



## LDSBus HVT - Junction Datasheet



### 1 Introduction

The LDSBus HVT-Junction connects LDSBus Devices (Sensors /Actuators) to the LDSBus. It serves as a data and power interface between the LDSBus host and the LDSBus devices. Each LDSBus HVT-Junction can connect up to four LDSBus Devices. Additional LDSBus HVT-Junctions may be daisy chained to add more LDSBus devices to the bus.

#### 1.1 Features

- Connects LDSBus devices to LDSBus Host and supports daisy chain connections through the RJ45 LDSBus ports
- Supports four LDSBus device connections through the RJ11/RJ12 LDSU ports
- Built-in DC-DC converter for stepping down the LDSBus +24VDC supply to +5VDC for LDSU ports
- Built-in Voltage protection for RJ45 ports
- Built-in Overcurrent protection
- Flush mount and DIN Rail mounting options
- Operating temperature range : 0°C to +70°C



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## 2 Part Numbers

Part#	Naming
LA010101A	LDSBus HVT-Junction
LA120101A	LDSBus DIN Rail Mount Set

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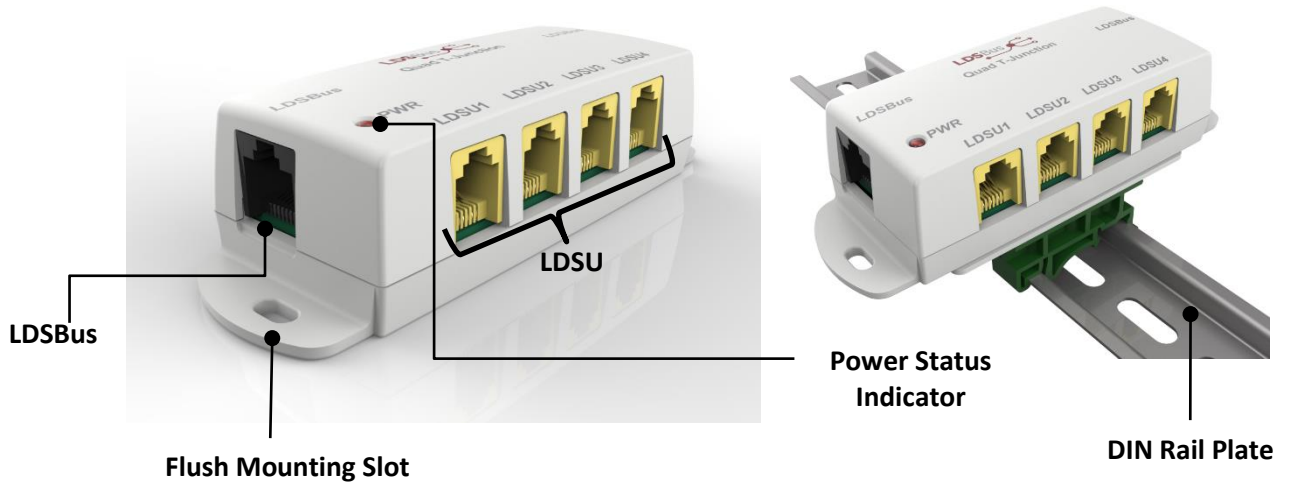
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### 3 Product Specifications

<b>Features</b>	Interface	RS485
	LED Indicator	Red LED (Power On)
	Mounting	Flush Mount
DIN Rail Mount		
<b>Power</b>	Input Voltage	24V DC Bus Power
	Input Max. Current	200mA
	Output Voltage	5V DC (LDSU Ports)
	Output Max. Current	800mA
<b>Physical Characteristics</b>	Color	White
	Housing	Polycarbonate
	Dimensions	L117.6mm x W42.9mm x H29.7mm
<b>Environmental Limits</b>	Operating Temperature	0 to 70°C
	Storage Temperature	-20 to 85°C
	Ambient Relative Humidity	5 to 95% (non-condensing)
<b>Package Contents</b>	Device	1x LDSBus HVT-Junction
	Installation (Optional)	1x DIN Rail Bracket Set

