

## LP-18-400-N Connector Protector

- Eliminates the Need for Separate Cable Connector
- Attaches Directly to LMR<sup>®</sup>-400 Cable
- Uses EZ-400-X (No Braid Trim) Connector Interface
- DC Pass Multi-Strike Broadband Bidirectional Design
- Fully Weatherized Housing
- Solid Brass Construction
- White Bronze Plated for Durability and Long Life



## Cable Connector and Lightning Protector in One!

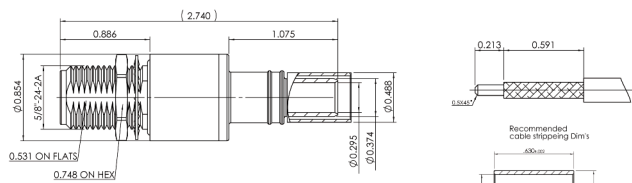
The Times Protect<sup>®</sup> LP-18-400-N series is an exceptional in-line broadband DC pass surge protection design incorporating lightning protection circuitry and the EZ-400-X series crimp style connector interface unit. This combination allowing the in-line surge protector to be attached directly to the LMR<sup>®</sup>-400 cable eliminates the cable connector needed when using conventional lightning protectors. The LP-18-400-N series protectors exhibit outstanding RF performance over the entire frequency spectrum from DC through 6000MHz and the elimination of the extra connector further reduces return loss, insertion loss and lowers cost. In addition, its fully weatherized housing meets the IP-67 standard for outdoor as well as indoor installation.

### LP-18-400-N Series:

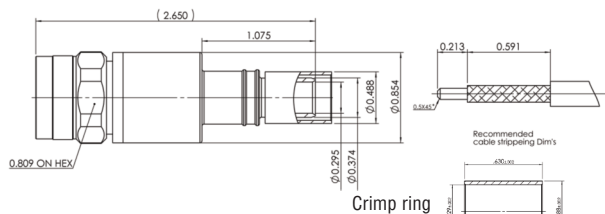
- LP-18-400-NF-X (150W)  
N Female connector on one side and EZ-400-X crimp style interface on the other side - bidirectional
- LP-18-400-NMH-X (150W)  
N Male connector on one side and EZ-400-X crimp style interface on the other side - bidirectional

The LP-18-400-N series protectors install easily onto LMR<sup>®</sup>-400 cable using the standard CST-400 prep tool and either the CT-400/300 crimp tool or the HX-4 crimp handle with the Y1719 (0.429") hex dies.





- LP-18-400-NF-X  
DC Pass N Type Female



- LP-18-400-NMH-X  
DC Pass N Type Male

\*All Dimensions shown in inches

## Installation Tools:

CST-400 Prep Tool

CT-400/300 Crimp Tool or HX-4 Crimp Tool  
with Y1719 (0.429") hex dies



CST-400



CT-400/300



HX-4 and Y1719



## Electrical Specifications

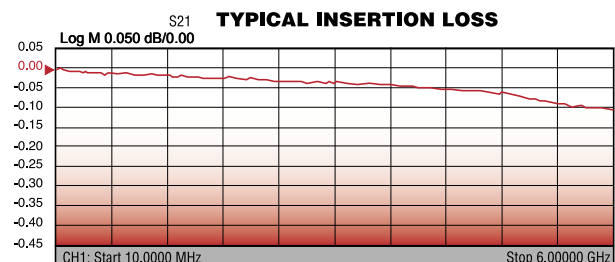
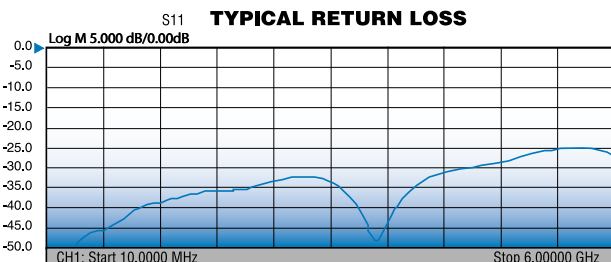
Impedance	50 $\Omega$
Frequency Range	DC-6000 MHz
VSWR/Return Loss	< 1.15:1 / <23dB (DC-6000MHz)
Insertion Loss	<0.15dB (DC-6000MHz)
Maximum Surge Current	10kA multiple (8x20 $\mu$ s wave-form)
Impulse Sparkover	700V (1kV/ $\mu$ s)
Turn on	180Vdc
Average Power	150 Watts
Protection Circuit	DC Pass

## Mechanical / Environmental Specifications

Temp Range Storage/Operating	-40°C - +85°C
Weatherization	IEC 60068 40/085/21 & IP67
Thermal Shock	US MIL-STD 202, Meth.107,Cond.B
Vibration	US MIL-STD 202, Meth.204,Cond.B
Shock	US MIL-STD 202, Meth.213,Cond.I
RoHS Compliant	Yes
Wear/Mating Cycles	500 minimum
Recommended Coupling Nut Torque	7 to 10 lb-in
Unit Weight	3.4 oz / 95 grams

## Material Specifications

Component	Material	Plating
Body	Brass	White Bronze
Inner Conductor Male	Brass	Silver
Inner Conductor Female	Phosphor Bronze	Silver
Washer	Brass	White Bronze
Coupling Nut	Brass	White Bronze
Insulator	PTFE	--
O-Ring	Silicone Rubber	--



