# **VEGIS** COPELAND

## PT Series Low-Amp Time Delay Relay

**Prevents** dead batteries from add-on equipment, maximizing operational readiness and saving maintenance costs.

**Delivers** power to equipment after engine off or at end of shift (video downloads), automatically timing off and optionally if battery voltage is low.

**Protects** sensitive on-board electronics via under-voltage and over-voltage shutdown.













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**Ultra-Low Power Draw** eliminates vehicle downtime due to dead batteries. Lowest off-state current draw (1.3 mA).



Flexible Control Options via Ignition Key, alternator voltage sense, or both.



Diagnostic Feedback via on-board multicolor LEDs



Meets Stringent OEM Standards for electrical transient self-protection



Adjustable OFF Time Delay: 15 minutes to 4 hours. 5 second test mode setting for quickly verifying installation.

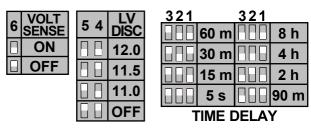


**Bullet-proof Construction:** Sealed unit, high temperature materials allow mounting anywhere on vehicle. Integrated thermal overload protection



4 Year Industry Leading Warranty

#### System Diagram / Dip Switches



1) Use of Ignition Key On signal strongly recommended for all first responder installations to ensure rapid relay ON and maximize vehicle up-time in adverse situations.

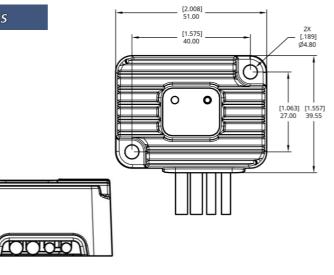
2) Delay between Off Trigger and Relay OFF set with Dip Switches 1-3. Time Delay per table above

3) If DS1 through DS3= Off, Time Delay = 5 seconds for testing and operational verification

4) Low Voltage protection set with Dip Switches 4-5

5) Input line voltage sense trigger enabled for ON and OFF Time Delay with Dip Switch 6

#### Dimensions



6.50 TYP

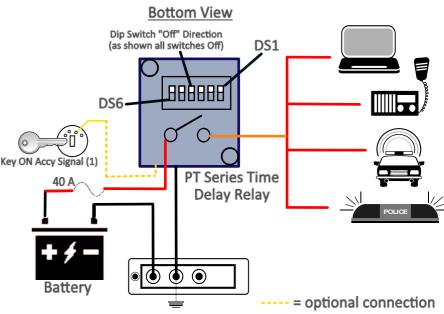
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*Specifications* 

Nominal Voltage	12 Vdc	
Voltage Range	8 - 18 Vdc	
Max Current / Installed Fuse	30 A / 40 A	
Device Current Draw, ON State	15 mA	
Device Current Draw, OFF State	1.3 mA	
ON Voltage Threshold (when used)	13.0 Vdc	
OFF Voltage Threshold (when used)	12.7 Vdc	
Low Voltage Protection Range	11.0 - 12.0 Vdc	
Housing Material	Polycarbonate	
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Input Wire Size (Red)	12 AWG / 18 in.	
Input Wire Size (Red)	12 AWG / 18 in.	
Input Wire Size (Red) Output Wire Size (Orange)	12 AWG / 18 in. 12 AWG / 24 in.	
Input Wire Size (Red) Output Wire Size (Orange) Ignition Wire Size (Yellow)	12 AWG / 18 in. 12 AWG / 24 in. 18 AWG / 24 in.	
Input Wire Size (Red) Output Wire Size (Orange) Ignition Wire Size (Yellow) Ground Wire Size (Black)	12 AWG / 18 in. 12 AWG / 24 in. 18 AWG / 24 in. 18 AWG / 24 in.	



### Methods of Operation

Relay closes immediately if:

- 1) Key Ignition Input > 8 Vdc or
- 2) V\_sense = On and Input Stud Voltage > 13.0 Vdc

Relay opens after Time Delay setting if:

- 1) Key Ignition Input < 8 Vdc <u>and</u> V\_sense = Off <u>or</u>
- 2) Key Ignition Input < 8 Vdc and V\_sense = On
- and Input Stud Voltage < 12.7 Vdc

UV / OV Lock (Under-voltage / Over-voltage Protection):

 If ON, will turn OFF Relay if Input Stud Voltage < LV DISC Setting or > 17.0 Vdc for 15 Sec
Will turn OFF relay regardless of Key ON Accy Signal



DISCONNECT BATTERY FROM POWER DISTRIBUTION SYSTEM BEFORE INSTALLING PRODUCT TO PREVENT RISK OF ELECTRICAL SHOCK AND PRODUCT DAMAGE

Part Numbers	Retail	Bulk
PT Series 30 Amp Time Delay Relay	5601	5601B
* Contact factory for custom		

\* Contact factory for custom configurations including voltage thresholds, time delay settings, or response to inputs. Low minimum quantities.



COPELAND

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marine / rv van / 4x4 upfitting

emergency vehicle

work truck