**Table 1 - LDSBus HVT Junction Specifications**

## 4 Hardware Features



**Figure 1 - LDSBus HVT-Junction Flush Mount / DIN Rail Plate – Hardware Features**

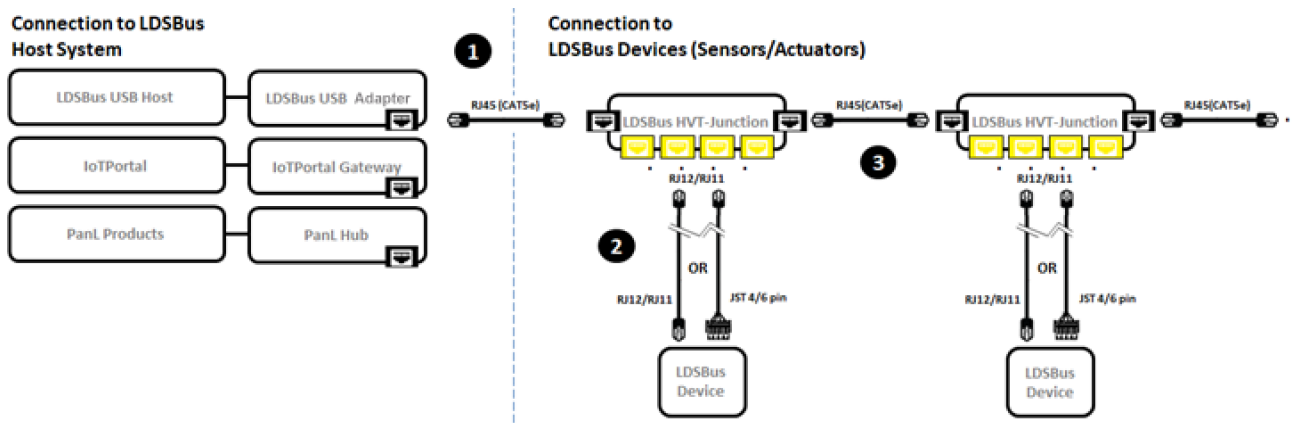
## 5 Connection Diagram

Figure 2 illustrates the connection of the LDSBus HVT-Junction (LDSBus Device) in an LDSBus system.

### Setup Instructions:

1. Connect the first LDSBus HVT-Junction to any of the LDSBus Host Systems using a RJ45 (CAT5e) cable.
2. Connect the configured LDSBus Device(s) to the LDSBus HVT-Junction as shown in Figure 2.
3. If there is more than one LDSBus HVT-Junction, chain them together as shown in Figure 2.

Please visit <http://bit.ly/ldsbus-resources> to view the full application, setup and installation guides.

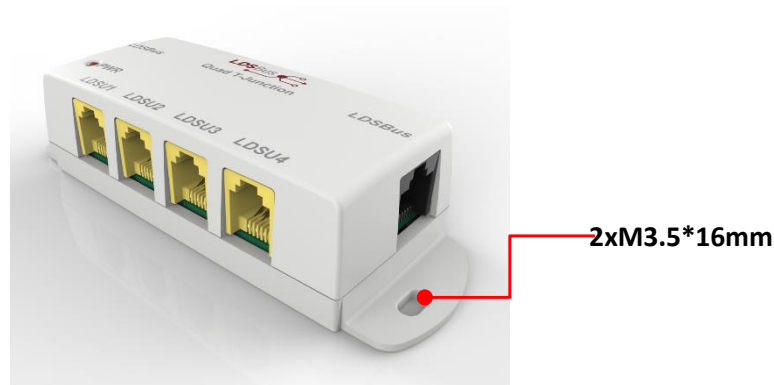


**Figure 2 - LDS Bus – HVT Junction in LDSBus System – Connection Diagram**

## 6 Mounting Options

### 6.1 Flush Mount

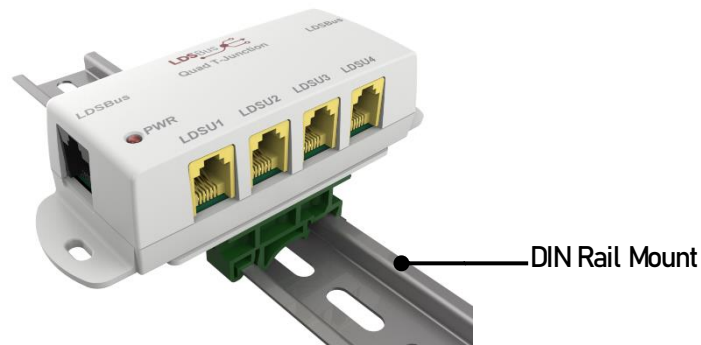
The LDSBus HVT Junction can be flush mounted directly on a wall or any flat surface using 2 M3.5\*16mm (thread) screws.



