



CM-V

Submersible Current Monitor



Application

The Cleveland/Price submersible current monitoring assembly CM-V enables utilities to monitor the current values of up to 10 underground 3-phase circuits within a vault. The unit is able to report line current values on a periodic basis or when polled. The CM-V is provided with high and low set points for each circuit that will activate an alarm when any current value is outside of the set parameters.

Communication from the CM-V can be by cell modem, radio, or fiber optics. Ethernet, RS-232, and RS-485 connections are provided on the Reliatronics RTU 3200 device. For local communication with the RTU, a water-tight external RJ-45 connector with padlockable cover is provided. The RTU is provided with DNP 3.0 protocol.

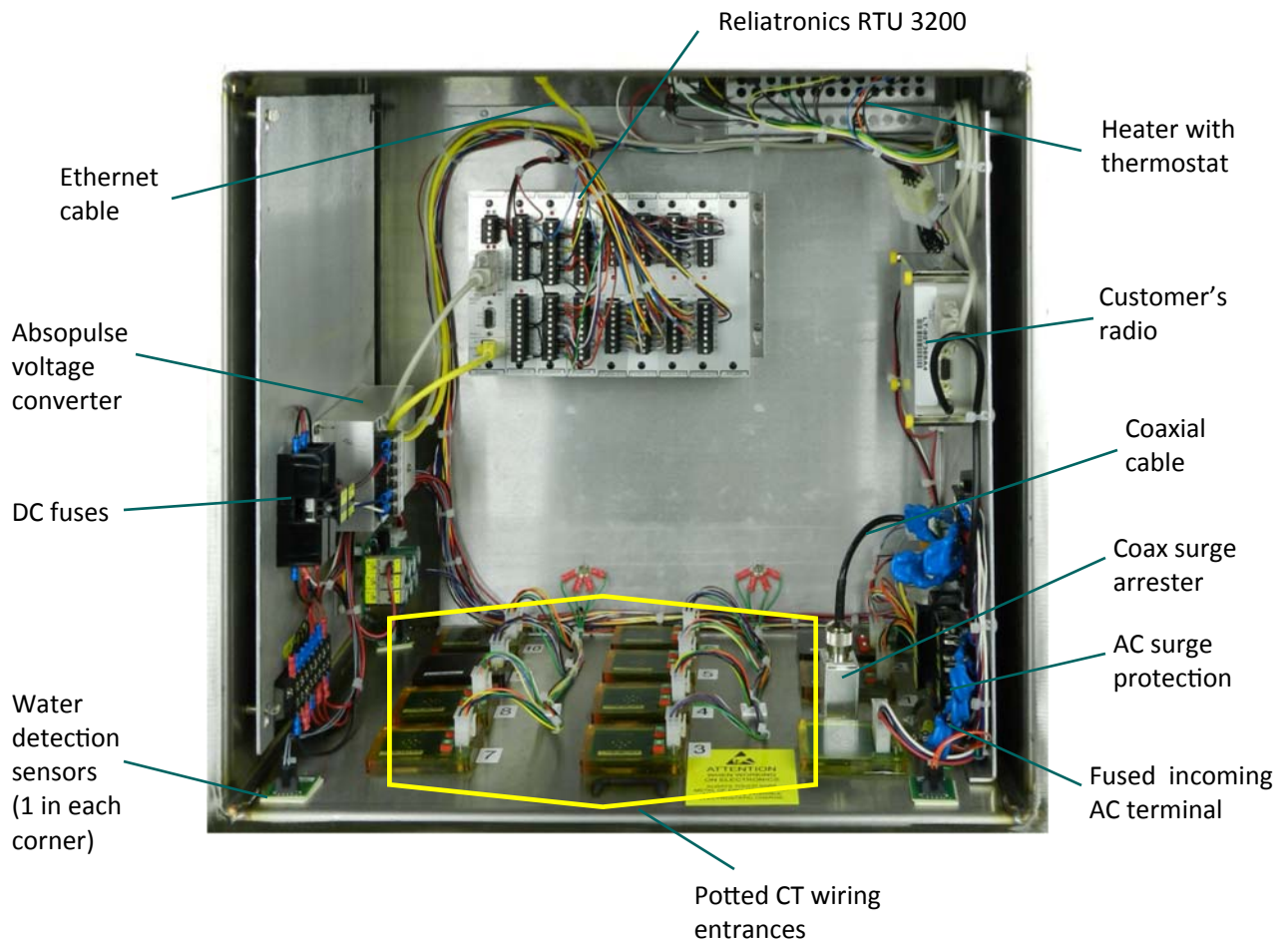
Water-tight cables from the CTs are provided. All connections between the CM-V enclosure and the cables are water-tight.

The CM-V is designed for easy handling and installation and will easily fit through a 36" man hole access.



Current monitoring assembly with inputs from 30 CTs (10 circuits)

CM-V Component Layout



Current Monitoring in an Underground Installation



BUILDING RELIABILITY INTO A VAULT MOUNTED CURRENT MONITORING STATION

The environment in switch vaults is nasty. Vaults regularly fill with water that contain all sorts of contaminants. The Cleaveland/Price CM-V enclosure is designed specifically to endure this kind of environment.

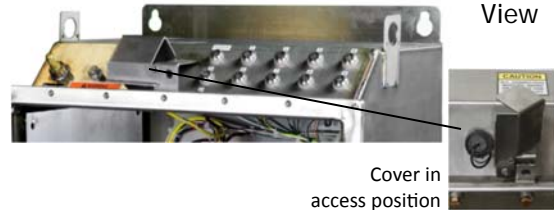
The submersible vault mounted CM-V enclosure is rated IP68 and features:

- Stainless steel construction
- Removable gasketed access panel
- Gore vent to allow equalization of ambient and internal enclosure pressure
- Pressure fill valve
- Lifting eyes
- Keyhole mounting points

Each CM-V enclosure undergoes a production test that verifies that the enclosure is water-tight.

INDICATION LIGHTS AND COMMUNICATION PORT

The CM-V is supplied with bright LED lights for fault indication on any of the numbered circuits. A water-tight, tamper-proof RJ-45 port with padlockable cover is available for local interface with the controller's RTU.



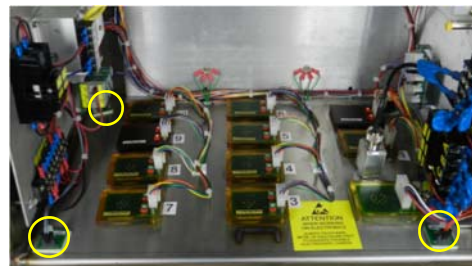
WATER-TIGHT WIRING ENTRANCES

All wiring entrances into the CM-V terminate to encapsulated connectors. Wiring entrance points are supplied with sealing caps that protect contacts from contamination should the external wires not be connected. Even without the caps in place, the potted connections prevent the entrance of water. External wires supplied by Cleaveland/Price are designed and manufactured to prevent the ingress of water.



TRUST BUT VERIFY

The CM-V enclosure is designed to insure its IP68 rating. To verify that the unit is water-tight, the enclosure has moisture detection sensors at each bottom corner that will activate an alarm should there be any accumulation of water within the control enclosure.



CM-V Dimensions

