

Surge Protective Device

Technical Documentation



Model 175 unit with PCB1BWKEY base

The ASCO Model 175 Series surge protective device, (SPD) is a two-pair (four wire) module implementing three-stage hybrid technology. It is ideally suited for low voltage signal line protection in industrial environments. This SPD addresses overvoltage transients with gas tubes and silicon avalanche diodes. In addition, overcurrents are mitigated with self resettable PTC fuses which increase resistance several orders of magnitude when overcurrents are above normal levels. A normal state resumes when overcurrents dissipate. The ability to self-restore in this manner significantly increases suppressor performance and survivability.

The Model 175 card edge is gold-plated, double sided and is designed to mate with the PCB1BWKEY Base that has a gold-plated female terminal connector. When snapped together, the data circuits pass through the protector from the four field side terminals to the four equipment side terminals.

General Technical Specifications

Operating Voltage	1-36 VDC
Breakover Voltage	43 VDC
Maximum Operating Current	150mA
Peak Surge Current	10 kA (8 x 20 μs)
Frequency Range	0 to 20 MHz
Insertion Loss	< 0.1 dB at 50 MHz
SPD Technology	GDT/PTC/SAD
Connection Type	Terminal Block, with compression lugs Terminals accept up to 10 AWG
Operating Temperature	-40°C to +85°C
Dimensions (in / mm)	2.0 in. H x 1.0 in. W x 2.5 in. L [50.8 x 25.4 x 63.5 mm] (175 module + PCB1BWKEY Base)
Weight (oz / kg)	1 oz [0.03 kg]
Certifications	UL 497B

Key Specs

- **Voltage:** 1-36 VDC
- **Current:** 150mA
- **Connection:** Modular;
Hardwire into base
- **Mounting:** Plug into
keyed base PCB1BWKEY

Features

- Three-stage hybrid protection
- Sneak/fault current protection
- Self resettable fuses – PTCs
- Low capacitance
- Plug-in module
- <1 Nanosecond response time
- 5 year limited warranty

Certifications

- UL 497B

Ordering Information

MODEL

Former Model Name

APPLICATION

175D008S10KLPCB0

Edco PC642C-008LCKIT

8 VDC (1-5 VDC Operating Voltages)
3 Stage L-L & L-G Hybrid
(Low Capacitance)
PCB1BWKEY Base Included

175D043S10KLPCB0

Edco PC642C-043LCKIT

43 VDC (5-36 VDC Operating Voltages)
3 Stage L-L & L-G Hybrid
(Low Capacitance)
PCB1BWKEY Base Included

ACCESSORIES

11604KITPC

DIN Mounting Kit for PCB1BWKEY

APPLICATIONS

MODELS

RS485, RS422

175D008S10KLPCB0

RS423

175D008S10KLPCB0

RS232

175D043S10KLPCB0

Ethernet

175D043S10KLPCB0

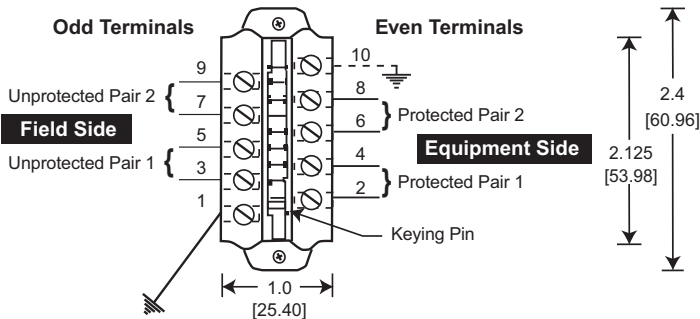
4-20mA signal line

175D043S10KLPCB0

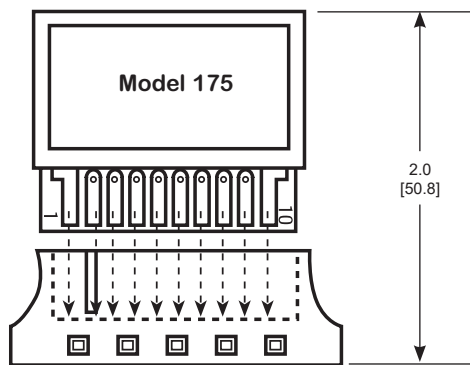
Dimensions (in. / mm.)

DRAWING 1

PCB1BWKEY Accessory Terminal Assignments



DRAWING 2

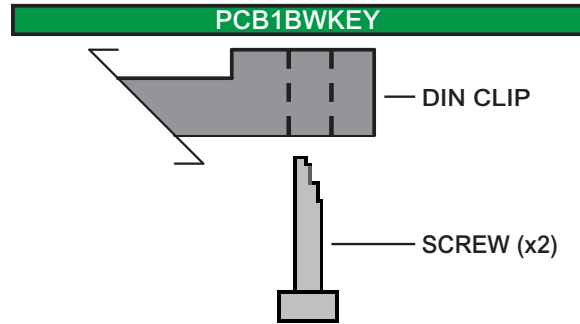


PCB1BWKEY

Mounting Kit Installation and Dimensions



INSTALLATION



DIMENSIONS

