

# Technical Card

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## Product Information

The LCP-1 is a DC Transient protection system for strain gauge load cells and for RS-232C serial data lines. You can use it with 175 $\Omega$ , 350 $\Omega$ , 700 $\Omega$ , or 1,000 $\Omega$  impedance cells.

The maximum excitation voltage (measured from [+] Excitation to [-] Excitation) is 20 VDC. It will work with AC or “chopped” supplies as long as the peak to peak signal doesn’t exceed approximately 9 VDC. LCP-1 is for four wire systems only. For installations requiring extensive remote sensing, use the LCP-2 with remote sense protection.

## Environment

LCP-1 is designed to go in NEMA 1,2,3, or 11 environments. This means indoors in damp or dusty environments, or outdoors in wet environments like you would get from rain or dew. It is not designed for NEMA 4X or 6 areas where the box will be sprayed with a fire hose or be under water. If the LCP-1 must be submerged or hosed down, use Perm-a-tex Number 2 removable gasket compound on both sides of the gasket (install in the field). This provides an excellent seal which will not leak under the worst conditions. The LCP-1 will work well in most pit environments or outdoors. LCP-1 units are potted except for the connectors. If the inside should get wet, simply dry them out with air or alcohol. Internal damage is very unlikely. If moisture tends to accumulate in the enclosure, install a small silica gel or other dessicant bag in the enclosure. If you do, remember to change it about every six months.

## Mounting

Pick a mounting site near the cell you wish to protect. If this is in a pit, mount the LCP-1 as high up on the steel as possible (this helps in the rainy season). If water is a real problem, mount the unit upside down. Use stainless steel or monel hardware for mounting whenever possible.