RAK SERIES DATA LINE SURGE PROTECTION

The RAK series of Rack Mount and Wall Mount Standoff protectors will ensure the reliable operation of networked equipment connected to 10BASE T & 100BASE T Ethernet, PoE, Cable, CCTV, RS422, RS232, ISDN, T1, DDS, Dial-Up and most other communication interfaces.

Ideal For 19" Relay Racks Supporting LAN Hubs, Concentrators, and Multi-Port Interfaces.

RAKs OFFER

- State-of-the-art, avalanche diode and thyristor technology
- Compact, in-line installation
- High speed, high energy handling capability
- Low shunt capacitance to reduce signal loss

YOU RECEIVE

- Affordable, superior, equipment protection
- Improved reliability and maximized system up-time
- Protection at the interface card
- Adaptability to most industry applications

Transient surges can enter electronic equipment through any pathway provided. Facilities with reliable AC power protectors can still experience surge-related, system downtime. Transient surge energies from sources such as inductive load switching, ground loop currents and electrostatic discharge are clamped by AC protectors into the shared communication ground, resulting in damage to expensive communication hardware.

The RAK Series includes 16 port, 19" relay rack protectors as well as 16 and 32 port, 5" standoff units for wall mount protection or environments where 19" relay rack space is limited. A wide variety of communication interfaces are supported that include 10BASE T and 100BASE T Ethernet, ATM155, CDDI, 100VG-AnyLan, RS232, RS422 and high speed LAN/WAN applications. For telco requirements we offer protection for Dial-up, T1, DDS, ISDN and other lease line environments. These devices exhibit an extremely fast response time of less than 5 nanoseconds.

All these features make RAK protectors the most cost effective and versatile devices of their kind available today. Whether you need to protect a single network concentrator, or an entire relay rack full of voltage sensitive equipment, Cylix RAK series protectors are an easy, cost effective solution to overvoltage problems.

CE   MADE IN THE USA

CYLIX ™
DATA LINE SURGE PROTECTION

	10/100BASE T RS422, RS485, RS423, Ethernet	RS232	ISDN, T1, DDS (fused)	Dial-up/ Modem/Fax (fused)	Power over Ethernet	CCTV	Cable TV/Satellite
STD. CLAMP VOLTAGE	7.5 VOLTS	18 VOLTS	60 VOLTS	240 VOLTS	Pins 1, 2, 3, & 6 - 7.5 volts Pins 4, 5, 7, & 8 - 60 volts	7.5 VOLTS	90 VOLTS
PEAK PULSE CURRENT 10/1000 us s.c. wave form @Vcl	132 AMPS	60 AMPS	50 AMPS	75 AMPS	Pins 1, 2, 3, & 6 - 132 amps Pins 4, 5, 7, & 8 - 50 amps	132 AMPS	20ka (8/20 msec waveform)
RESPONSE TIME	— — — — — — — — — — LESS THAN 5 NANOSECONDS — — — — — — — — — —						
MAXIMUM SHUNT CAPACITANCE	<40pF	<40pF	<75pF	<95pF	<25pF (Ethernet lines only)	<30pF	1 pF

ELECTRICAL SPECIFICATIONS (Subject to change without notice)

		10/100BASE T, RS422, RS485 RS423, Ethernet	RS232	ISDN, T1, DDS (fused)	Dial-up/ Modem/Fax (fused)	Power over Ethernet	CCTV	Cable TV/Satellite
16 port flush mount unit (Figure A)	All Pins	RAK16-E RAK16-E-C5E	RAK16-T	RAK16-B	X	RAK16-PoE-60V	X	X
	Center 2 Pins	X	X	X	RAK16-G	X	X	X
16 port stand-off unit (not shown)	All Pins	RAK16-E-SO RAK16-E-C5E-SO	RAK16-T-SO	RAK16-B-SO	X	X	X	X
	Center 2 Pins	X	X	X	RAK16-G-SO	X	X	X
32 port stand-off unit (not shown)	All Pins	RAK32-E-SO RAK32-E-C5E-SO	RAK32-T-SO	RAK32-B-SO	X	X	X	X
	Center 2 Pins	X	X	X	RAK32-G-SO	X	X	X
16 port flush mount unit (Figure B)	Coax	X	X	X	X	X	RAK16-BNC	RAK16-CMS
16 port flush mount unit - front accessible modules (Figure C)	X	X	X	RAK16-T1-1U [1]	X	X	X	X

SYSTEM APPLICATION AND MODEL NUMBER (Special Configurations Available)
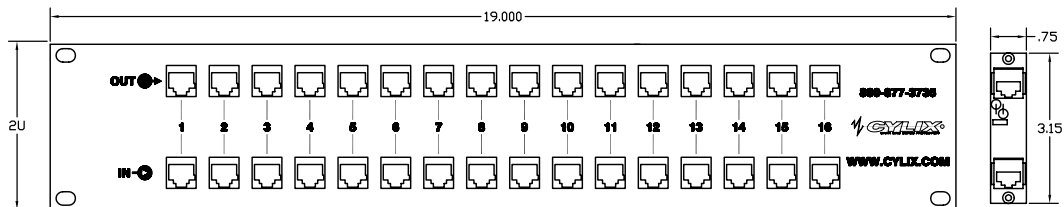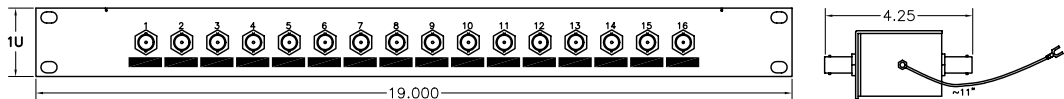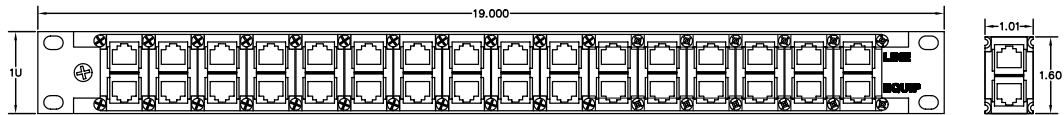
[1] UL LISTED

FIGURE A

FIGURE B

FIGURE C

INSTALLATION

To install, insert the protector in series between the incoming communication line and the I/O port of the equipment to be protected. The protector ground wire must be connected to the metal chassis of the equipment being protected. Units should be installed at both ends of the data cable for the most effective protection.

CAUTION!

Ground wire <u>must</u> be grounded directly to the metal chassis of the equipment being protected. The equipment chassis <u>must</u> be connected to earth through a properly grounded AC power receptacle.

CYLIX CIRCLE OF PROTECTION WARRANTY

The Cylix Corporation offers our "Circle of Protection" Warranty which includes a $25,000 Connected Equipment Guarantee, 5 Year Replacement Program and a Limited Lifetime Warranty. This warranty applies only to serialized products registered with The Cylix Corporation and is subject to certain disclaimers and limitations. For a complete warranty statement, please visit www.cylix.com

All specifications and dimensions are subject to change without notice.
Cylix Corporation 5/05