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# CN-LAMBDA/4-2.2...

## COAXTRAB Surge Voltage Protection for Mobile Phone and Broadband Communication Systems

TRABTECH

Data Sheet  
2431\_en\_A



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### Description

The CN-LAMBDA/4-2.2... with N-type connector protects radio devices against surge voltage. Placed on both sides of the device being protected, transient voltages are prevented from damaging equipment. With its high energy-absorbing capacity, the CN-LAMBDA/4-2.2... greatly reduces system failure when using exposed antenna systems.

The Lambda/4 technology provides excellent protection with limited signal degradation. Compatible with 0.82 to 2.2 GHz signals, the adapter is ideal for protecting mobile phones and satellite location systems.

For maximum protection, install a CN-LAMBDA/4-2.2... at each coaxial input and output connector to protect a device against both lightning strikes and transient voltage picked up by the cable. The adapter includes a seal for mounting through a 16 mm diameter hole in a bulkhead. An optional mounting bracket allows mounting to a plate. Grounding is through the bulkhead, optional bracket or separate wire (up to 4 AWG/25 mm<sup>2</sup>) attached to the grounding lug (requires user-supplied M8 screw).

Phoenix Contact offers a full line of surge protection products. For additional information, visit our website at [www.phoenixcon.com/trabtech](http://www.phoenixcon.com/trabtech).

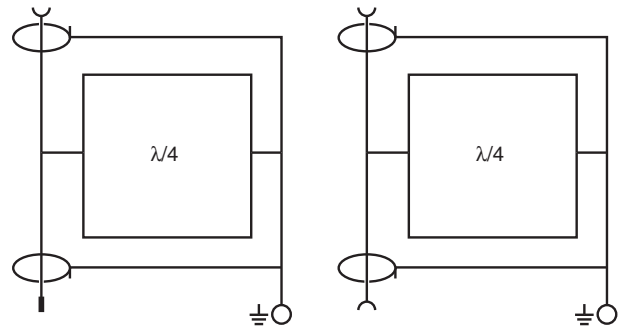


Figure 1 Function Diagrams

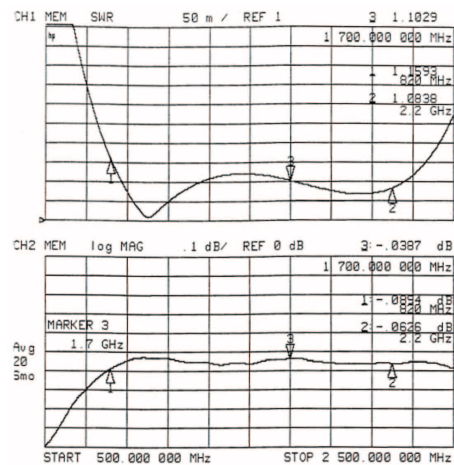


Figure 2 Typical VSWR and Insertion Loss



Make sure to always use the latest documentation.  
It can be downloaded at [www.download.phoenixcontact.com](http://www.download.phoenixcontact.com).

## Ordering Data

### Products

Description	Type	Order No.	Pcs./Pkt
COAXTRAB, Protective adapter for antenna connection, socket-socket connector	CN-LAMBDA/4-2.2-BB	2800024	1
COAXTRAB, Protective adapter for antenna connection, plug-socket connector	CN-LAMBDA/4-2.2-SB	2800025	1

### Accessories

Description	Type	Order No.	Pcs./Pkt
CN-UB Assembly Bracket, 90°, 50 mm	CN-UB/MP-90DEG-50	2803137	1

## Technical Data

### General Data

Weight	215 g (0.47 lb.)
Degree of protection	IP 68

### RF Specifications

Frequency	0.82-2.2 GHz
VSWR (typical/maximum)	1.1/1.2
Insertion Loss (typical/maximum)	0.05/0.15 dB
Return Loss (typical/maximum)	-26.4/-20.8 dB
RF Power	0.5 kW <sub>AVG</sub> /4 kW <sub>PK</sub>

### Surge Protection

Maximum discharge surge current $I_{max}$ (8/20 $\mu$ s waveform)	60 kA <sub>PK</sub>
Nominal discharge surge current $I_n$ (8/20 $\mu$ s waveform)	50 kA
Let-through $V_{PK}/\mu$ J (8/20 $\mu$ s waveform)	12 V/15 $\mu$ J @ 6 kV/3 kA
$I_{imp}$ (10/350 $\mu$ s waveform)	20 kA

