

VU1 and VU 2 Vehicle Presence and Data Detector



KEY BENEFITS

- Field Proven Presence detection
- Field Proven Data acquisition
- Direct plug-in module for NEMA TS-1 & TS-2 and Type 2070 controller cabinets
- VU 2 is a 2-camera unit
- 24 outputs and 20 inputs via expansion modules or VU BIU
- System connection via VU COM (Ethernet)
- VIP Link Software via serial communication RS232
- Real-time video output on module
- Data storage on board

TRAFFIC DATA ACQUISITION

- Volume, speed, gap time, headway, occupancy, concentration, and classification
- All data available per lane

FLOW MONITORING

- Distinction between different types of traffic flow
- Speed drop and wrong-way drivers

LOOP EMULATION

- Pulse output similar to traditional loops in addition to traffic data.

TRAFFIC DATA ACQUISITION

The VU provides all relevant traffic data, such as volume, speed, gap time, headway, occupancy, concentration, and classification. The VU can even store data on board in non-volatile memory. It automatically distinguishes five types of traffic flow (levels of service) based on flow speed and zone occupancy. Within seconds it detects wrong-way drivers or sudden speed variations.

LOOP EMULATION

VU can emulate traditional double or single loop detectors. In addition to traffic data, it provides pulses similar to those provided by inductive loops.



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DIMENSIONS

- TS-2 compatible card rack units

SERIAL PORTS

- RS-232C service ports for setup, data collection, and firmware update

INPUTS

- Composite video 75 V 1Vtt CCIR/EIA
- Power Supply
- Reset and recall switch on front panel

OUTPUTS

- Analog video output with overlay of system information data and detection lines
- Auto diagnostic LED indicators
- VU 2 Main board: four optically isolated open-collector outputs
- Expansion modules VU IO2 & I/O4 2 or 4 digital in/outputs (with dip switches for selection of in/outputs)

CONNECTOR

- Double row 22 pins EDGE (NEMA TS-2-1992)

POWER SUPPLY & CONSUMPTION

- 10.8 to 26.5 VDC
- VU 2 with 200mA at 24 VDC
- VU 1 with 150mA at 24 VDC
- VU IO4 with 30mA at 24 VDC

ENVIRONMENTAL

- -29° F to +165° F (-34° C to +74° C)
- 0 to 95% relative humidity—non-condensing

PRESENCE & DATA DETECTION

- VU 1 monitors one camera. VU 2 monitors two cameras.
- VU 1 provides up to 24 presence detection zones. VU 2 provides up to 20 presence detection zones per camera.
- Each presence zone call can be delayed, extended, or combined with an input to inhibit the call.
- Queue length measurements and directional counts on the intersection.
- Combination of outputs and inputs using Boolean functions AND, OR, and NOT.
- The VU 1 provides eight data detection zones. The VU 2 provides four data detection zones per camera.
- Data: count, speed, classification, occupancy, density, headway, and gap time.
- Generation of alarm events such as: speed alarms (four service levels), speed drop, wrong way driver, queue length threshold and quality alarm.
- Double and single data loop simulation.
- Per zone, detection can be made direction sensitive.
- Single zones can be edited without disturbing detection.
- Each VU can control up to 24 outputs (four per board and 20 via the VU I/O extension boards) and 20 inputs (four for each of the five I/O extension boards).
- The VU stores up to two configurations per camera.
- Internal non-volatile memory database.
- The VIP link software handles:
 - Configuration upload and download
 - Data download (database or individual data monitoring)
 - Firmware upload via RS232 port
 - Event download

FLOW MONITORING

- VU monitors four to eight lanes flow speed between 0 and 100 mph.
- VU also monitors the zone occupancy of the detection area.
- VU automatically distinguishes five types of traffic flow.
- VU detects both wrong-way drivers and sudden speed variations within seconds.
- During set-up, alarm levels can be programmed for:
 - Speed
 - Speed drop
 - Occupancy
 - Image quality

