USB-2068-18

USB I/O Module with 10-ch DI and 8-ch Signal Relay

Features

- 10-ch digital input and 8-ch relay output
- Dry Contact and Wet Contact Selectable via Wire Connections
- Form C Relay Output
- Wide Operating Temperature Range
- USB Bus Powered
- Lockable USB cable
- Driver Free

Introduction

The USB-2068-18 is a full-speed USB I/O device with 8-ch Form C relay output and 10-ch digital input channels. All digital input channels can be used as 32-bit counters. In addition, the digital input channels are sink/source type and dry/wet contact selectable via wire connections. The USB-2068-18 also offers 18 LED indicators that can be used to monitor the status of the digital input and Signal output. Dual watchdog function that provided with configurable power-on and safe values ensures the device operates continuously, even in harsh environments.

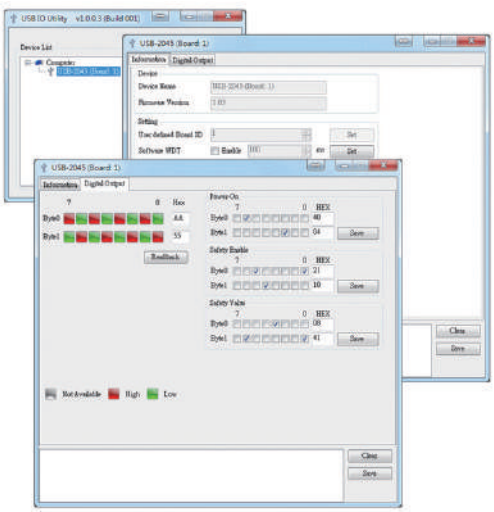
We also provide API library and demos with source code for Windows and Linux users to develop their own USB applications with various development tools (VB/C++/C#.NET/VB.NET/LabVIEW). Therefore, the USB-2068-18 is the perfect choose for you to implement I/O expansion via a plug-and-play USB interface.

Software

USB I/O Utility

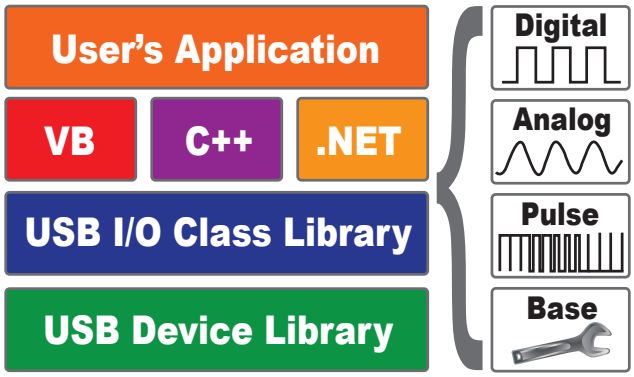
USB I/O Utility provides a simple way to easily test and instant acquire data for all ICP DAS USB I/O series modules without programming.

- Automatically scan all ICP DAS USB I/O modules
- Easily and quickly configure and test USB I/O modules
- Completely and precisely log I/O data for analysis



VB/C++/C#.NET/VB.NET/LabVIEW SDK

ICP DAS provides a SDK for USB I/O modules to help user to develop own project easily and quickly. The SDK can be supported in VB/C++/C#.NET/VB.NET/LabVIEW to fulfill project development.



Applications

- Automation
- Measurement and testing
- Laboratory research

System Specifications

USB	
Specification	USB 2.0 Full-Speed (12Mbps)
CPU Module	
Watchdog Timer	1 Hardware watchdog (1.6 second) 1 Software watchdog (Programmable)
EMS Protection	
ESD (IEC 61000-4-2)	4 kV contact for each terminal 8 kV air for random point
LED Indicators	
Status	3 x Power and Communication
	18 x Digital Input and Output
Power	
Consumption	2.3 W
Mechanical	
Dimensions (mm)	31 x 147 x 126 (W x L x H)
Environmental	
Operating Temperature	-25 ~ +75 °C
Storage Temperature	-40 ~ +85 °C
Humidity	10 ~ 95% RH, Non-condensing