Note: IL and RL data without LMR®-400 cable



World Headquarters: 358 Hall Avenue, Wallingford, CT 06492 • Tel: 203-949-8400, 1-800-867-2629 • Fax: 203-949-8423

International Sales: 4 School Brae, Dysart, Kirkcaldy, Fife, Scotland KY1 2XB UK • Tel: +44(0)1592655428

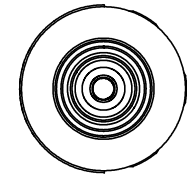
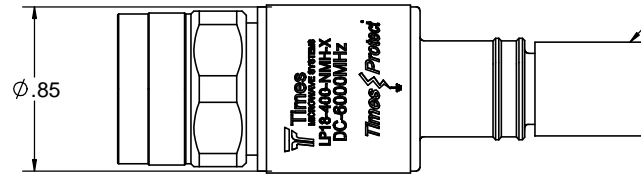
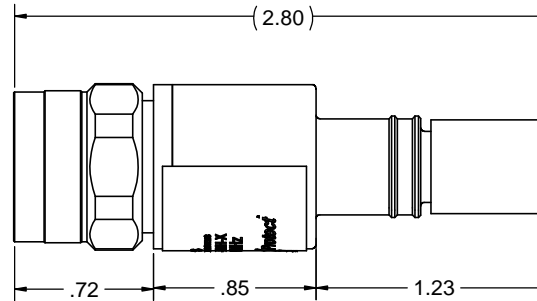
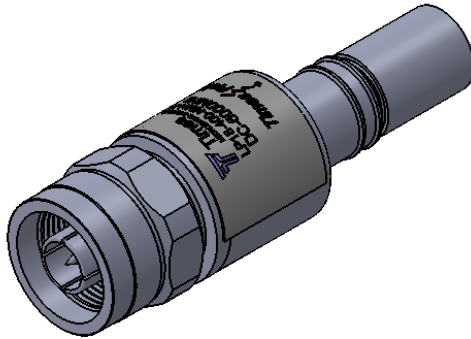
China Sales: No. 318 Yuan Shan Road, Shanghai 201108 China • Tel: 86-21-51761234 • Fax: 86-21-64424098

www.timesmicrowave.com

# NOTICE OF PROPRIETARY RIGHTS

THIS DOCUMENT CONTAINS CONFIDENTIAL TECHNICAL DATA, INCLUDING TRADE SECRETS, PROPRIETARY TO TIMES MICROWAVE SYSTEMS. DISCLOSURE OF THIS DATA IS EXPRESSLY CONDITIONED UPON YOUR ASSENT THAT ITS USE IS LIMITED TO USE WITHIN YOUR COMPANY ONLY. ANY OTHER USE IS STRICTLY PROHIBITED WITHOUT THE PRIOR WRITTEN CONSENT OF TIMES MICROWAVE SYSTEMS.

REV.	REVISION DESCRIPTION	DFTM	DATE	APPD	DATE
A	RELEASED FOR PRODUCTION	M.E.	03/21/14	M.E.	03/21/14



## NOTES:

### 1. ELECTRICAL PERFORMANCE

IMPEDANCE: 50 OHMS  
 OPERATING FREQUENCY: DC-6000 MHz  
 VSWR/RETURN LOSS: < 1.15:1 / < -23 dB  
 INSERTION LOSS: < 0.15 dB  
 AVERAGE POWER: 150 W  
 MAX SURGE CURRENT: 10 kA MULTIPLE (8/20 us WAVE-FORM)  
 IMPULSE SPARKOVER: 700 V (1 kV/us)  
 TURN ON: 180 Vdc  
 PROTECTION CIRCUIT: DC PASS, BIDIRECTIONAL

### 2. ENVIRONMENTAL CHARACTERISTICS

STORAGE/OPERATING TEMPERATURE: -40C TO +85C  
 WEATHERIZATION: IP67  
 VIBRATION: MIL-STD 202, METHOD 204, CONDITION B  
 WEIGHT: 3.4 oz / 95 grams  
 RoHS COMPLIANT

### 3. MATERIAL AND FINISH

INNER CONNECTOR MALE: BRASS, SILVER PLATE  
 BODY: BRASS, WHITE BRONZE PLATE  
 COUPLING NUT: BRASS, WHITE BRONZE PLATE  
 INSULATOR: PTFE  
 O-RING: SILICONE RUBBER

## INSTALLATION TOOLS:

CST-400 PREP TOOL  
 CT-400/300 CRIMP TOOL OR  
 HX-4 CRIMP TOOL WITH Y1719 (0.429") HEX DIES

MATERIAL:



USED ON ASSY.

DRAFTSMAN	M. ELLIS	03/14/21	TIMES MICROWAVE SYSTEMS		
CHECKER	M. ELLIS	03/14/21			
APPROVED	M. ELLIS	03/14/21			
UNLESS OTHERWISE SPECIFIED			TITLE: SURGE PROTECTOR N MALE TO EZ-400-X DC-6000 MHz		
ALL DIMENSIONS ARE IN INCHES MACHINED SURFACES FINISH 32 RMS MAX. REMOVE ALL BURRS .005 MAX. BREAK MACHINE CORNERS .005 MAX. FILLET R. TOLERANCES ON DECIMALS			DWG. NO. LP-18-400-NMH-X		
.XX ± .01 ANGLES ± 1°			CODE IDENT. 68999		
.XXX ± .005 FRACTIONS ± 1/32			SCALE: 2:1		
DO NOT SCALE DRAWING			SHEET 1 OF 1		