

DI/DO/T2 to RS232 Converter

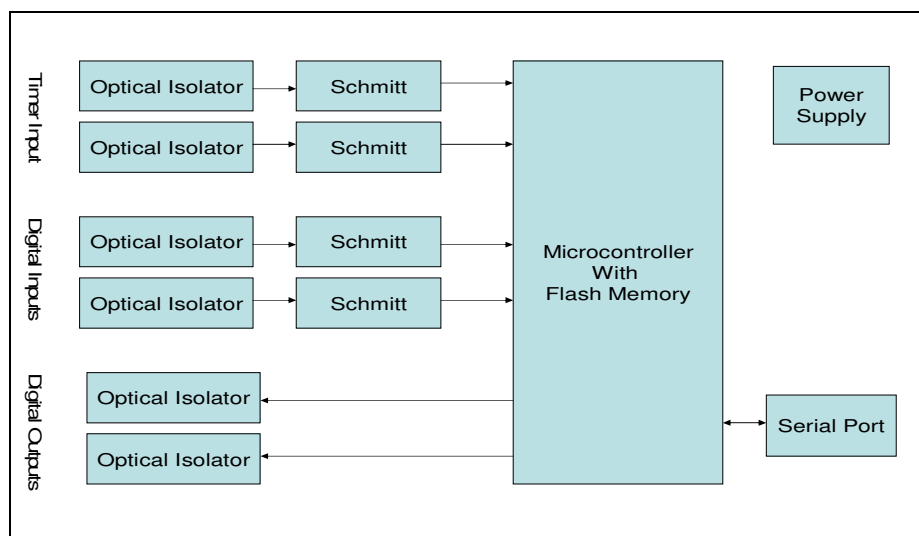
DI/DO/T2 Converter (KHP-DC1)

Kaihatsu Techno Centre Pvt. Ltd. is engaged in designing and development of Supervisory Control and Data Acquisition (SCADA) software.

While deploying the software, it was noticed that there is a need for various small hardware interface units. They are mainly needed because small interfaces are needed to connect to PC serial port. The DI/DO/T2 converter is one such device. It has two Digital Input Ports, Two Digital Output ports and Two timer ports. All these ports can be read or written through serial port using standard communication software. One timer port is an accumulating type and other is averaging type. Accumulating type can be reset using a serial port. The averaging type can be averaged on every second, minute, hour or day basis.

This product is an ideal device for small interfaces such as rain gauge sensor, wind sensor, solenoid activator, alarm hoot on / off control and many a like. Following are the features offered:

- **Digital Inputs:** Two optically isolated digital inputs. These inputs can work with TTL level signal. The status of these inputs can be read using standard serial communication software of a PC. This input is Schmitt input so any type of waveform is accepted.
- **Digital Outputs:** Two optically isolated digital outputs. These outputs can work with TTL level signal. The status of these outputs can be written using standard serial communication software of a PC.
- **Timer Input 1:** One optically isolated timer input. This input can work with TTL level signal. This is an accumulating timer. It gets incremented by every rising edge pulse on the input. This input is Schmitt input so any type of waveform is accepted. This timer can be read & can be reset using a serial port command sent by any standard serial communication software of a PC
- **Timer Input 2:** One optically isolated timer input. This input can work with TTL level signal. This is an averaging timer. It gets incremented by every rising edge pulse on the input. This input is Schmitt input so any type of waveform is accepted. These counts can be averaged on every second or every minute or every hour or every day. This timer averaging can be set using a serial port command sent by any standard serial communication software of a PC
- **RS 232 C Output:** All the values can be read or written or reset using any standard serial communication software of PC. As this is communication on standard serial port, the operating system is immaterial. Hence this device can work with DOS™, Windows™, Linux™, Unix™ or any other operating system.
- **Asynchronous or Synchronous:** The RS 232 C communication can be asynchronous or synchronous. It can be on three wire (Rx, Tx and Gnd) or on five wire (Rx, Tx, RTS, CTS and Gnd)
- **Power Off Memory:** The last status of all the inputs and outputs is stored in the memory. Hence after getting the power back, the last status is retained.
- **Programmable Indicator:** There are two LEDs provided. They can be programmed using a standard serial port command to monitor, any digital input or digital output or incoming timer pulses or Rx/Tx communication. .
- **Power On Burst:** When this device is powered, the configuration menu, present status is sent on the serial port. This is very useful for diagnostics.



Technical Specifications:

- **Supply Voltage** : 9 V DC to 12 V DC. (48V on request)
90 V to 270 V AC/DC SMPS is provided
- **Supply Current** : 50 mA
- **RS 232 C Interface** : 9,600 bps for all ports, One Stop, One Start, 8 Bit Data and No parity
Asynchronous three wire (Rx, Tx & Gnd)
Synchronous five wire (Rx, Tx, RTS, CTS and Gnd)
- **Output ports** : Optically Isolated TTL level.
Max current source 10 mA.
Voltage 0.75 V (Lo level) + 4.75 V (Hi level)
Isolation 1 KV
- **Input ports** : Optically Isolated TTL Schmitt level.
Input current 10 mA.(min) 50 mA (max)
Voltage trigger less than 1.8 V (Lo level) more than + 3.6 V (Hi level)
Isolation 1 KV
- **Timer Port** : Optically Isolated TTL Schmitt level.
Input current 10 mA.(min) 50 mA (max)
Voltage trigger less than 1.8 V (Lo level) more than + 3.6 V (Hi level)
Isolation 1 KV
Trigger at Rising edge.
Maximum Frequency: 4,000 Hz.
Accumulating: Counter accumulating till reset command given from serial port.
Averaging: Counter averages after every second or minute or hour or day as set by the serial port.
- **Power Off Memory** : 20 years
- **Mounting** : Four Screws or DIN Rail
- **Mechanical Dimensions** : 142 mm X 56 mm X 32 mm
- **Indicators** : Power On LED and Two programmable LEDs.
The LEDs can be programmed for indicating any input or output or timer pulses or Rx/Tx lines
- **Environment** : Temperature: -10°C to + 65°C.
Humidity: 0% to 95%
IP 61 casing can be provided



This Product is Designed and Developed by:

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