### Introduction

Many computer and communications installations are specified with the requirements for separate earthing systems. The *Gatekeeper* equipotential earth clamps allows secure bonding of these separate earthing systems without directly bonding the systems together. Other applications include gas pipelines, Defence sites where a secure, quiet earth is required.



### Installation

*LDU Gatekeeper* equipotential earth clamps are installed simply by connecting one end of the clamp to one earth and the other end to the other earth. For the joint protectors simply attach one end of the protector top each side of the joint.

### Operation

*LDU Gatekeeper* equipotential earthing products utilise high reliability, high capacity gas filled surge arresters. The clamps are housed in sturdy non-metallic enclosures, which are water resistant and may be buried if necessary, even though it is preferable to install in a pit for future examination. Under normal conditions, the arrester appears as an open circuit with minimal capacitance keeping the two earths separate. When a difference in potential exists, the gas arrester fires equalising the two earths. Once the two earths are of equal potential, the arrester turns off, returning to its normal open circuit state separating the two earths. If surge ratings are not exceeded, the arrester should be good for 10,000 operations.

### Specifications

Electrical Specification:	GKEEC/IJP40-90	GKEEC/IJP120-230	GKEEC/IJP150-350
Connection Type:	Series		
Rated DC Sparkover Voltage (100V/s):	90V	230V	350V
Impulse Sparkover Voltage (1kV/us):	250V	650V	1000V
Insulation Resistance (at 100 Vdc):	> 1 G/Ohms		
Capacitance	<4 pF		
AC Discharge Current (50Hz; 1s; 5 times):	100A		
Max Discharge Current (8/20us: 1 time):	40KA	120kA	150kA
<b>Mechanical Specifications:</b>			
Connection Type:	Fly leads		
Mounting	Inline		
Enclosure	PVC Enclosure with epoxy compound filled. External heatshrink casing		
IP index:	IP 65		
Length (mm):	175		
Depth (mm):	25		
Fly Leads (mm):	16mm <sup>2</sup> marine grade double insulated 300mm cable.	16/70mm <sup>2</sup> marine grade double insulated 300/100mm cable.	70mm <sup>2</sup> marine grade double insulated 300mm cable.

**KEY:** Example: GKEEC/IJP40-90

Gatekeeper	Insulated Joint Protector	Clamping Voltage
<b>GK</b>	<b>EEC/</b>	<b>IJP</b>
Equipotential Earth Clamp	40	- 90
	KA Rating	