**Figure 3 - LDSBus HVT-Junction - Flush Mounting**

### 6.2 DIN Rail Mount

The LDSBus HVT Junction can be mounted on a DIN Rail using the LDSBus DIN Rail Mount set. This set is optional and includes the bracket and mounting screws.



**Figure 4 - LDSBus HVT-Junction - DIN Rail Mount**

## 7 Mechanical Dimension

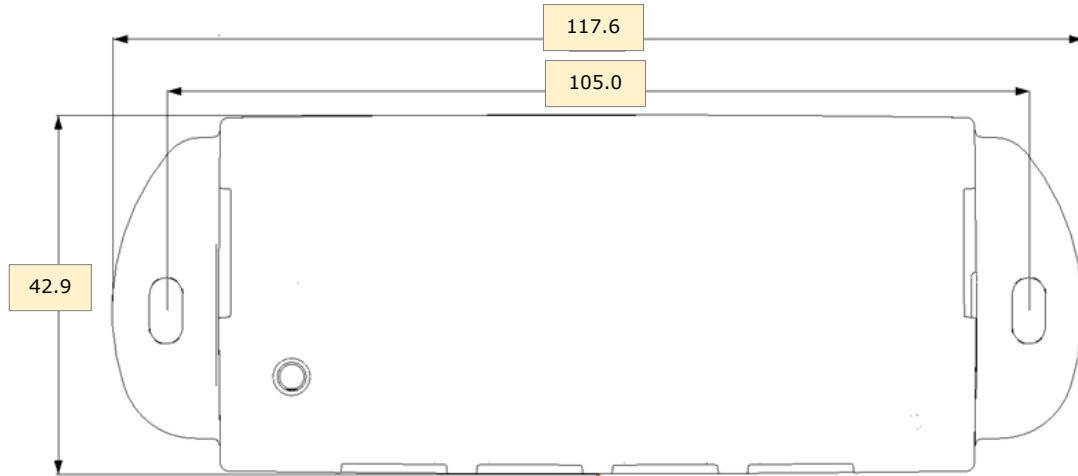


Figure 5 - LDSBus HVT-Junction Dimension – Top View



Figure 6 - LDSBus HVT-Junction Dimension – Side View

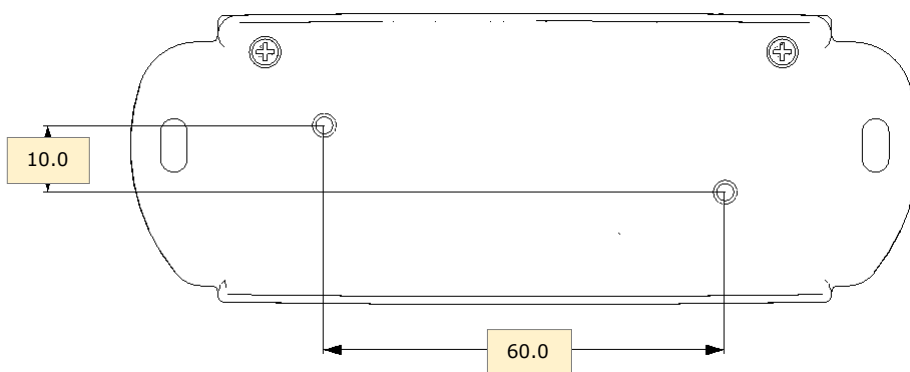


Figure 7 - LDSBus HVT-Junction Dimension – Bottom View

**Note:** All dimensions are in millimetres.



## 8 Contact Information

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## Appendix A - References

### Document References

[BRTSYS AN 001 LDSBus Configuration Utility User Guide](#)

[BRTSYS API 001 LDSBus Python SDK Guide](#)

[HVT Junction Quick Start Guide](#)

### Acronyms and Abbreviations

Terms	Description
DC	Direct Current
LED	Light Emitting Diode
IoT	Internet of Things
HVT-Junction	High Voltage T-Junction

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## Appendix C – Revision History

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Product Page: <https://brtsys.com/ldsbus/>  
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Revision	Changes	Date
Version 1.0	Initial Release	27-10-2021
Version 1.1	Updated release under BRT Systems	14-09-2022