



ISO 9001 Certified

### *LP-18-195-N Connector Protector*

- *Eliminates the Need for Separate Cable Connector*
- *Attaches Directly to LMR<sup>®</sup>-195 Cable*
- *Uses EZ-195-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*



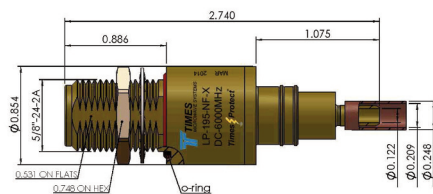
### *Cable Connector and Lightning Protector in One!*

The Times Protect<sup>®</sup> LP-18-195-N series is an exceptional in-line broadband DC pass surge protection design incorporating lightning protection circuitry and the EZ-195-X series crimp style connector interface unit. This combination allowing the in-line surge protector to be attached directly to the LMR<sup>®</sup>-195 cable eliminates the cable connector needed when using conventional lightning protectors. The LP-18-195-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.

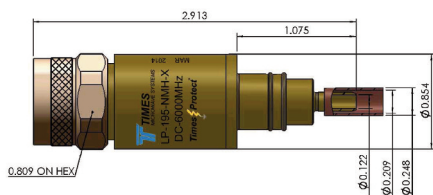
#### LP-18-195-N Series:

- LP-18-195-NF-X (150W)  
N Female connector on one side and EZ-195-X crimp style interface on the other side - bidirectional
- LP-18-195-NMH-X (150W)  
N Male connector on one side and EZ-195-X crimp style interface on the other side - bidirectional

The LP-18-195-N series protectors install easily onto LMR<sup>®</sup>-195 cable using the standard CST-195/200 (3192-102) prep tool and either the CT-240/200/195/100 (3190-667) crimp tool or the CT-U Tool (3192-181) with the Y197 (0.213") hex dies (3190-610).



- LP-18-195-NF-X  
DC Pass N Type Female



- LP-18-195-NMH-X  
DC Pass N Type Male

\*All Dimensions shown in inches

## Installation Tools:

CST-195/200 (3192-102) Prep Tool  
CT-240/200/195/100 (3190-667) Crimp Tool or  
CT-U Tool with Y197 (0.213") hex dies



CST-195/200



CT-240/200/195/100



CT-U and Y197

## Electrical Specifications

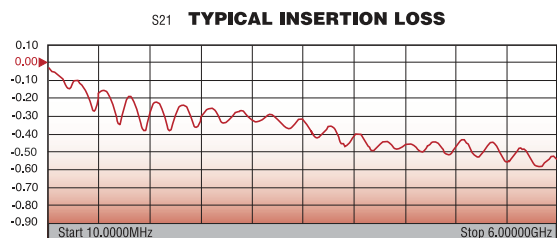
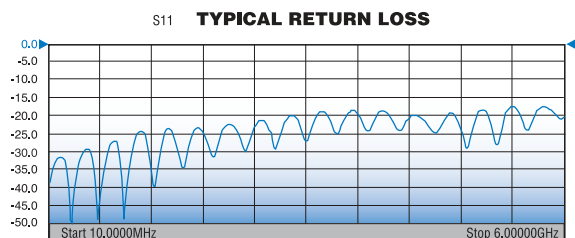
Impedance	50 $\Omega$
Frequency Range	DC-6000 MHz
VSWR/Return Loss	< 1.3:1 / <18dB (DC-6000MHz)
Insertion Loss	<0.6dB (DC-6000MHz)
Maximum Surge Current	10kA multiple (8x20 $\mu$ s wave-form)
Impulse Sparkover	700V (1kV/ $\mu$ s)
Turn on	180Vdc
Average Power	150 Watts
Protection Circuit	DC Pass

## 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 in-lb.
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® cable



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### *LP-18-240-N Connector Protector*

- *Eliminates the Need for Separate Cable Connector*
- *Attaches Directly to LMR<sup>®</sup>-240 Cable*
- *Uses EZ-240-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*



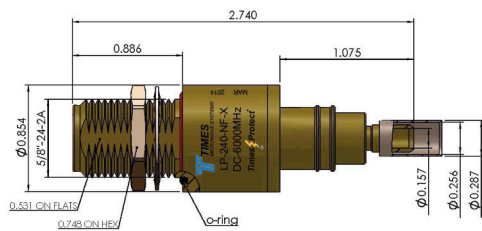
### *Cable Connector and Lightning Protector in One!*

The Times Protect<sup>®</sup> LP-18-240-N series is an exceptional in-line broadband DC pass surge protection design incorporating lightning protection circuitry and the EZ-240-X series crimp style connector interface unit. This combination allowing the in-line surge protector to be attached directly to the LMR<sup>®</sup>-240 cable eliminates the cable connector needed when using conventional lightning protectors. The LP-18-240-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.

