VTK-RELAY

Super Slim and Ruggedized Vehicle Relay Module

Main Features

- 4 x Form C relay with 10A @12VDC/5A @24VDC
- 4 x Isolated digital inputs
- 4 x Isolated digital outputs
- 1 x Analog input and 1 x frequency input

- Various communication interface of RS-232 and USB 2.0
- Wide range DC input from 9~36V
- Wide operating temperature -40°C~70°C
- Compatible with CE, FCC class B

Product Overview

VTK-RELAY is a super slim, ruggedized RELAY module. It is remotely controlled through an on board MCU and transmitted via RS-232 or USB 2.0 communication. With 4 x relay output, 4 x DI, 4 x DO, 1 x analog input, and 1 x frequency input for customer easily to setup vehicle system. It allows to comply with stringent MIL-STD-810G military standard in rugged, compact mechanism. Because of the super slim design, it is especially for the vehicles with limited space to control the system, but without compromising with its space to scarify its features. VTK-RELAY contains no DIP switches, by merely issuing a command from the vehicle computer, you can change RELAY/DI/DO setting to reach your application.

Specifications

Relay Output
- Channel: 4 channels
- Type: Form C
- Connector: 3 x plug-in terminal blocks
- Contact current rating: 10A @12VDC/5A @24VDC

Digital Input
- Channel: 4 channels
- Sensor type: wet contact (default)/dry contact
- I/O mode: DI
- Wet contact: 9 to 36V, 12V @ 1.1mA/24V @ 2.2mA
- Dry contact: external 0 to 36V
- Wet or dry contact should be selected by SW utility

Digital Output
- Channel: 4 channels
- Sensor type: wet contact (default)/dry contact
- I/O mode: DO
- Wet contact: 9 to 36V, 9V @13.2mA/12V @17.6mA/24V @25.29 mA/ 36V @52.7mA
- Dry contact: external 0 to 36V
- Wet or dry contact should be selected by SW utility

Analog Input
- Channel: 1 channel
- Resolution: 10 bits
- I/O mode: voltage/current input
- Input range: 0 to 36V, 0 to 3A

Frequency Input
- Channel: 1 channel
- I/O mode: frequency (PWM) input
- Input frequency range: 2Hz to 6KHz

Power Requirements
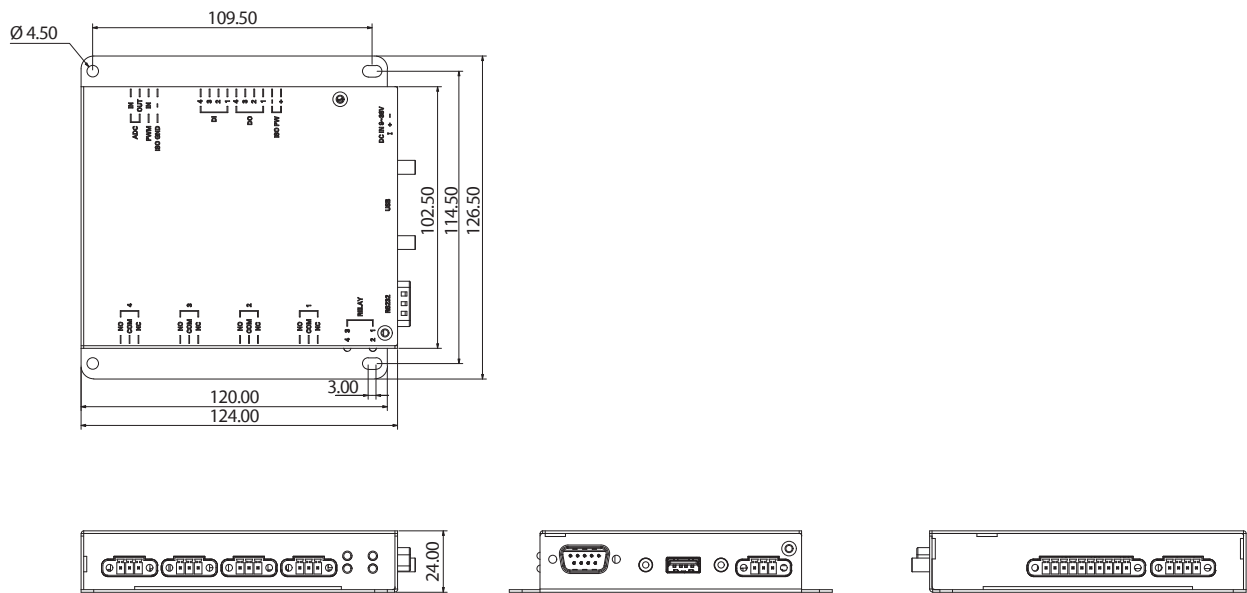- Input voltage: 9 to 36 VDC
- Input current: 70mA @12 VDC

I/O Interface-Relay Side
- 4 x Relay's 3 plug-in terminal blocks for N.O./COM/N.C.
- 4 x LED indicator for activated relays 1 to 4

I/O Interface-IO Side
- 1 x DB9 for RS-232
- 1 x Type A USB 2.0
- 1 x DC input 9~36V (3 plug-in terminal block for VIN/IGN/GND)

NEXCOM

Dimension Drawing

I/O Interface-COM/USB Side
- 1 x 10 plug-in terminal blocks for 4 x DI/4 x DO/ISO PW/ISO GND
- 1 x 4 plug-in terminal blocks for Analog Input/Frequency Input/ISO GND

Operating System
- Windows driver
- Linux (by request)

Dimensions
- 124mm (W) x 126mm (D) x 24mm (H) (4.88" x 4.96" x 0.94")
- Weight: 0.42kg (0.9lbs)

Environment
- Temperature
  - Operating temperatures: -40°C to 85°C
  - Storage temperatures: -45°C to 85°C
  - Damp heat test per EN60068-2-30
- Humidity
  - IEC60068-2-3, damp heat steady state test, 40C, 95%, 48hrs
- Vibration
  - IEC 60068-2-64, 2G
  - Operating: MIL-STD-810G, 514.6C Procedure 1, Category 4
  - Storage: MIL-STD-810G, 514.6E Procedure 1, Category 24
- Shock
  - MIL-STD-810G, 516.6 Procedure I, trucks and semi-trailers=40g
  - Crash hazard: Procedure V, ground equipment=75g

Certifications (compatible)
- CE
- FCC Class B

Ordering Information
- **VTK-RELAY-01 (P/N: TBD)**