

ONEAC OnLine® 5S-Series Communication Line Protectors: Some face persistent system problems, despite their use of conventional communication line protectors. Others face performance expectations that allow zero tolerance for downtime. 5S-Series communication line protectors are specifically engineered to satisfy these demanding applications, whether analog or digital.

Ultimate assurance of system reliability

Leading telecommunications companies employ ONEAC OnLine communication line protectors in their installations for good reason. 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 other desired 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.

Balanced fail-safe protection

AC power crossings and induction problems can create an unsafe condition in either line of a twisted pair — tip or ring. Conventional line protectors address only one or the other. ONEAC's 5S-Series provides a complete, balanced fail-safe solution. Their unique design ensures that in the event either side fails, both tip and ring are simultaneously grounded. It's a critical extra margin of safety and protection for your system and your personnel.

Last longer on the job

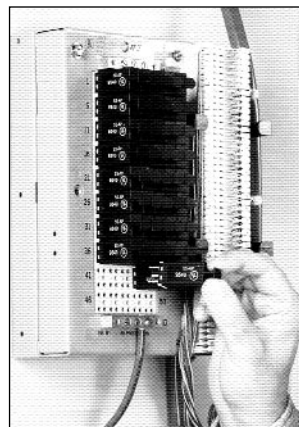
ONEAC communication line protectors feature more robust design than others so they're better able to withstand current and voltage surges. They also include self-resetting sneak current protection — that eliminates the cost and downtime of replacement due to nuisance failures.

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.



- **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
- **Balanced fail-safe protection:** provides extra margin of safety
- **Convenient test points:** for faster, easier line testing
- **100 A surge impulse design:** provides longer lasting protection
- **Models available for analog and digital lines**
- **Safety approvals:** UL, cUL Listed Primary (497)
- **5-year warranty:** your best assurance of product performance and reliability in the industry.



Easily mountable on standard 5-pin bases, the OnLine 5S-Series provides more complete and long-lasting protection than conventional communication line protectors.

OnLine 5S-Series Communication Line Protectors: Specifications

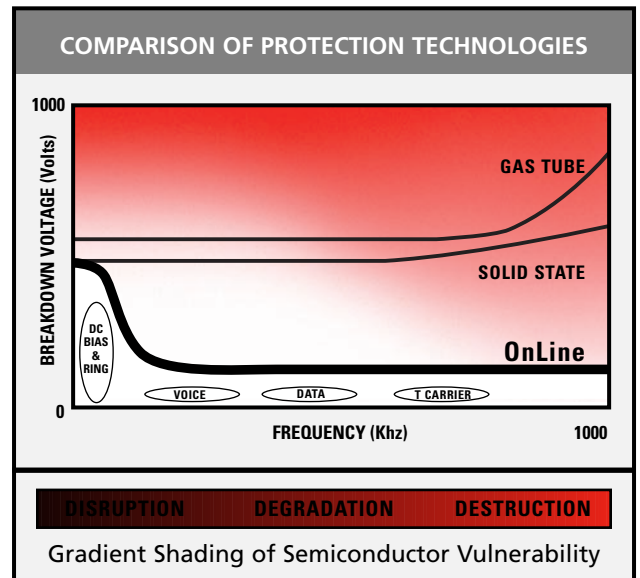
ONEAC breaks the "Ring Voltage Barrier"

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.

For analog, digital or ISDN service

For use with 5-pin bases, 5S-Series communication line protectors eliminate the possibility for noise generated on outside telephone lines to enter internal communication circuits.

Application	Part No.	Color
Analog: Standard Service — Trunk Lines, Analog OPX Stations with Ring Signal	5S-AP	Black
Digital: ISDN	5S-DP	Yellow
Digital: T1	5S-DCCP	Blue



Part Number	5S-AP	5S-DCCP	5S-DP
Impulse Voltage Performance 10/1000µS, 1500V, 100A Impulses:			
Let-through voltage - line to line (typical/max.)	150 V/250 V	150 V/195 V	70 V/105 V
Let-through voltage - line to earth (typical/max.)	320 V/370 V	320 V/370 V	78 V/95 V
DC Breakdown Voltage (0-1 kV @ 100 V/s):			
Line to line (typical/range)	640 V/540-740 V	320 V/270-370 V	155 V/120-190 V
Line to earth (typical/range)	320 V/270-370 V	320 V/270-370 V	78 V/60-95 V
Rated Impulse Discharge with 10/1000 µS	100 A	100 A	100 A
Response Time	<1 ns	<1 ns	<1 ns
DC Holdover @ 25° C, 20 ms max	>150 mA	>150 mA	>150 mA
On State Voltage with 1 Amp RMS	<5 V	<5 V	<5 V
Capacitance @ 50VDC, 1 VAC, 10 kHz - 10 MHz	<200 pf	<200 pf	<200 pf
Insulation Resistance	>100 MΩ	>100 MΩ	>100 MΩ
Service Life with 10/1000 µS			
@ +/- 10 Amps	Unlimited	Unlimited	Unlimited
@ +/- 100 Amps	Unlimited	Unlimited	Unlimited
@ +/- 300 Amps	Fail-safe	Fail-safe	Fail-safe
Overcurrent Protection (Sneak Current) @ 25° C (ceramic PTC technology)	300 mA (resettable)	300 mA (resettable)	300 mA (resettable)
UL, cUL Listings	497 Primary Protector	497 Primary Protector	497 Primary Protector
Storage Temperature	-40° C to 85° C	-40° C to 85° C	-40° C to 85° C
Operating Temperature	-40° C to 65° C	-40° C to 65° C	-40° C to 65° C
Safety Performance	Balanced Fail-Safe, by means of "TIP" or "RING" in reference to Ground (Simultaneously reduces to zero any potential from either "TIP" or "RING" to Ground.)		

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



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