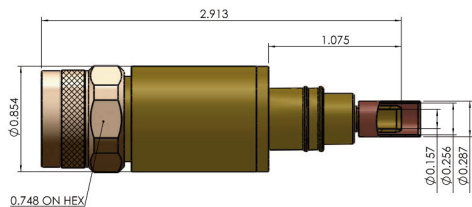
#### LP-18-240-N Series:

- LP-18-240-NF-X (150W)  
N Female connector on one side and EZ-240-X crimp style interface on the other side - bidirectional
- LP-18-240-NMH-X (150W)  
N Male connector on one side and EZ-240-X crimp style interface on the other side - bidirectional

The LP-18-240-N series protectors install easily onto LMR-240<sup>®</sup> cable using the standard CST-240A (3192-152) prep tool and either the CT-240/200/195/100 (3190-667) crimp tool or the HX-4 crimp handle (3190-200) with the Y375 (0.255") hex dies (3190-608).



- LP-18-240-NF-X  
DC Pass N Type Female



- LP-18-240-NMH-X  
DC Pass N Type Male

\*All Dimensions shown in inches

## Installation Tools:

CST-240A (3192-152) Prep Tool  
CT-240/200/195/100 (3190-667) Crimp Tool or  
HX-4 Crimp Tool with Y375 (0.255") hex dies



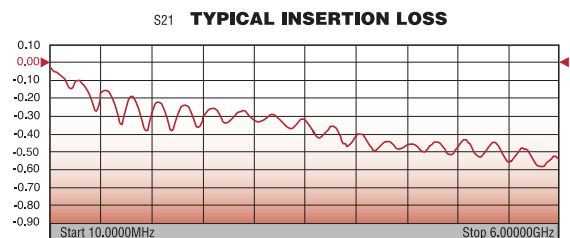
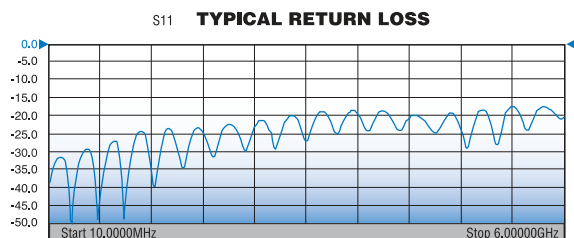
CST-240A



CT-240/200/195/100



HX-4 and Y375



Note: IL and RL data without LMR® cable

Electrical Specifications	
Impedance	50 Ω
Frequency Range	DC-6000 MHz
VSWR/Return Loss	< 1.3:1 / <18dB (DC-6000MHz)
Insertion Loss	<0.6dB (DC-6000MHz)
Maximum Surge Current	10kA multiple (8x20μs wave-form)
Impulse Sparkover	700V (1kV/μs)
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 in-lb
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	--



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### *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*



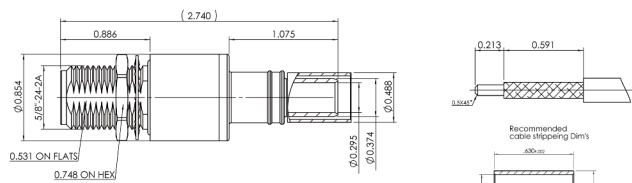
### *Cable Connector and Lightning Protector in One!*

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.

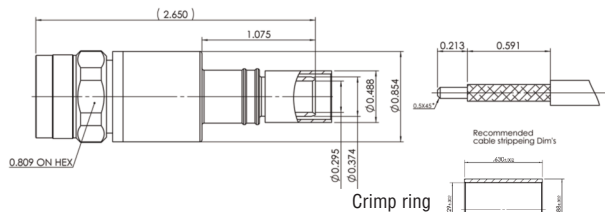
#### LP-18-400-N Series:

- 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



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