OnLine® J Series Communication Line Protectors: provide solid state communications line protection designed to protect 21st century applications that use integrated circu as a component of their operation. From electronic commerce to seventh generation PBX environmen the J Series family will meet your demanding protection needs.

Eliminates harmful transients

System lockups, dropped calls, mis-dials, system memory loss, "no trouble found" service calls, power outages, shortened component life — these problems all result from high frequency interference. This interference can originate outside the premises in the form of lightning induced noise, or it can occur inside when the overall system grounding is inadequate.

ONEAC OnLine protectors prevent these fast-edged impulses from entering your system, yet allow lower frequency ring voltages and signals to pass through unobstructed. This unique ability to discriminate between harmful and desired signals allows OnLine protectors to suppress this interference more accurately at lower voltages.

But I already have protection

ONEAC communication line protectors feature a more robust design. Using solid state technology, they are better able to withstand current and voltage surges than conventional gas tube protectors commonly found at the network interface. They also include self-resetting sneak current protection — eliminating the cost and downtime of replacement due to nuisance failures.

Your bottom line

By removing electrical noise, ONEAC improves system reliability. Look at actual evidence. Switching over to a protection scheme using OnLine protectors with ONEAC power conditioners report an over 50% reduction in total trouble calls; 83% fewer service calls due to hardware problems; 70% fewer system resets; and 43% fewer calls in which no trouble was found. Reducing maintenance dispatches and improving customer service means improved earnings.

Ultimate assurance

Leading companies employ ONEAC OnLine communication line protectors in their installations for good reason. OnLine protectors provide greater assurance of system uptime and lower service costs than conventional protectors.

- **Robust/solid state overvoltage protection:** lasts longer in the field.
- **Patented transient filtering:** allows exceptionally low let-through performance for optimum protection of electronic systems.
- **Self-resetting sneak current protection:** eliminates overcurrent problems without creating unnecessary fuse replacements.
- **100A surge impulse design:** provides longer lasting protection.
- **5-year warranty:** the best assurance of product quality and performance in the industry.
- **Simple installation:** convenient ground connection and wall mounting make installation a snap.
- **Models available for analog, digital and data lines.**
- **Safety Approvals:** UL listed Primary (497), UL listed Secondary (497A), and cUL.

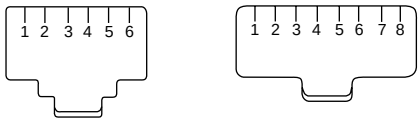
ONLINE J SERIES COMMUNICATION LINE PROTECTOR: Specifications

For analog, digital or ISDN service

Installed between the demarcation point and point of use, J Series communication line protectors eliminate the possibility for noise generated on outside telephone lines to enter systems through T1 connections, modems or faxes.

Application	Model No.	Pairs Protected
Analog: Standard Service — Trunk Lines, Analog OPX Stations with Ring Signal		
6 position, 2 wire, 1 Pair	RJ-AP11	(3,4)
6 position, 4 wire, 2 Pair	RJ-AP14	(3,4; 2,5)
8 position, 8 wire, 4 Pair	RJ-AP45	(1,8; 2,7; 3,6; 4,5)
Analog and Digital — Services without ring signals		
6 position, 2 wire, 1 Pair	RJ-DP11	(3,4)
6 position, 4 wire, 2 Pair	RJ-DP14	(3,4; 2,5)
8 position, 8 wire, 4 Pair	RJ-DP45	(1,8; 2,7; 3,6; 4,5)

Jack Openings

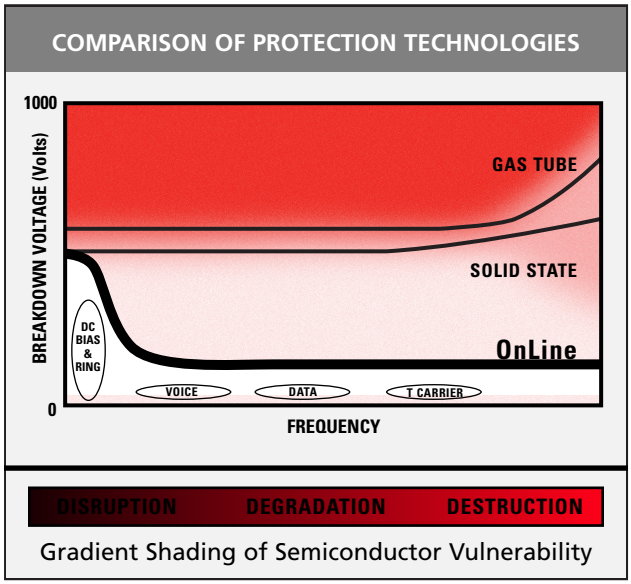


6-position (for RJ 11/14)

8-position (for RJ 45)

ONEAC Breaks the "Ring Voltage Barrier"

Conventional protectors (gas tube or solid state) are designed to clamp above the operating DC bias and the ring voltage level. The OnLine's ability to differentiate signals based on frequency permits the desired signals to pass while preventing transients from damaging semiconductor-based electronics.



