

## Edco PC642 Series

Zone/Loop/Data

The Edco PC642 Series surge protective device, (SPD) is a two-pair (four wire) module implementing three-stage hybrid technology. This SPD addresses over-voltage transients with gas tubes and silicon avalanche components. In addition, sneak and fault currents are mitigated with resettable fuses (PTCs). The PTCs increase resistance several orders of magnitude when over-currents exceed safe levels. A normal state resumes when over-currents are removed. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Edco PC642 card edge is gold-plated, double sided and is designed to mate with the the Edco PCB1B-WKEY gold-plated female terminal connector (sold separately). When snapped together, the data circuits “pass thru” the protector in a serial fashion from the four “Field Side” terminals to the four “Electronics Side” terminals. Terminals 1 or 10 of the PCB1B must be attached to Building-Approved Ground.



### General Technical Specifications

Maximum Operating Voltage	5-250 VDC
Clamping Voltage	8-300 VDC
Operating Current	0.15 A
Peak Surge Current	10 kA (8 x 20 μs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 20 MHz
SPD Technology	GDT, SAD, w/ Series PTC
Connection Type	Terminal block w/compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (Inches)	2H x 1W x 2.5L (PC642 + Base)
Weight	1 oz
Certifications	UL 497B

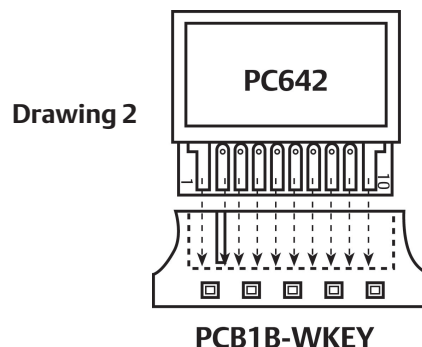
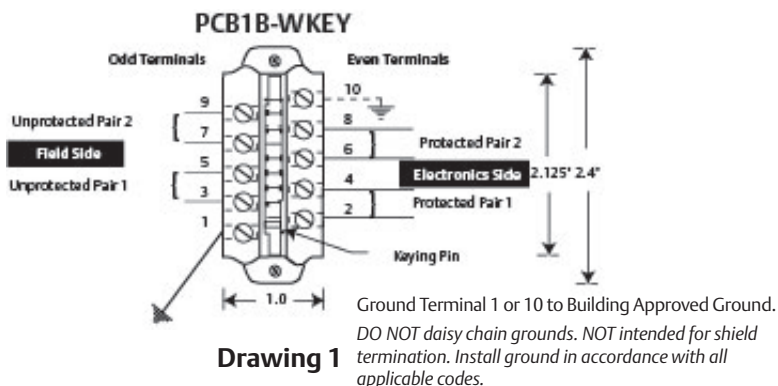
### Features

- Three-stage hybrid protection
- Sneak/fault current protection
- Resettable fuses – PTCs
- Low capacitance option
- Plug-in module
- Requires Edco PCB1B-WKEY base
- Fast response time
- UL listed 497B
- 5 year warranty

**Caution:** The hybrid design of this product includes series resistance. Do not place this product in service on any signal line capable of supplying more than 150 milliamperes continuously.

# Installation Instructions

## Terminal Assignments



## Read and Understand These Instructions

### Caution:

- These protectors are intended for indoor use on communication loop circuits which have been isolated from the Public Switch Telephone Network.
- The communication loop circuits shall not be exposed to accidental contact with the electric light or power conductors.
- The protectors shall be installed per the applicable requirements of the National Electric Code, ANSI/NFPA 70.
- Measure DC operating voltage of system to insure it does not exceed the rating of the selected surge device (5-250 VDC depending on the device).

### Installation:

1. Turn off power to circuit to be protected prior to installation.
2. Screw mounting base #PCB1B-WKEY (ordered separately) in desired location preferably as close to protected equipment as possible and in close proximity to a building approved grounding point using (2) #4 screws. PCB1B may also be DIN rail mounted using optional DIN clip assembly #11604KIT-PC (ordered separately).
3. Attach field side pairs (26-10AWG) to positions 3/5 and 7/9, attach electronics side pairs (26-10AWG) to positions 2/4 and 6/8. Attach ground wire (10AWG) to positions 1 or 10 on base. **See Drawing 1.** Torque wires to 44 lbf/in [8kgf/cm].
4. Insert PC642C module into keyed PCB1B-WKEY base. **See Drawing 2.**
5. Apply power to protected circuit.

## Ordering Information

### APPLICATIONS:

RS485, RS422: PC642C-008LC & PCB1B-WKEY  
 RS232: PC642C-036LC & PCB1B-WKEY  
 E-NET, 10 BASE T: PC642C-036LC & PCB1B-WKEY  
 4-20ma: PC642C-036LC & PCB1B-WKEY

### OPTION:

DIN Rail Kit Available  
 Order Part # 11604KIT-PC

### How to Specify the Appropriate Model

PC642C-		
Max. Operating Voltage	Clamping Voltage (1000v@1mA)	
5VDC	8VDC	008LC
30VDC	43VDC	036LC
36VDC	43VDC	043LC
43-250VDC	300VDC	200LC

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### Emerson Network Power Contact information

[www.EmersonNetworkPower.com/surge](http://www.EmersonNetworkPower.com/surge)

### Headquarters

Surge Protection  
 100 Emerson Parkway  
 Binghamton, NY 13905  
 T: (607) 721-8840  
 T: (800) 288-6169  
 F: (607) 722-8713  
 E: SurgeTech@Emerson.com

