

# Kvaser DB9-Power Inlet User's Guide



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<https://www.kvaser.com>

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## **1 About this manual**

This manual is intended for Kvaser DB9-Power Inlet users. This document contains a description of the hardware's properties.

## 2 Introduction

This section will describe the functions and features of the Kvaser DB9-Power Inlet.

### 2.1 Welcome to Kvaser DB9-Power Inlet



Figure 1: Kvaser DB9-Power Inlet

Kvaser DB9-Power Inlet is a power injector for CAN busses from a DC power jack into one female D-SUB9 connector. The Kvaser DB9-Power Inlet also has one unpowered male D-SUB9 connector for connecting to the CAN network. The Kvaser DB9-Power Inlet provides a simple and safe way to supply Kvaser bus powered interfaces with power, such as Kvaser's Blackbird and Memorator series.

Device	Product Number (EAN)
Kvaser DB9-Power Inlet	73-30130-00973-8

Table 1: Kvaser DB9-Power Inlet device and product number.

## **2.2 Major features**

- Acts as a power injector through the female D-SUB9 connector only.
- Connects to power supply using a standard 2.0 mm DC power connector.
- A complementary 12 V DC, 1 A power supply is included.

### 3 Kvaser DB9-Power Inlet hardware

Kvaser DB9-Power Inlet is a power injector for CAN buses which supplies power from pin 1 (center) of the DC 2.0 mm Power jack to pin 9 on the female D-SUB9 connector. DC ground, pin 2 (outside) of the power jack is connected to pin 3 of both the female and male D-SUB9 connector. Pin 1 to 8 of the female and male D-SUB9 connector are interconnected, see Table 2.

male D-SUB9	female D-Sub9	DC Jack
1	1	Not connected
2	2	Not connected
3	3	2 (outside)
4	4	Not connected
5	5	Not connected
6	6	Not connected
7	7	Not connected
8	8	Not connected
Not connected	9	1 (center)

Table 2: Pin configuration of the Kvaser DB9-Power Inlet.

#### 3.1 Power Distribution

The Kvaser DB9-Power Inlet should be powered from an external DC power supply, via a 2.0 x 6.3 mm connector, providing a power source for Kvaser CAN interfaces via CAN\_V+ (pin 9) in the female D-SUB9 connector.

## 4 Appendices

In this section you will find technical information about the Kvaser DB9-Power Inlet.

### 4.1 Technical data

In Table 3 below you will find the technical specifications of Kvaser DB9-Power Inlet.

Galvanic isolation	No
Supply Voltage	Up to 35 V, 1 A
Dimensions	55 x 90 x 30 mm
Weight	100 g
Operating temperature	-30 °C to +80 °C
Storage temperature	-40 °C to +85 °C
Relative humidity	0 % to 85 % (non-condensing.)

Table 3: Technical Specifications.



## 5 Disposal and Recycling Information



When this product reaches its end of life, please dispose of it according to your local environmental laws and guidelines.

For information about Kvaser's recycling programs, visit:  
<https://www.kvaser.com/en/kvaser/recycling-policy.html>

## 6 Legal acknowledgements

### 6.1 Usage warning



#### **WARNING FOR ALL USERS**

WARNING! - YOUR USE OF THIS DEVICE MUST BE DONE WITH CAUTION AND A FULL UNDERSTANDING OF THE RISKS!

THIS WARNING IS PRESENTED TO INFORM YOU THAT THE OPERATION OF THIS DEVICE MAY BE DANGEROUS. YOUR ACTIONS CAN INFLUENCE THE BEHAVIOR OF A CAN-BASED DISTRIBUTED EMBEDDED SYSTEM, AND DEPENDING ON THE APPLICATION, THE CONSEQUENCES OF YOUR IMPROPER ACTIONS COULD CAUSE SERIOUS OPERATIONAL MALFUNCTION, LOSS OF INFORMATION, DAMAGE TO EQUIPMENT, AND PHYSICAL INJURY TO YOURSELF AND OTHERS. A POTENTIALLY HAZARDOUS OPERATING CONDITION IS PRESENT WHEN THE FOLLOWING TWO CONDITIONS ARE CONCURRENTLY TRUE: THE PRODUCT IS PHYSICALLY INTERCONNECTED TO A REAL DISTRIBUTED EMBEDDED SYSTEM; AND THE FUNCTIONS AND OPERATIONS OF THE REAL DISTRIBUTED EMBEDDED SYSTEM ARE CONTROLLABLE OR INFLUENCED BY THE USE OF THE CAN NETWORK. A POTENTIALLY HAZARDOUS OPERATING CONDITION MAY RESULT FROM THE ACTIVITY OR NON-ACTIVITY OF SOME DISTRIBUTED EMBEDDED SYSTEM FUNCTIONS AND OPERATIONS, WHICH MAY RESULT IN SERIOUS PHYSICAL HARM OR DEATH OR CAUSE DAMAGE TO EQUIPMENT, DEVICES, OR THE SURROUNDING ENVIRONMENT.

