

Features

- CAN FD and 2.0B compatibility, supporting speeds up to 5Mbit/s.
- Supports multiple protocols:
 - Socketcand ([coming soon](#))
 - Tritium (TCP and UDP)
 - PEAK-System ([coming soon](#))
- Easy selectable CAN termination built-in.
- Status and power indication LEDs.
- Remote management via Modbus.
- Instant startup.
- DHCPv4 automatic IP address assignment.
- Micro form factor and 1-watt typical power usage.
- DC supply from 9 to 30V.
- Optional IEEE 802.3af Power-over-Ethernet support.



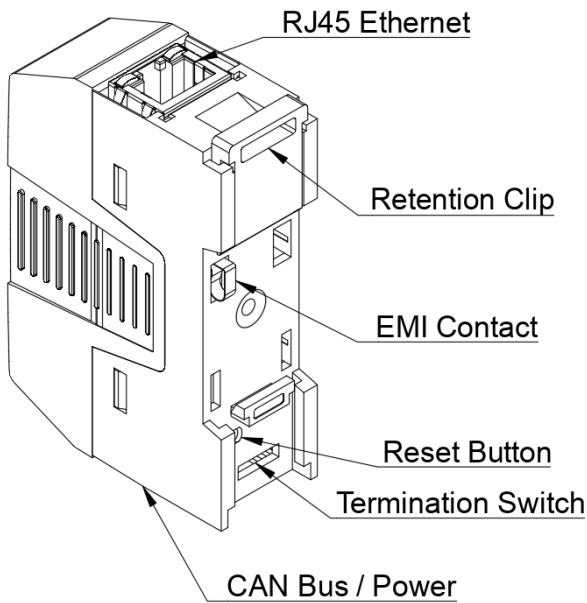
Description

The UMI CAN FD Gateway is a versatile connectivity solution designed to facilitate seamless communication between CAN Bus systems and Ethernet/IP networks. It is ideal for integrating legacy automotive, industrial, or embedded systems into networked environments for monitoring, control, and diagnostics.

Table of Contents

- [Features](#)
- [Description](#)
- [Table of Contents](#)
- [1. Interfaces](#)
- [2. Electrical characteristics](#)
- [3. Mechanical characteristics](#)
- [Revision history](#)
- [Notice](#)

1. Interfaces



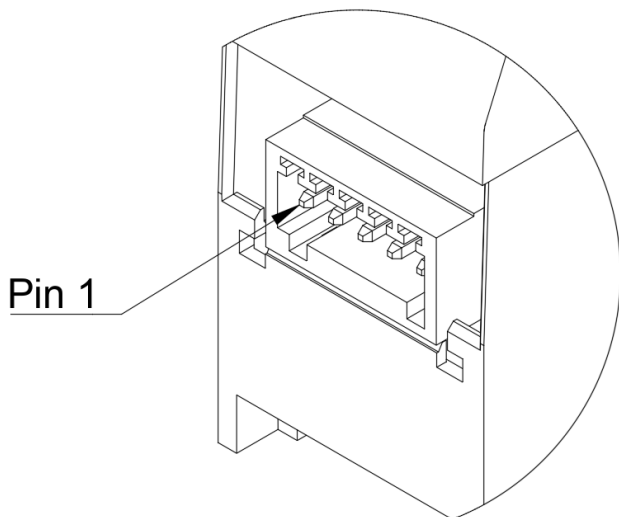
Pin	Signal
1	CAN shield
2	V+
3	Ground
4	CAN high (dominant high)
5	CAN low (dominant low)

Table 1: CAN Bus plug pinout.

1.1. CAN Bus / Power

The device features a screw-less 5-pin connector for providing power and connection of the CAN Bus signals (high, low, and shield). For pinout information, see the user manual.

Replacement plugs can be purchased directly from UMI (contact@umi.engineering) or directly from Würth Elektronik (PN: 691381000005).



1.2. Ethernet / PoE+

The Ethernet jack located at the top of the device follows the standard pinout for 10 BASE-T and 100 BASE-T networking. A crossover cable is not required when being used for direct connections.

Optionally the gateway can be purchased with a Power-over-Ethernet (PoE) option that allows power to be provided by means of passive or active (IEEE 802.3af) PoE. The user manual contains details for how to best use Power-over-Ethernet.

1.3. EMI Contact

Present on the back of the gateway is an integral EMI contact for creating a continuous earth path between the Ethernet shield and the DIN rail it is attached to.

2. Electrical characteristics

2.1. Absolute maximum ratings

Parameter	Conditions	Min	Max	Unit
Supply voltage range	On pins V+ and Ground	6	36	V
CAN Bus	On pins CAN high and CAN low to Ground	-58	58	V
CAN Bus	On pins CAN high and CAN low	-27	+27	V
Storage Temperature		-40	+105	°C

Table 2: Absolute maximum ratings.

2.2. Recommended operating conditions

Parameter	Min	Typ	Max	Unit
Supply Voltage	9		30	V
Power Usage (@ 24V)		1	3	W
Operating Temperature	-20		85	°C

Table 3: Recommended operating conditions.

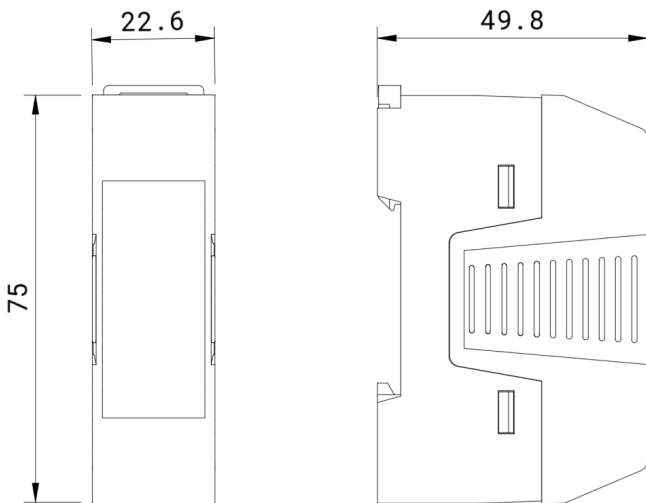
2.3. Electrostatic discharge immunity

Parameter	Conditions	Min	Max	Unit
CAN Bus	At pins CANH and CANL	-8	+8	kV
Power	At pins VDC and GND	-4	+4	kV

Table 4: ESD immunity.

3. Mechanical characteristics

3.1. Outside dimensions



Parameter	Value	Unit
Width	22.6	mm
Height ^[1]	75.0	mm
Depth	49.8	mm

Table 5: Outer dimensions.

1. Without plug installed.

For guidance on installation, consult the user manual.

Revision history

Revision	Date	Description	Approved
0.1.0	2024-03-11	Initial release.	LK
0.1.1	2024-05-10	Changes to feature list.	LK
0.1.2	2024-05-30	Add table of contents. Remove ordering information section.	LK

Notice

All product specifications and data are subject to change without notice to improve reliability, function, design or otherwise. Purchasers should obtain the latest relevant information on UMI products before placing orders.

Information in this document supersedes and replaced information previously supplied in any prior versions of this document.