

## AD-M2-W-FS

### VDSL2 Compliant Sealed Station Protector

DSL-Compliant For Elevated  
DC Biasing Up To 150 Volts

Three-Electrode Heavy  
Duty Balanced Gas Tube  
Protection with Narrow  
Breakdown Range

Gel-Sealed IDC  
Terminations

Highly Visible  
Wire Terminations

Fully Encapsulated  
Assembly

Listed to UL 497



Tii's Angle Driver® AD-M2-W-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
- ▶ The AD-M2-W-FS consists of a tii Heavy Duty three-electrode gas tube surge arrester with narrow breakdown range, 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 to accept large-gauge (18-19 AWG) or small-gauge (22-24 AWG) wire for tip/ring connections, all of which are environmentally sealed
- ▶ May be employed in a variety of single and multiple pair Network Interface and station protector housings
- ▶ Can be used to retrofit/service upgrades of existing assemblies already installed in the field
- ▶ Unit is supplied with a unique, universal ground tab which may 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
- ▶ The AD-M2-W-FS complies with the "no back-up device" section of Telcordia GR-1361-CORE and has been fully tested by Telcordia and meets 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-M2-W-FS meet the objectives of Telcordia GR-1361-CORE
- ▶ Angle Driver® AD-M2-W-FS meets 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 Sealing Requirements of Telcordia TR-NWT-000975
- ▶ Telcordia TR-NWT-001195 Meets generic Requirements for IDC Cross-Connect & Terminal Blocks
- ▶ Listed to UL 497



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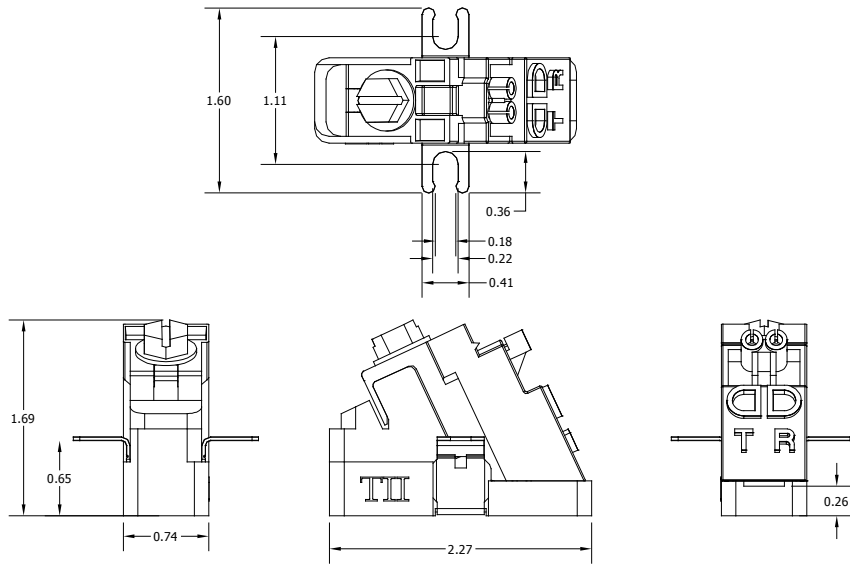
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# AD-M2-W-FS



Dimensions are in Inches

## SPECIFICATIONS

DC Breakdown Voltage (L-G) @ 2000 V/sec	270 - 420Vdc
**Impulse Breakdown Voltage @100 V/μsec. (see note 1)	550V Maximum, 450V Typical
Insulation Resistance @ 100V DC	100 Megohms Minimum
DC Holdover: 52 V DC @260 mA	< 150 mS
Maximum Single Impulse Discharge Current, 8/20 waveform:	20kA 10kA/Side Simultaneously
*Capacitance (L-G)	10 pF Typical
Aging, Temperature/Humidity Cycling with Surge	150 Volts 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
* Line to Ground	** Test Method IEEE 465.1, RUS PE-80
Notes:	
1. For 99% of distribution	
2. End of life DC breakdown (lower limit) = 250 volts	
Insulation Resistance @50Vdc, 10MA:	100 Megohms Minimum

## ORDERING INFORMATION

Model No.	Description
AD-M2-W-FS	Heavy Duty Total Failsafe® TFS® Gel-Sealed Station Protector With Snap-Off Ground Tab