### Approvals

CE	EN
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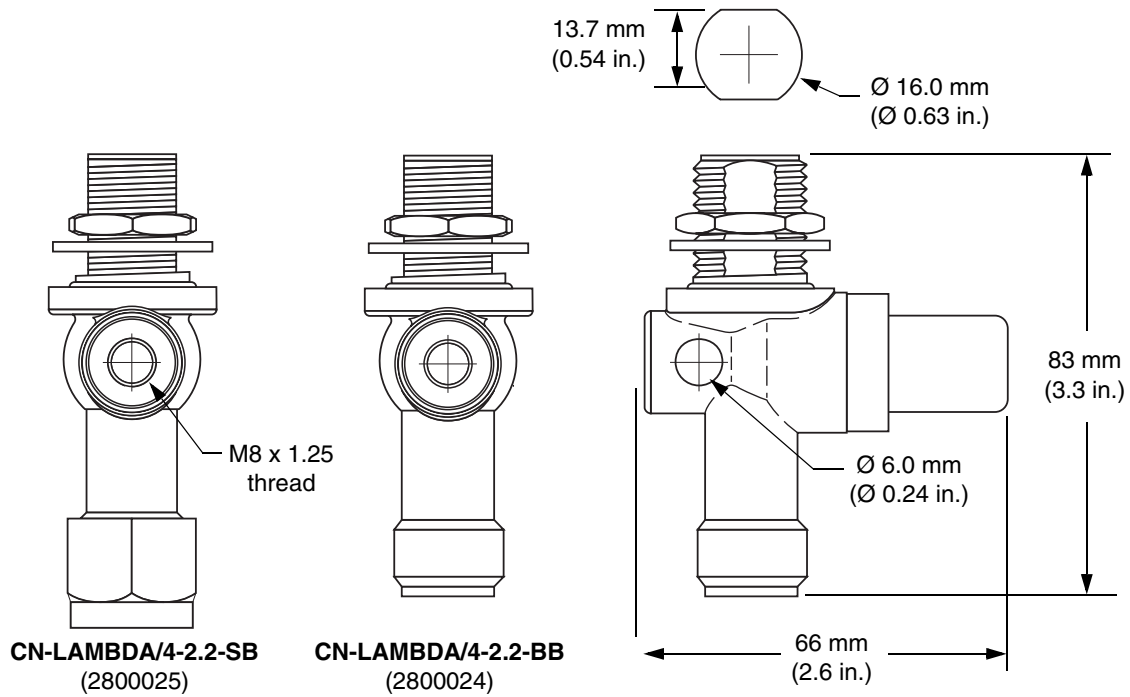


Figure 3 CN-LAMBDA/4-2.2... dimensions

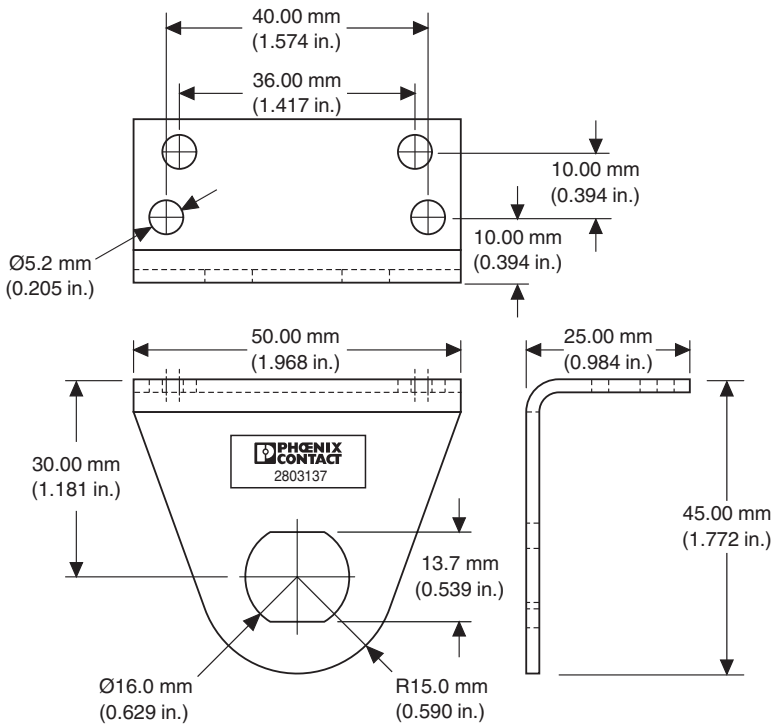


Figure 4 CN-UB/MP-90DEG-50 dimensions