SERIES	RJ-AP (analog)	RJ-DP (digital)
Impulse Voltage Performance with 10/1000µS, 1500V, 100A - line to line	150V typical	70V typical
DC Breakdown Voltage - line to earth	320V typical	78V typical
Response Time	<1ns	<1ns
DC Holdover @ 25° C, 20 ms max	≥150mA	≥150mA
On State Voltage with 1 Amp RMS	<5V	<5V
Capacitance		
@ 50VDC, 5VAC, 1KHz	<200 pf	<200 pf
Insulation Resistance	>100 MΩ	>100 MΩ
Fused	1A	1A
Service Life with 10/1000µS		
@ +/- 10 Amps	Unlimited	Unlimited
@ +/- 100 Amps	Unlimited	Unlimited
Resettable Overcurrent Protection (sneak current) @ 25° C	300 mA (resettable)	300 mA (resettable)
UL Listings	497, 497A	497, 497A
Storage Temperature	-40°C to 85°C	-40°C to 85°C
Operating Temperature	-40°C to 65°C	-40°C to 65°C

Note: Screw terminals and "110" punchdown versions are available in a hardwired configuration for the various applications listed above. Please contact your sales representative or ONEAC Customer Support at 1-800-327-8801 for details.

Y2K compliant
All ONEAC-manufactured products are Y2K compliant.

ONEAC is a UL/BSI registered corporation — Certification No. A2900

A Chloride Power Protection Company

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OnLine® J Series Communication Line Protector Applications for Hardwired:

Some face persistent system problems, despite their use of conventional communication line protectors. Others face performance expectations that allow zero tolerance for downtime. J Series communication line protectors are specifically engineered to satisfy these demanding voice and data applications, whether for analog, digital or ISDN service.

Ultimate assurance of system reliability

Leading telecommunications companies employ ONEAC OnLine communication line protectors in their installations for good reason: because OnLine protectors provide greater assurance of PBX and Key system uptime and lower service costs than conventional protectors.

Eliminates harmful transients

System lockups, dropped calls, mis-dials, system memory loss, "no trouble found" service calls, service outages, shortened component life — these problems all result from high frequency interference. ONEAC OnLine protectors prevent these fast-edged transients from entering your system, yet allow lower frequency ring voltages and signals to pass through unobstructed. This unique ability to discriminate between harmful and desired signals allows OnLine protectors to clamp accurately at lower voltages than others.

Last longer on the job

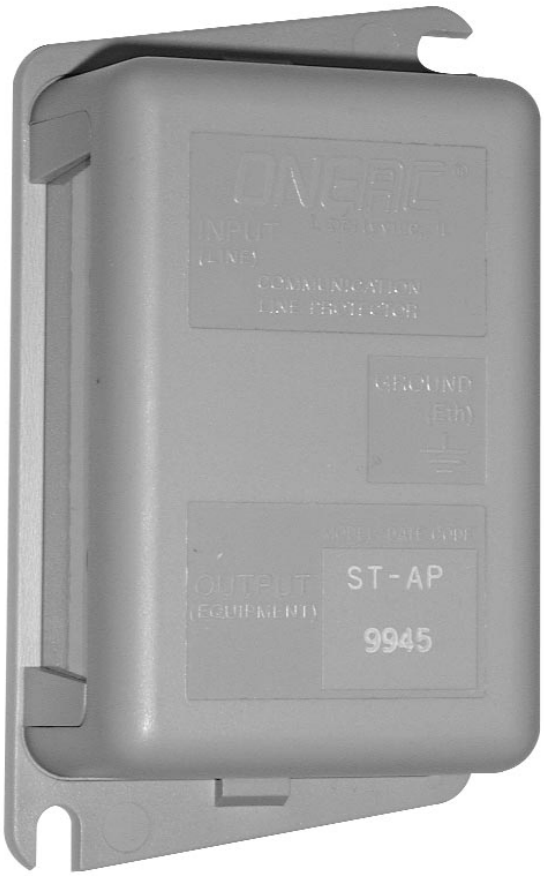
ONEAC communication line protectors feature more robust design than others so they're better able to withstand current and voltage surges. They also include self-resetting sneak current protection — that eliminates the cost and downtime of replacement due to nuisance failures.

Proven to reduce service costs

By removing electrical transients, ONEAC improves system reliability. Look at actual evidence — Installers switching over to a protection scheme using OnLine protectors with ONEAC power conditioners report an over 50% reduction in total trouble calls; 83% fewer service calls due to hardware problems; 70% fewer system resets; and 43% fewer calls in which no trouble was found.

