DSP-262 Dual Channel Vehicle Detector

The Only Vehicle Detector You Will Ever Need!

Overview

The DSP-262 vehicle detector has been specifically designed to handle all traffic applications.

Working on virtually any size loop, the DSP-262 tunes itself automatically to the best operating frequency within the selected range. The DSP-262's inherent noise filtering algorithms allow it to work reliably in any electrical situation.

With its easy to understand front panel switches and built-in flexibility the DSP-262 is the most "user friendly" detector on the market today.

Sensitivity: Almost all traffic control applications can be handled with sensitivity set at NORMAL (level 4). The sensitivity DIP Switches (S1, S2, and S4) should rarely be moved from NORMAL. However, the Model 262 has seven sensitivity settings varying from a LOW of level 1 to a HIGH of level 7. Sensitivity 0 will disable the channel.

Sensitivity	S1	S2	S4	ΔL%	Response Time (ms) (Non-scanning)
0	Off	Off	Off	Off	Off
1	On	Off	Off	.64	0.5
2	Off	On	Off	.32	1
3	On	On	Off	.16	2
4	Off	Off	On	.08	4
5	On	Off	On	.04	8
6	Off	On	On	.02	18
7	On	On	On	.01	32

Pulse / Presence: With this switch turned on, the main output will be a 125 ms pulse each time a vehicle enters the loop detection area. If the vehicle remains within the loop for two seconds, the detector will automatically retune, making itself ready for the next vehicle to arrive. If this switch is turned off the detector will output presence.

Delay: Delay is the interval between vehicle arrival and output activation. Delay time can be programmed from 0 to 63 seconds in one second increments. During the delay interval, the CALL LED is flashed slowly. If the vehicle leaves before the delay interval times out, the output will not occur.

Extension: Extension is the interval after vehicle exit and output deactivation. Extension time can be programmed from 0 to 15.75 seconds in quarter second increments. During this interval, the CALL LED is flashed rapidly. If another vehicle arrives before the interval times out, the output will not be dropped.

Frequency: One of four operating frequencies can be selected by using the front panel DIP switches: FREQ1 and FREQ2.
NOTE - Changing any DIP switch setting automatically resets the detector, which cancels the call output.

Fail Safe Operation: In the standard fail safe mode, the main output is normally energized and will de-energize for either of the following conditions: vehicle detection or loop failure. The relay version of the DSP-262 will place a call during power failure as well.

Features

- **Loop size:** Works on in-ground inductive loops from 50 to 2000 microhenries.

- **Fail safe operation:** The main solid-state output is configured to output a call whenever the loop circuit has failed.

- **Indicators:** Separate "Detect" and Fault" LEDs for each channel.

- **Sensitivity:** Seven sensitivity settings with sensitivity 0 indicating the channel is off.

- **Frequency:** Automatically tunes within one of four operating ranges.

- **Main detection output:** Factory set to be fail safe and can be programmed to output either presence or pulse.

- **Loop failure:** If the loop fails, the fault indicator codes the failure. If the loop recovers, the fault indicator will turn off.

- **Min presence:** A minimum presence of 125 ms can be programmed by setting jumper J1 on the PC board. This feature ensures that all presence outputs (even on high-speed arterials) will be at least 125 ms.

- **Programmable Timing:** Front panel programmable timing of delay and extension.

- **External reset:** The entire detector may be externally reset by holding pin C on the edge connector low for 15 µs.

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Indicators:

The green FAULT LED shows the following status:

Normal	On	Delay	Blinks slowly
Loop open	1 flash/second	Call	On
Loop shorted	2 flashes/second	Extension	Blinks fast
Intermittent loop	3 flashes/second	No Call	Off

The red DETECT LED shows the following status:

NEMA – TS-2: TS-2 outputs are included on Pins 7 (Channel 1) and Pin 20 (Channel 2)

Output Ratings: Solid-State – 50 mA maximum, 30 VDC maximum. All outputs are optically isolated.

Power: 24 VDC, 100 mA maximum

Dimensions: H – 4.5" (11.43 cm) W – 6.875" (17.46 cm) D – 1.12" (2.84 cm)

Connector: Standard 2 x 22 pin edge card connector with key slots located between B & C, E & F and M & N.

Pin assignments are listed below:

1 Ch 1 Delay Inhibit	12	A DC (-) Common	N
2 Ch 2 Delay Inhibit	13	B DC (+) Common	P
3	14	C Reset	R
4 Loop 1	15	D Loop 1	S
5 Loop 1	16	E Loop 1	T
6	17	F Output 1 Collector	U
7 Ch 1 TS-2 Status	18	H Output 1 Emitter	V
8 Loop 2	19	J Loop 2	W Output 2 Collector
9 Loop 2	20 Ch 2 TS-2 Status	K Loop 2	X Output 2 Emitter
10	21	L Chassis Ground	Y
11	22	M	Z

Operating Temperature: -35°F to 165°F (-37°C to74°C)

Storage Temperature: -67°F to 185°F (-55°C to 85°C)

Humidity: 0 to 95% relative

Ordering Information: Standard part numbers are below:

DSP-262-x

  x = S = 24 VDC, solid state outputs, timing (NEMA)

  x = R = 24 VDC, relay outputs, timing (NEMA)

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Specifications are subject to change.
DSP-262_CUT_A   2/13/14