

## AD-03W-FS

### High Voltage "Line To Line" VDSL2-Compliant Sealed Station Protector

DSL-Compliant For Elevated  
DC Biasing Up To 150 Volts

Three-Electrode Heavy Duty  
Gas Discharge Tube Protection

High "Line to Line"  
Breakdown

Gel-Sealed  
IDC Terminations

Highly Visible  
Wire Terminations

Fully Encapsulated  
Assembly

Listed to UL 497



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Tii's Angle Driver® AD-03W-FS is specifically designed to protect tomorrow's high-speed digital networks, such as Voice Over Digital Subscriber Line (VoDSL) technology, against damage caused by electrical surges.

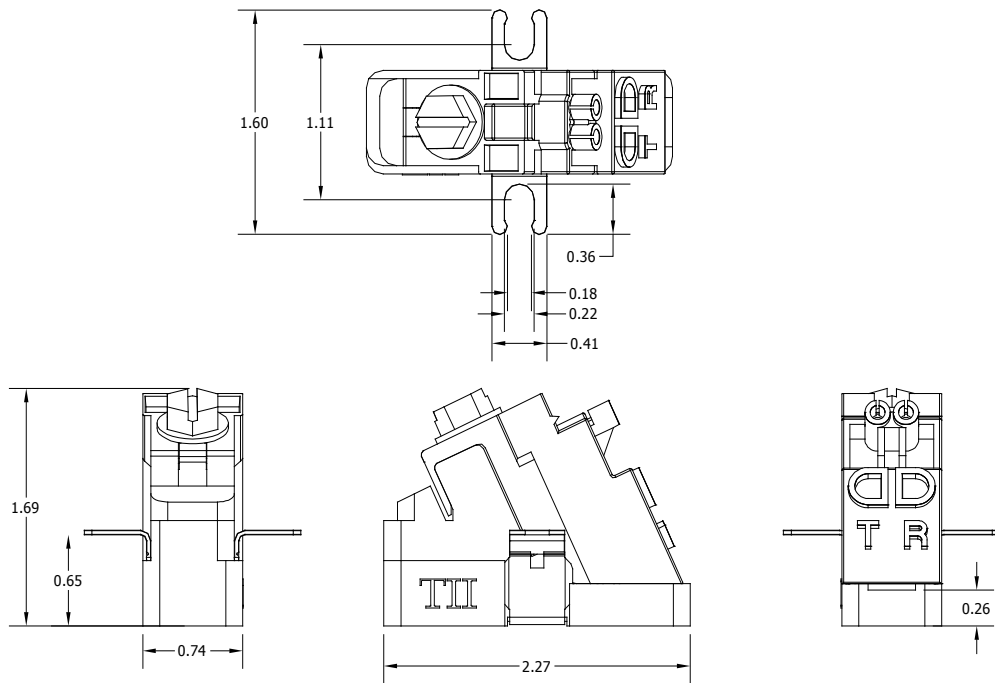
#### KEY PRODUCT BENEFITS

- ▶ Optimal performance for IPTV video over DSL due to low line to ground capacitance, providing significantly better DSL Insertion Loss than most competitive products.
- ▶ Designed for networks with elevated line to line voltage
- ▶ The AD-03W-FS consists of a heavy duty three-electrode, high line-to-line breakdown gas tube surge arrester, failshort device and gel-sealed IDC (Insulation Displacement Connection) type connectors for terminating all wires in one completely self-contained unit
- ▶ IDC connections require no stripping of the wire insulation for terminating
- ▶ Module has two ports for small-gauge (22 – 26 AWG) wire terminations and two ports designed for either 18.5 AWG "F drop" or 19 – 24 AWG copper wire for tip/ring connections, all of which are environmentally sealed
- ▶ May be employed in a variety of single and multiple pair assemblies, NID and station protector housings
- ▶ Can be used to retrofit/service upgrades of assemblies already installed in the field
- ▶ Unique, universal ground tab can be snapped off to allow for multiple mounting arrangements

#### INDUSTRY STANDARDS

- ▶ Fully compatible and exceeds the transmission requirements of Telcordia specification GR-974-CORE for high-speed digital networks
- ▶ tii Angle Driver® AD-03W-FS complies with the "no back-up device" section of Telcordia GR-1361-CORE and has been fully tested by Telcordia and exceeds the temperature aging and cycling performed at a modified (increased severity) 150Vdc bias for protectors deployed in DSL applications. The resulting lower capacitance and increased reliability make the protector an excellent choice for Digital Subscriber Line (DSL) applications. It exceeds the transmission requirements for high-speed digital networks
- ▶ Surge handling and life capabilities of the Angle Driver® AD-03W-FS exceeds the objectives of Telcordia GR-1361-CORE
- ▶ Angle Driver® AD-03W-FS exceeds the requirements of Section 5, "Environmental Requirements, Severe Climatic Conditions" and Section 6.2 "Environmental, Severe Climatic and Flooded Conditions" of Telcordia GR-49-CORE Issue 2, "Generic Requirements for Outdoor Telephone NIDs"
- ▶ Meets Generic Requirements For IDC Cross-Connect & Terminal Blocks of Telcordia TR-NWT-0011195
- ▶ Meets Environmental Sealing Requirements of Telcordia TR-NWT-000975.
- ▶ Listed to UL 497

# AD-03W-FS



Dimensions are in Inches

## SPECIFICATIONS

DC Breakdown Voltage @ 2000 V/sec (See Note 1)	Line to Ground = 280 – 420Vdc Line to Line = 425 – 625Vdc
*Impulse Breakdown voltage @ 100V/μsec	550V Maximum, 450V Typical
Insulation Resistance @100Vdc	100 Megohms Minimum
DC Holdover: 52Vdc @260mA	<150 mS
Maximum Single Impulse Discharge Current 8/20 waveform	20kA 10kA/Side Simultaneously
Capacitance	10 pF Typical
Aging, Temperature/Humidity Cycling with Surge	150 V DC Bias
Insertion Loss 0.2 – 30MHz	<0.1dB
Return Loss @ 30MHz	>15dB
Impulse Life (See Note 2)	
10Amp,10/1000μsec waveform	1500 Surges Minimum
100Amp,10/1000μsec waveform	100 Surges Minimum
300Amp,10/1000μsec waveform	50 Surges Minimum
AC Discharge Current (See Note 2)	
10Amp, 1 Second	20 Operations Minimum
1Amp, 1 Second	60 Operations Minimum
*Test Method: IEEE 465.1	
Notes:	
1. For 99% of distribution	
2. End of life DC breakdown (lower limit) = 250 V	

## ORDERING INFORMATION

Model No.	Description
AD-03W-FS	Heavy Duty Total Failsafe® TFS® Gel-Sealed Station Protector With Snap-Off Ground Tab