



## Ventev Custom-Engineers an Enclosure System for Utilities Gas Exploration Project

### Executive Summary

#### Client:

Large Midwestern Utility

#### Client Challenge:

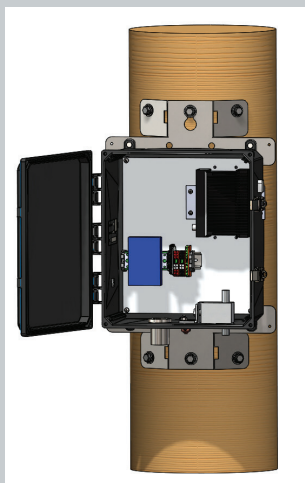
Provide rugged protection for CalAmp Radios with Converters

#### Product Solution:

##### 14 x 12 x 6 Polycarbonate Radio Enclosure

Ventev's NEMA 4X Polycarbonate Radio Enclosure easily accommodates the CalAmp radio with a converter, as well as the additional components required:

- Lightning Arrestor
- Media Converter
- Fuse Block
- Bulkhead Hub
- Stainless Steel Pole Mounting Bracket



When a large Midwestern Utility was searching for an enclosure to protect radios they were using for data communications during a major natural gas exploration project, they contacted Ventev.

The enclosure needed to provide rugged, NEMA 4X-rated protection for CalAmp radios with converters, and be cost-effective and easy-to-deploy. The enclosure had to protect the valuable electronic equipment from harsh weather, including extreme temperatures, snow, ice, and lightning. It would also need to safeguard against current overload. And finally, it needed to have a rugged, corrosion-proof mount that allowed simple, trouble-free installation.

#### Solution

Ventev's solution was an integrated enclosure that would protect the wireless radio that included:

- Lightning Arrestor- to protect the electronics inside the enclosure from lightning strikes on the antenna.
- Media Converter- used to meet the serial conversion specifications required by the CalAmp radio.
- Fuse Block- to protect the electronics inside the enclosure from current overload situations. The customer requested a DIN rail mounted solution that could also be used as a power disconnection switch.
- Bulkhead Hub- a one inch diameter conduit would be connected to the enclosure. The hub had to be threaded a specific way to accommodate this.
- A custom, stainless steel bracket to mount the enclosure to a pole

Ventev encountered a small challenge with the project that was easily accommodated by the in-house engineering team. The serial cable connecting the CalAmp radio to the media converter was not a straight, pass-through cable, but a crossover cable that had to be custom designed specifically for the CalAmp radio.

#### Outcome

The utility company was very satisfied with Ventev's plug and play enclosure. It was ideal for their large deployment, and dramatically reduced installation times. Future deployments of the enclosures depend on the continued success of the natural gas exploration. To-date the utility has purchased over 1,000 enclosures.



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14 x 12 x 6 Polycarbonate Enclosure Technical Drawing

