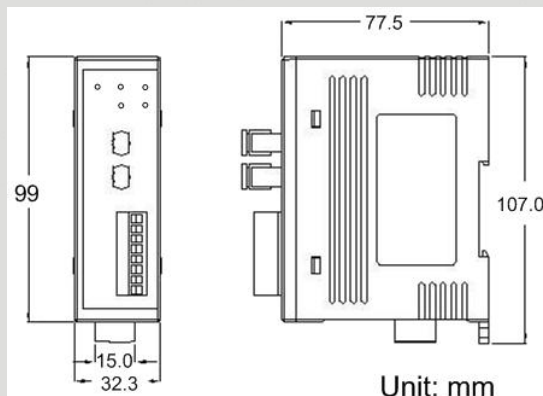




## CAN to Fiber Bridge



I-2533



Unit: mm

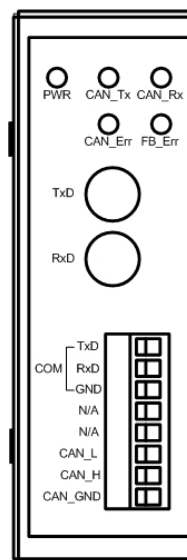
Dimensions

The I-2533 is a local CAN bridge used to establish a connection between two CAN bus systems via fiber optic transmission medium. By using I-2533, the transmission distance limitation of the fiber optic system will not decrease due to the higher CAN baud rate. It means that the total network distance can be extended. Moreover, the bus error on one CAN network don't affect the operation of another CAN network. The two CAN network can communicate with each other by using different CAN baud rate for highly flexibility. These features help users' applications more powerful and flexible.

## Features

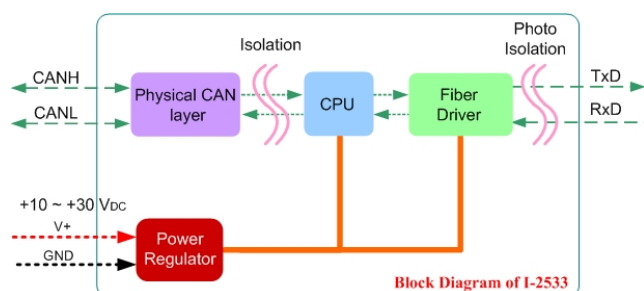
- Fiber Port: ST (Multi-mode)
- Maximum transmission distance up to 2 km at any CAN baud rate
- 82C250 CAN transceiver
- 2500 Vrms iCoupler isolation on the CAN side
- Support both CAN 2.0A and CAN 2.0B specification
- Fully compatible with the ISO 11898-2 standard
- Built-in switch for 120  $\Omega$  terminator resistor
- Up to 100 CAN nodes on the CAN channel
- Removable terminal block
- Mount easily on DIN-Rail
- Rotary switch for CAN baud rate configuration
- Allow user-defined baud rate
- Fiber broken line detection
- Utility tool for message filter configuration

## Pin Assignments

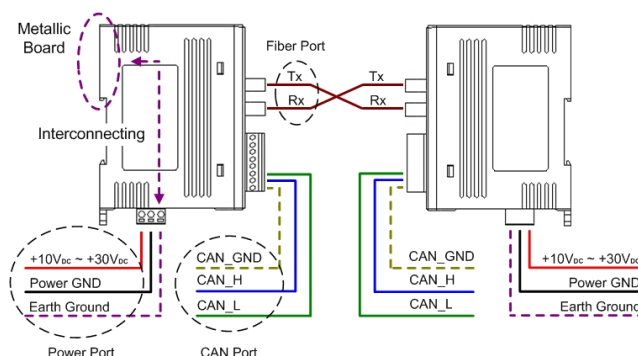


| NO. | Pin name  |
|-----|-----------|
| TxD | FiberTx/D |
| RxD | FiberRx/D |
| 1   | COM Tx/D  |
| 2   | COM Rx/D  |
| 3   | COM GND   |
| 4   | N/A       |
| 5   | N/A       |
| 6   | CAN_L     |
| 7   | CAN_H     |
| 8   | CAN_GND   |

