

8PRN

Disturbance Recorder



A Compact Solution featuring up to **384 samples per cycle** with **Ethernet Accessibility**

Main Features

- Up to 16 analog channels (selectable: current/voltage).
- Current channels up to 25 A (125 A under fault).
- Voltage channels up to 360 V.
- No need for shunts or external devices.
- Sampling rate: from 10s/c to 384 s/c.
- Internal non-volatile memory.
- Records stored in COMTRADE format.
- 16 or 32 programmable digital inputs.
- 8 programmable digital outputs.
- LEDs to show comms. ports activity.
- 4 general purpose LEDs.
- Enclosure: 19" rack x 4U or 6U.

Versatile triggering and recording modes

- ✓ **Analog channels:** Threshold Exceeded, Gradient, Specific harmonic content, Total harmonic content.
- ✓ **Calculated frequency:** Threshold, Gradient.
- ✓ **Positive Sequence:** Threshold, Gradient.
- ✓ **Negative Sequence:** Threshold.
- ✓ **Zero Sequence:** Threshold.
- ✓ **Digital Channels:** Rising or falling edge.
- ✓ **Other:**
 - External trigger (cross-triggering).
 - Manual trigger from HMI.
 - Trigger via communications.
- ✓ **Recording modes:**
 - Continuous.
 - Separated.
 - Ignored.
 - Programmable description texts in recorded channels.



The diagram illustrates a multi-protocol network system architecture. It features a central stack of three 8PRN (8-Port Remote Network) units. These units are connected to a local PC via RS232 and to a switch via RJ45. The switch is also connected to a printer and a LAN PC. The 8PRN units are connected to a ZIV 4CCL Modem and a ZIV 4CCN Concentrator / Diffuser via F.O. (Fiber Optic) lines. The ZIV 4CCL Modem is connected to an RTC (Real Time Clock) and a GPS (Global Positioning System) unit. The ZIV 4CCN Concentrator / Diffuser is connected to a NMEA: Fiber Optic Star Network and an IRIG-B: Coaxial Bus. The diagram also shows a photograph of a person working at a computer, likely representing the user interface or data collection process.

- ✓ Better than 0.1% metering accuracy at full scale.
- ✓ Full scale value selectable.
- ✓ Current and Voltages.
- ✓ Power (S, P and Q).
- ✓ Frequency, $\cos \phi$.
- ✓ Sequence components.
- ✓ Harmonics.
- ✓ Phasors of every phase.

- External USB hard drive.
- Printer.
- Printer server.
- Ethernet switch for LAN with multiple **8PRN** units, printer and PC.
- Fiber optic concentrator to connect multiple **8PRN** units.
- Modem for remote access.

- ✓ Fault locator.
- ✓ Event recording.
- ✓ New communication program *ZivercomPlus®*.
- ✓ Oscillography analysis software.

- FTP access to oscillograph files.
- RS-232 configuration port (front).
- 2 External USB Hard Drive ports (front and rear).
- Full modem / FO communications port.
- Serial RS-232 / RS-485 / FO port.
- Ethernet 10/100 Base-T RJ-45 port.
- USB Printer port.
- Fiber optic port for cross-triggering.

- IRIG-B v.123 BNC port.
- NMEA fiber optic port.

[illegible]

- 2 Digital Inputs.
- 3 Analog Inputs.
- 4 Cross-Triggering
- 5 NMEA / IRIG-B
- 6 P1 / P2: Optic Fiber
- 7 [P1 / P2: RS232] [P2: RS485] [USB] [Ethernet]