Flexible terminations

Available for 1 pair, 2 pair, 3 pair, or 4 pair applications, these protectors permit connections to either a screw terminal type connector or a 110 type connector. Hardwired protectors are ideal for locations without modular terminations.



- **Robust/solid state overvoltage protection:** last longer in the field
- **Patented SwitchedFilter™ technology:** allows exceptionally low let-through performance for optimum protection of electronic systems
- **Self-resetting sneak current protection:** eliminates overcurrent problems without creating unnecessary fuse replacements
- **100 A surge impulse design:** provides longer lasting protection
- **5-year warranty:** the longest in the industry
- **Simple installation:** convenient ground connection and wall mounting make installation a snap
- **Models available for analog, digital or ISDN service**
- **Safety Approvals:** UL listed primary (497), UL listed Secondary (497A), and cUL

OnLine J Series Communication Line Protector: Specifications

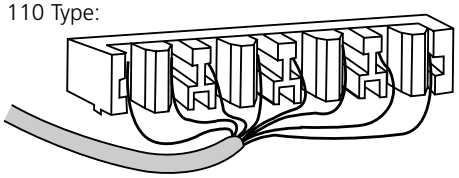
For analog, digital or ISDN service

Installed between the demarcation point and point of use, J Series communication line protectors eliminate the possibility for noise generated on outside telephone lines to enter systems through CSU/DSU connections, modems or faxes.

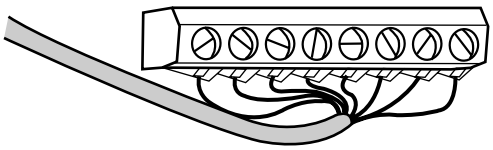
Application	Model No.	Pairs Protected
Analog: Standard Service — Trunk Lines, Analog OPX Stations with Ring Signal		
8 position, 8 wire, 4 Pair	110-AP, ST-AP	(1,2; 3,4; 5,6; 7,8)
Digital: ISDN, Digital OPX Stations without Ring Signal		
8 position, 8 wire, 4 Pair	110-AP, ST-DP	(1,2; 3,4; 5,6; 7,8)

Terminals

110 Type:



Screw Terminal (ST) Type:



ONEAC Breaks the "Ring Voltage Barrier"

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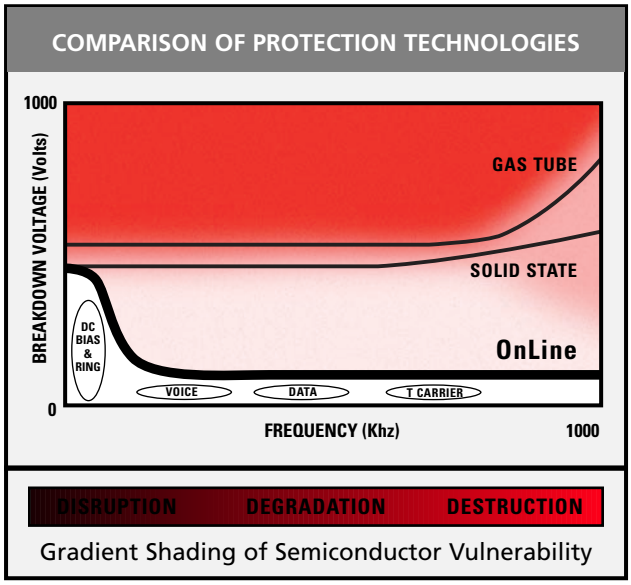

Series	110/ST-AP (analog)	110/ST-DP (digital)
Color	Gray	Gray
Impulse Voltage Performance with 10/1000µS, 1500 V, 100 A	370 V max.	95 V max.
DC Breakdown Voltage @ 100 V/sec (line to line) (line to ground)	540-740 V range 270-370 V	120-190 V range 60-95 V
Impulse (line to line)	250 V max.	105 V max.
Response Time	<1ns	<1ns
DC Holdover @ 25°C, 20 ms max	≥ 150 mA	≥ 150 mA
On State Voltage with 1 Amp RMS	<5 V	<5 V
Capacitance @ 50 VAC, 1 VAC, 10K Hz - 1 MHz	<200 pf	<200 pf
Insulation Resistance	>100 MΩ	>100 MΩ
Fused (Fails Open)	Yes	Yes
Service Life with 10/1000 µS @ +/- 10 Amps @ +/- 100 Amps @ +/- 300 Amps	 Unlimited Unlimited Fail-Safe	 Unlimited Unlimited Fail-Safe
Resettable Overcurrent Protection (Sneak Current) @ 25°C	300 mA (resettable)	300 mA (resettable)
Regulatory - Primary and Secondary UL, cUL	497, 497A	497, 497A
Storage Temperature	-40°C to 85°C	-40°C to 85°C
Operating Temperature	-40°C to 65°C	-40°C to 65°C

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