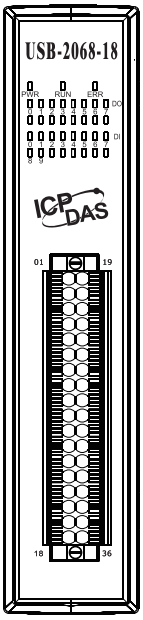
I/O Specifications

Digital Input/Counter		
Channels		10
Type		Dry Contact, Source Wet Contact, Sink/Source
Wet Contact	ON Voltage Level	+10 V_{DC} ~ +50 V_{DC}
	OFF Voltage Level	+4 V_{DC} Max.
Dry Contact	ON Voltage Leve	Close to GND
	OFF Voltage Level	Open
	Effective Distance	500 meters Max.
Max. Counts		32-bit
Frequency		500 Hz
Min. Pulse Width		1 ms
Input Impedance		10 KΩ
Overvoltage Protection		70 V_{DC}
Intra-module Isolation		3000 V_{DC}
Relay Output		
Channels		8 Form C
Contact Rating		AC:0.25 A @ 250 V_{AC} AC: 0.5 A @ 125 V_{AC} DC: 2A @ 30 V_{DC}
Electrical Endurance		2 x 10^5 ops (at 30 V / 2 A)
Mechanical Endurance		1 x 10^8 ops
Power on Value		Yes, Programmable
Safe Value		Yes, Programmable
Intra-module Isolation		3000 V_{DC}

Ordering Information

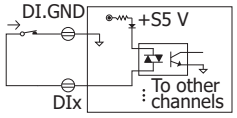
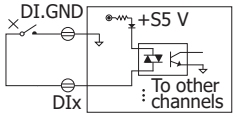
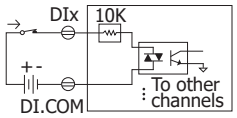
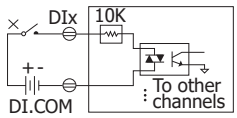
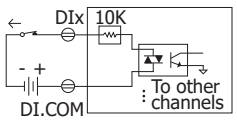
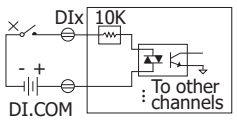
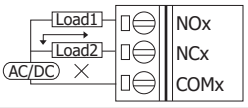
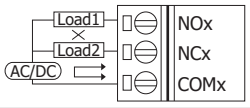
USB-2068-18 CR	USB I/O Module with 10-ch DI (Dry, Wet) and 8-ch Signal Relay (RoHS) Includes 1.5M USB Cable (CA-USB15)

Pin Assignments

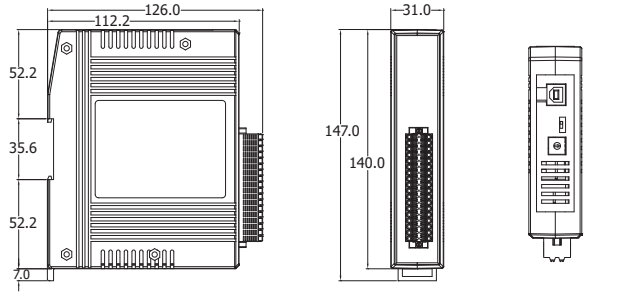


Pin Assignment	Terminal No.		Pin Assignment
NC6	01	19	NC0
COM6	02	20	COM0
NO6	03	21	NO0
NC7	04	22	NC1
COM7	05	23	COM1
NO7	06	24	NO1
D.GND	07	25	NC2
DI0	08	26	COM2
DI1	09	27	NO2
DI2	10	28	NC3
DI3	11	29	COM3
DI4	12	30	NO3
DI5	13	31	NC4
DI6	14	32	COM4
DI7	15	33	NO4
DI8	16	34	NC5
DI9	17	35	COM5
D.COM	18	36	NO5

Wire Connections

Input	ON	OFF
Dry Contact		
Wet Contact (Sink)		
Wet Contact (Source)		
Output	**ON State LED ON Readback as 1**	**OFF State LED OFF Readback as 0**
From C Relay Contact		

Dimensions (Units: mm)



Left View | Front View | Top View