

**Sentinel™ 6-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. 6-Series communication line protectors are specifically engineered to satisfy these demanding applications, whether for analog, digital, or high-speed data lines.

#### Ultimate assurance of system reliability

Leading telecommunications companies employ ONEAC Sentinel communication line protectors in their installations for good reason: because Sentinel 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 result from high frequency interference.

Sentinel protectors with ONEAC's patented Frequency Selective Transient Voltage™ (FSTV) technology have the unique ability to discriminate between harmful and desired signals. This allows Sentinel protectors to prevent fast-edged transients from entering your system, yet allow lower frequency ring voltages and lower voltage voice and data signals to pass through unobstructed.

#### Last longer on the job

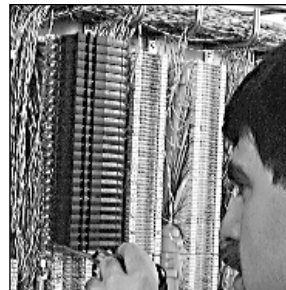
ONEAC communication line protectors feature a more robust design than others so they're better able to withstand current and voltage surges. Which eliminates the cost and downtime of replacement due to nuisance failures.

#### 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 Sentinel 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 FSTV filter technology:** allows exceptionally low let-through performance for optimum protection of electronic systems
- **Convenient test points:** for faster, easier line testing
- **100 A surge impulse design:** provides longer lasting protection
- **Models available for analog, digital, and high-speed data lines**
- **Safety approvals:** UL Listed Primary (497), UL Listed Secondary (497A), cUL
- **5-year warranty:** the best assurance of product quality and performance in the industry
- **Manufactured under ISO 9001:** assures consistent quality and performance.
- **Free 24-hour technical support**



*Easily mountable on standard 66 blocks, Sentinel Series protectors provide more complete and longer lasting protection than conventional communication line protectors.*

# Sentinel 6-Series Communication Line Protector: Specifications

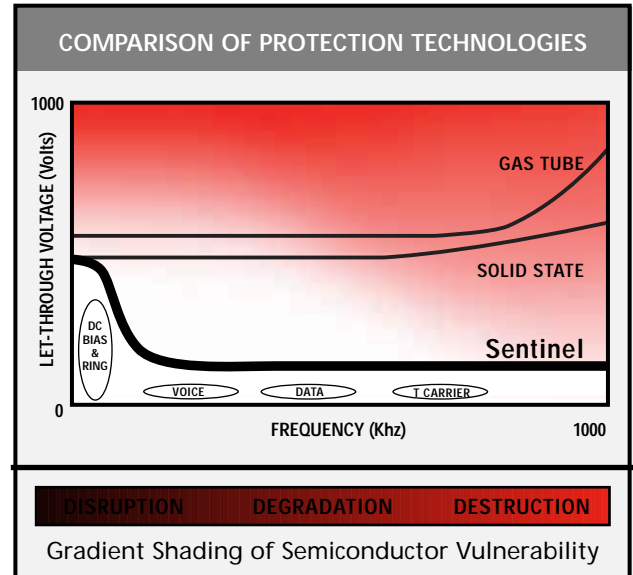
## A variety of applications

For use with type 66 block M1-50, Sentinel 6-Series communication line protectors eliminate the possibility for noise generated on outside telephone lines to enter internal communication circuits.

Application	Part No.
<b>ADSL:</b> Services with local analog	6-AD
<b>Analog:</b> Standard Service — Trunk Lines, Analog OPX stations with ring signal	6-AP
<b>Digital:</b> ISDN	6-DP
<b>T1:</b> Standard analog lines and T1 lines	6-DC
<b>Ground Bar:</b> required for each 66 block (supports up to 25 protectors)	350-032

## 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 Sentinel's ability to differentiate signals based on frequency permits the desired signals to pass while preventing transients from damaging semiconductor-based electronics.



Part Number	6-AD	6-AP	6-DP	6-DC
<b>Impulse (Limiting Voltage) Performance: Impulse input @ 10/1000 uS, 1.5 kV, 100 A</b>				
Let-through voltage - line to earth (typical/max.)	60 V/100 V	60 V/100 V	78 V/95 V	60 V/100 V
Let-through voltage - line to line (typical/max.)	60 V/100 V	60 V/100 V	50 V/75 V	60 V/100 V
<b>DC Breakdown (Limiting) Voltage Range: 0-1 kV @ 100 V/S</b>				
Line to earth (typical/range)	310 V/270-350 V	310 V/270-350 V	78 V/60-95 V	310 V/270-350 V
Line to line (typical/range)	310 V/270-350 V	310 V/270-350 V	155 V/60-95 V	310 V/270-350 V
Module Loop Resistance @ 25°C (each leg) in ohms max	0.3 Ω min, 0.5 Ω max	0.3 Ω min, 0.5 Ω max	3 Ω min, 6 Ω max	0.3 Ω min, 0.5 Ω
Holding Current	≥260 mA	≥260 mA	≥150 mA	≥260 mA
Response Time	<1ns	<1ns	<1ns	<1ns
Insulation Resistance @ 50 VDC	>100 MΩ	>100 MΩ	>7.5 MΩ	>100 MΩ
Capacitance Line to Earth @ 50 VDC, 1 VAC, 10 kHz – 1 MHz				
A or B in reference to earth:	<40pf	<40pf	<75pf	<40pf
A to B:	<40pf	<40pf	<150pf	<40pf
On-State Voltage @ 1 A:	<5 V	<5 V	<5 V	<5 V
Overcurrent Protection (Sneak Current) @ 25°C				
Self resetting (ceramic PTC technology)	—	—	300 mA	—
Non-resetting (time delay fuse)	750 mA	750 mA	1.1 A	750 mA
Color Code	Yellow	Black	Yellow	Blue
Test Points	Yes	Yes	Yes	Yes

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



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