

231 / 232

Magnetic Vehicle Sensing Unit



FEATURES :

231 Probe

- Waterproof direct burial sensing element.
- Lead-In Cable is 75 - 100 ft. long.
- Eliminates need to cut & wind loops.
- Slimline Design.



232 Amplifier

- Vehicle Passage detection is provided.
- Time Delay option available.
- Slides into cabinet input card file.

231 / 232 Magnetic Vehicle Sensing Unit

The 231/232 magnetic vehicle sensing unit is a cost effective way to sense the passage of vehicular traffic. The unit consists of a magnetic sensing element or probe (231) and a dual channel sensor printed circuit module (232) that can accept two Model 231 probes.

The 231 is constructed of 3/4" PVC tubing. No active components are contained in this unit. All components are encapsulated within the tube which is then sealed. This prevents the entrance of moisture, salt or dirt. Recommended placement of this probe for maximum coverage is 1 to 16 inches below the surface of the roadway pavement centered in the lane or street in which traffic is to be detected. It can be buried directly or placed in a PVC conduit for later removal. It can also be mounted under bridge structures although sensitivity will be slightly reduced. The lead-in cable consists of a twisted pair 18 AWG wire with an overall PVC jacket. It will sense vehicular traffic up to 6 ft away from the sensing element at speeds from 3 to 80 mph.

The 232 card is inserted in the input file of a controller cabinet or can be ordered in a single channel shelf mount version. The 231 lead-in attaches to the 232 card file. The 231 / 232 combination produce a magnetic field in the roadway. When this is disturbed by the passage of a vehicle, the 231 / 232 will detect that vehicle and will provide an output to the traffic controller. Only metallic objects are sensed by the 232.

Now available from :

NOVA TECH, 184 Goose Lane, Tolland, CT 06084, Phn 860.871.4180, Fax 860.871.4187

231/232 SPECIFICATIONS:
Rev.7

POWER REQUIREMENTS

24 VDC @ 110 mA.

OPERATING MODES

Sensitivity is variable by two front panel rotary knobs.

Toggle switches provide sustained or momentary call on each channel.

LIGHTNING PROTECTION

Each Channel (232) :
Varistor Over-Voltage Protected
both sides of input to ground.

OUTPUT (232)

NPN- Open collector, 30 VDC @ 50 mA.
Optically Isolated.

OPTIONAL TIME DELAY (232T)

Two on board DIP switches allow user selectable delay following an output pulse. This eliminates multiple detection of a single vehicle. Adjustable from 0 to 3.75 secs in .25 sec increments.

DIMENSIONS

231 - 1.35" Diameter x 18"L.

232 - PCB : 6.875"L x 4.50"H x 1.1"W
(excluding handle)

LEAD-IN (231)

Two Conductor, Stranded, 18AWG, PVC Coated, Overall PVC/PE Jacketed Wire.
CALTRANS - 100ft., NYSDOT - 75ft.
Coil R <= 3000 Ohms, L = 20 H @ 120Hz
Environmental: -40C to +85C

STANDARDS

CALTRANS TEES2009.
NEMA TS 2-1998, Type A & C.
NYSDOT 6.2003, Fresno.

CONNECTIONS:

PIN	FUNCTION
A	DC GROUND
B	+ 24 VDC
C	NC
D	CHANNEL 1 INPUT
E	CHANNEL 1 INPUT
F	CHANNEL 1 OUTPUT (C)
H	CHANNEL 1 OUTPUT (E)
J	CHANNEL 2 INPUT
K	CHANNEL 2 INPUT
L	CHASSIS GROUND
M	NC
N	NC
P	NC
R	NC
S	NC
T	NC
U	NC
V	NC
W	CHANNEL 2 OUTPUT (C)
X	CHANNEL 2 OUTPUT (E)
Y	NC
Z	NC

Note Pins 1 thru 22 (on front) No Connection.
Mates with 44 terminal dual row, 0.156 spacing
Cinch Jones card edge connector 50-44A-30M or
Sullins EZM22DRXH.
Polarizing key between underlined pins.

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