DigiSpec

**For Outdoor and Indoor Applications**

# DS1-PL Digital Video Motion Detector

**Foreign and domestic governments along with private contractors worldwide depend on the DS1-PL to secure areas with people or vehicles. Powerful and sophisticated real time video processing achieves 52MiPs of computing power. The straight-forward design allows for easy installation and programming for all applications.**


## Standard Features

### Unit Configuration

The ***DS1-PL*** can be configured to operate in 1 of 5 different modes: Motion, Motionless, Direction Detection, Musuem Mode or PTZ


### Motion Detection Parameters

The ***DS1-PL*** has 5 motion detection parameters for true outdoor performance. Up to 8 zones (A-H) can be defined independently with the following parameters which makes the ***DS1-PL*** equal to 8 VMDs in one unit using one camera view.

1) **A pattern grid** of 288 definable areas overlay the video image when setting up motion detection. Each of these areas on the grid can be independently turned on or off. This creates inactive areas where motion detection is not needed and active areas where motion is detected.

2) **Tracking** or the target velocity setting reduces false alarms from transient or unwanted motion that exceeds the speed of the desired motion. This feature can ignore lightning, birds flying through the scene or fast moving vehicles on a roadway while detecting human walking or running motion.

3) **Target Size** setting allows for alarming based on a minimum required object size. This allows the unit to reliably distinguish between people and small animals.

4) **Sensitivity** settings compensate for low light or low contrast situations. This assures reliable operation in a variety of lighting conditions.

5) **Direction Sensing** can be programmed by pairing zones to achieve up to four directions (A>B, C>D, E>F, G>H)

### Viewing Modes

The ***DS1-PL*** offers several viewing modes that reduce viewing fatigue and facilitate the assessment of on-screen information.

**Trace Mode** outlines moving objects with a “sparkle effect” and is available in four variations:

1) **Normal Trace Mode** - an instantaneous sparkle effect view of the motion.

2) **Trace Memory** - allows the trace to accumulate on-screen continuously.

3) **Trace Memory / F**- flashes the accumulated memory allowing to view the underlying scene clearly.

4) **Trace Memory / S** - this mode accumulates the memory on-screen in 1 second intervals to clearly see the target outline and motion direction.

**Blackout Mode** leaves the screen black except during alarms, thus reducing viewing fatigue.

**Blackout and Trace Modes** can be combined to show only a black background overlayed with the trace caused by movement in the screne.

## Motion Detection Setup

Special on-screen indicators help determine optimal motion detection settings for each application.
**Pixel Count per Zone** shows the number of pixels being "violated" at the current sensitivity setting. This number changes with the motion in the video scene, thus allowing the operator to see what kinds of activity cause an alarm.
**Pixel Count All Zones** shows the total number of pixels violated of all zones added together.
**Alarm Count by Zone** displays a continuous update of the number of alarms for each active zone.

## More Features

Analyzes video at the pixel level
262,144 detection points
Requires no external camera synchronization
Blue Screen Interative On-Screen Menus
160 Entry Alarm / Event Log
Red Screen and Audible Alarm on Video Loss
3 Daily Timers; On / Off, Weekend & Holiday Settings
Buzzer Settings for Alarm and Motion Detection
Date/Time with all International Standards
Automatic Daylight Savings Time adjustment
16 Character Camera Titling
Date / Time Backup when power is lost
Internal Day / Night Timer or externally switched
8 Individual Zone Alarm Outputs
1 Global Form C alarm output - NC / NO with common
Pre-Trigger output to signal before valid motion alarm
1 Alarm Input ("AND/OR/Enable/Disable" Selectable)
NTSC/RS-170A, PAL/CCIR, and SECAM Compatible

## Specifications

**Detection Parameters**
**Size Settings;** 0 - 65,535 pixels
**Sensitivity Settings;** 0 – 99 percent
**Tracking Settings;** 0 – 8 seconds, in 0.1 second intervals
**Zone Pattern Grid;** 288 Zones (NTSC or PAL)
**Video Input;** BNC 1 V P-P, 75 ohm terminated
**Video Output;** BNC 1 V P-P, 75 ohm term. or unterminated
**Alarm Outputs;** Time; 0-99 seconds
8 Individual zone outputs, open collector transistor (20ma@5VDC)
1 Global Form C output, either NO/NC & Com (1A Max at 12VDC)
**Alarm Input;** Hi-Z 100K ohm 12VDC Max.
**Programming;** On-Screen Interactive with momentary pushbuttons for selection, RS-232, or optional Ethernet LAN
**Backup Program Memory;** Non-Volatile EEPROM memory
**T/D Backup;** 4 days via Super Capacitor DSI-SPL card, 90 days with NiMH DS1-PL (w/o power connected)
**Size;** 230mm(D)x130mm(W)x38mm(H)/9"(D)x51/8"(W)x1.5"(H)
**Weight;** 1 lb / .46 Kg
**Construction;** Computer Beige Metal Case
**Warranty;** 2 year parts and labor
**Power;** 7-15VDC 3.3W Max 12VDC @ 160mA Nominal 12VDC @ 220mA when Alarming and Buzzer sounding.
Connector: 2.1mmx5.5mm DC Power Jack
**RS-232 or Ethernet LAN** Programming via PC for all Setups, Functions, printing Event Log, status outputs, upload, download with included **DSVMD** Software. **Addressable:** 0-127

**Status Indicators;**
**Power** – Green LED (Solid On when power applied)
**Alarm Mode** – Red LED (Solid On when enabled, OFF when disabled, and Flashing when alarm active)
**Setup** – Yellow LED
**Day / Night** – Green LED (On Day mode, OFF Night mode)
**LOG** – Yellow LED (On when LOG is being displayed)

## Unit Configurations

### Motion Detection or Motionless Detection

Up to 8 sets of motion detection parameters can be programmed and independently assigned to any definable area(s) of the pattern grid. Reference frame updated to compensate for outdoor conditions.

### Direction Detection

Movement between one to four pairs of zones can be configured on the same screen to achieve direction detection.

### Musuem Mode

An object can be selected and any movement of the object will cause and alarm, but movement around the object will not. Reference frame fixed or manually updated to detect even the slightest movement.

### PTZ Mode

The DS1-PL detects when the entire camera view is moving and disables the VMD until the image becomes stable and re-acquires the image and automatically enables the VMD.

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