WITH THIS DEVICE, YOU MAY POTENTIALLY:

- CAUSE A CHANGE IN THE OPERATION OF THE SYSTEM, MODULE, DEVICE, CIRCUIT, OR OUTPUT.
- TURN ON OR ACTIVATE A MODULE, DEVICE, CIRCUIT, OUTPUT, OR FUNCTION.
- TURN OFF OR DEACTIVATE A MODULE, DEVICE, CIRCUIT, OUTPUT, OR FUNCTION.
- INHIBIT, TURN OFF, OR DEACTIVATE NORMAL OPERATION.
- MODIFY THE BEHAVIOR OF A DISTRIBUTED PRODUCT.
- ACTIVATE AN UNINTENDED OPERATION.
- PLACE THE SYSTEM, MODULE, DEVICE, CIRCUIT, OR OUTPUT INTO AN UNINTENDED MODE.

ONLY THOSE PERSONS WHO:

(A) ARE PROPERLY TRAINED AND QUALIFIED WITH RESPECT TO THE USE OF THE DEVICE,

(B) UNDERSTAND THE WARNINGS ABOVE, AND

(C) UNDERSTAND HOW THIS DEVICE INTERACTS WITH AND IMPACTS THE FUNCTION AND SAFETY OF OTHER PRODUCTS IN A DISTRIBUTED SYSTEM AND THE APPLICATION FOR WHICH THIS DEVICE WILL BE APPLIED, MAY USE THE DEVICE.

PLEASE NOTE THAT YOU CAN INTEGRATE THIS PRODUCT AS A SUBSYSTEM INTO HIGHER-LEVEL SYSTEMS. IN CASE YOU DO SO, KVASER AB HEREBY DECLARES THAT KVASER AB'S WARRANTY SHALL BE LIMITED TO THE CORRECTION OF DEFECTS, AND KVASER AB HEREBY EXPRESSLY DISCLAIMS ANY LIABILITY OVER AND ABOVE THE REFUNDING OF THE PRICE PAID FOR THIS DEVICE, SINCE KVASER AB DOES NOT HAVE ANY INFLUENCE ON THE IMPLEMENTATIONS OF THE HIGHER-LEVEL SYSTEM, WHICH MAY BE DEFECTIVE.

## 6.2 EU Regulatory Compliance



### EU Declaration of Conformity (DoC)

<b>We</b>			
Company Name:	Kvaser AB	City:	Mölnadal
Postal address:	Aminogatan 25	Telephone number:	+46 31 886344
Postcode:	431 53	E-mail address:	sales@kvaser.com
<b>declare that the DoC is issued under our sole responsibility and belongs to the following product:</b>			
Product:	Kvaser DB9-Power Inlet		
<b>Object of the declaration</b> (identification of apparatus allowing traceability):			
Product:	Kvaser DB9-Power Inlet		
Type:	73-30130-00973-8		
<b>The object of the declaration described above is in conformity with the relevant Union harmonisation legislation:</b>			
RoHS recast Directive 2011/65/EU (Art. 4.1)			
<b>The following harmonised standards and technical specifications have been applied</b>			
(title, date of standard/specification):			
EN 50581 (2012)			
<b>Signed for and on behalf of:</b>			
Mölnadal	2019-12-05		
Place of issue	Date of issue		

## 6.3 FCC Regulatory Compliance



### Federal Communications Commission (FCC) Compliance Information Statement

**IDENTIFICATION OBJECT:**

Product: Kvaser DB9-Power Inlet

Type: 73-30130-00973-8

**APPLICABLE COMPLIANCE STATEMENTS:**

CFR Title 47 Part 15 §15.107, §15.109

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

**RESPONSIBLE PARTY (IN USA) NAME:**

Kvaser Inc.

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Mission Viejo, CA 92691

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## 7 Document Revision History

Version history for document UG\_98213\_db9\_power\_inlet:

Revision	Date	Changes
1.0	2018-05-04	Initial version
1.1	2018-05-16	Updated supply voltage and compliance text
2.0	2018-10-15	Updated EU Regulatory Compliance, minor textual updates
2.1	2019-08-09	Url protocol updated
2.2	2020-01-27	Added sdoc
2.3	2021-09-08	Added DC for external power supply
2.4	2022-03-15	Minor textual changes