## Block Diagram



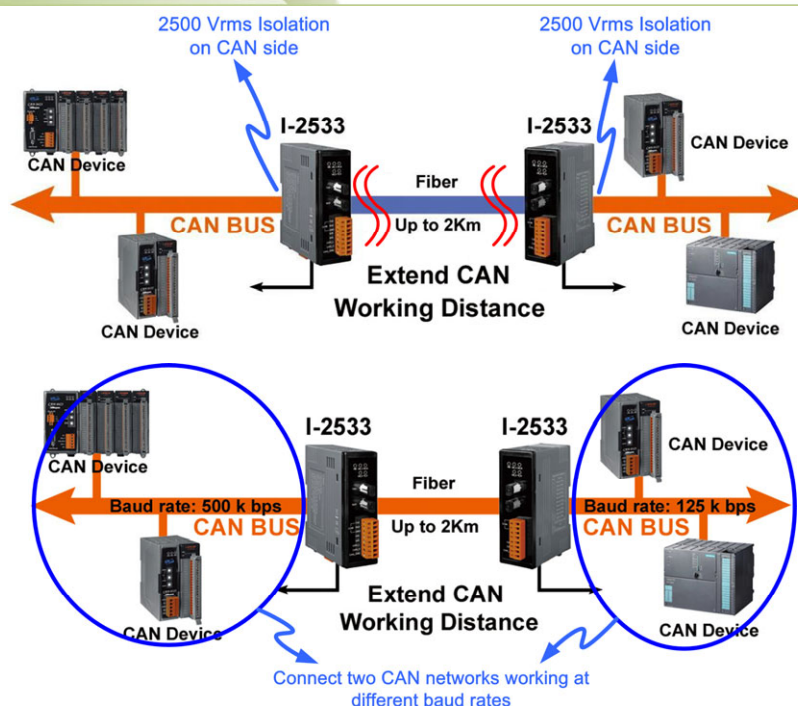
## Wire Connection



## Hardware Specifications

| CAN Interface             |   |
|---------------------------|---|
| Connector                 | Screwed terminal block (CAN_GND, CAN_L, CAN_H)                            |
| Baud Rate (bps)           | 10 k ~ 1 M  |
| Transmission Distance (m) | Depend on baud rate   |
| Terminator Resistor       | Switch for 120Ω terminator resistor                                       |
| Isolation                 | 3000 V <sub>DC</sub> for DC-to-DC, 2500 V <sub>rms</sub> for photo-couple |
| Specification             | ISO-11898-2, CAN 2.0A and CAN 2.0B  |
| Time Delay                | 120us max (CAN to fiber or fiber to CAN)                                  |
| Fiber Interface           |   |
| Connector                 | ST (Multi-mode)   |
| Wave Length               | 850 nm  |
| Fiber Cable               | 50 / 125 μm , 62.5 / 125 μm, 100 / 140 μm (62.5 / 125μm is recommended)   |
| Transmission Distance (m) | 2 km max (in 62.5 / 125 μm fiber cable) at any CAN baud rate              |
| LED                       |   |
| Round LED                 | PWR LED, CAN_Tx LED, CAN_Rx LED, CAN_Err LED, FB_Err LED                  |
| Power                     |   |
| Power supply              | Unregulated +10 ~ +30 V <sub>DC</sub>                                     |
| Protection                | Power reverse polarity protection, Over-voltage brown-out protection      |
| Power Consumption         | 3 W   |
| Mechanism                 |   |
| Installation              | DIN-Rail  |
| Dimensions                | 32.3mm x 77.5mm x 99.0mm (W x L x H)                                      |
| Environment               |   |
| Operating Temp.           | -25 ~ 75 °C   |
| Storage Temp.             | -30 ~ 80 °C   |
| Humidity                  | 10 ~ 90% RH, non-condensing   |

## Application



## Ordering Information

|                  |                            |
|------------------|----------------------------|
| <b>I-2533 CR</b> | CAN to fiber bridge (RoHS) |
|------------------|----------------------------|