Edco PC642 Series

Zone/Loop/Data

The Edco PC642 Series surge suppressor is a two-pair (four wire) module implementing three-stage hybrid technology. This module 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 module 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.
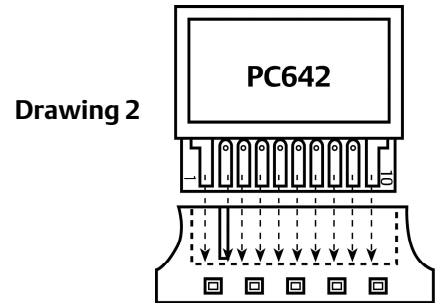
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Installation Instructions
Terminal Assignments
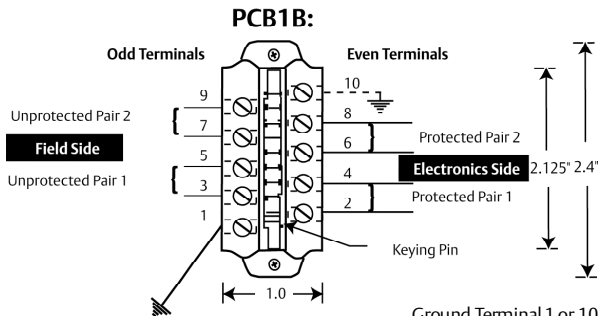
PCB1B:

Drawing 1

Ground Terminal 1 or 10 to Building Approved Ground.

DO NOT daisy chain grounds. NOT intended for shield termination. Install ground in accordance with all applicable codes.

Drawing 2

PC642

PCB1B-WKEY

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 #11602KIT-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)	
5 VDC	8 VDC	**008**
30 VDC	43 VDC	**036**
36 VDC	43 VDC	**043**
43-250 VDC	300 VDC	**200**

LC	Low Capacitance, Line-to-Line, Line to Ground	008, 036, 043 models only
D	Line-to-Line protection only	008, 036, 043 models only
	Line-to-Ground	200 models only

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