



**USB-4018HS/USB-4018HS-16**  
 8 / 16-Channel High Speed Thermocouple  
 Measurement USB I/O Module

### Features

- 8/16-Channel Analog Inputs
- High Speed Thermocouple Measurement
- USB 2.0 Full-Speed (12 Mbps)
- No external power supply (USB Bus Powered)
- LED Indicate the Power status
- Lockable USB cable
- 3000 Vdc intra-module isolation



### Introduction

The USB-4000 series provided by ICP DAS is a new solution for data acquisition. It provides easy USB plug-and-play operation and equips accurate measurement for automation applications. Compared with the traditional PC-based cards like PCI, PC/104 and ISA cards, users can achieve data acquisition easier and quicker with USB-4000 series. The USB-4018 series is an 8 / 16-channel high speed thermocouple measurement module and supports thermocouple devices with J, K, T, E, R, S, B, N, C, L, M and  $L_{DIN43710}$  types. The USB-4018 series also feature intra-module isolation. The USB-4018 series provides extremely accurate thermocouple measurement and automatically cold-junction compensation for each channel. Besides, through USB-4000 series Utility, users can configure and test USB-4000 series directly and easily without any coding.

### Software

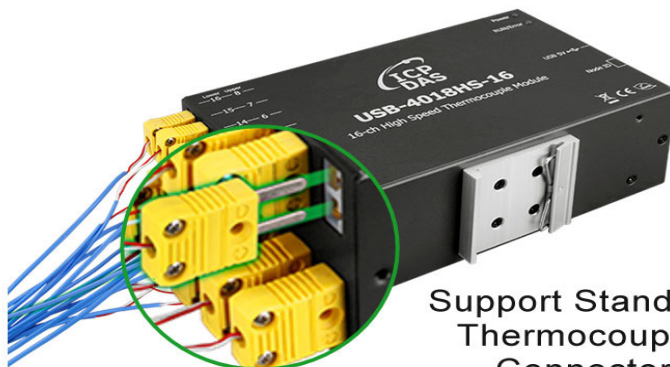
USB-4000 series Utility provides a simple way to easily test and instant acquire data for all ICP DAS USB-4000 series modules without programming.

### Applications

- SMD assembly manufacturing
- PC board manufacturing
- Footwear manufacturing
- Food industry
- Pharmaceutical industry
- Any temperature measurement required industries



Standard  
Thermocouple  
Connector



Support Standard  
Thermocouple  
Connector

## Specifications

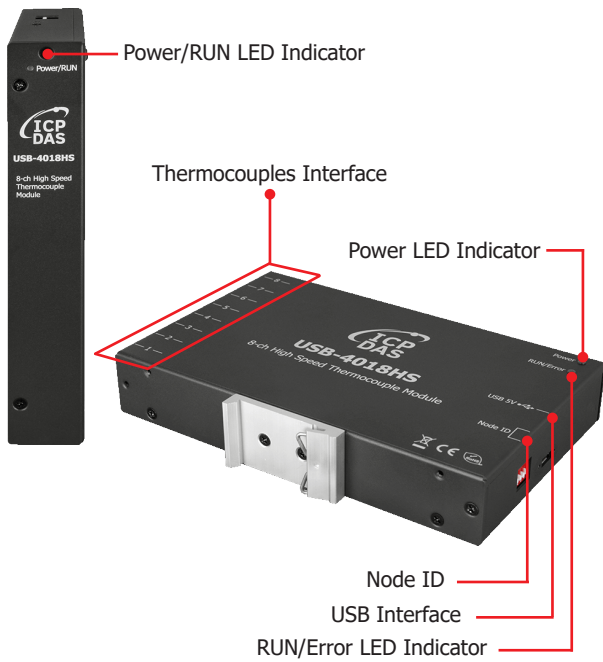
Model	USB-4018HS	USB-4018HS-16
<b>USB</b>		
Specification	USB 2.0 Full-Speed (12 Mbps)	
Driver	USB Virtual COM Port Driver for Windows 7/10/11 Linux OS (Kernel 2.4 or later version)	
Protocol	Modbus RTU	
<b>CPU Module</b>		
Watchdog Timer	1 Hardware watchdog (1.6 second) 1 Software watchdog (Programmable)	
<b>Temperature Measurement</b>		
Sensor Type	thermocouple : J, K, T, E, R, S, B, N, C, L, M, L DIN43710	
Channels	8	16
Resolution	0.1 °C	
Accuracy	±0.5 °C	
<b>Analog Input</b>		
Sampling Rate	100 Hz (each channel)	
<b>LED Indicators</b>		
Status	PWR : Yellow for normal operation    Error : Red for error indicator	
<b>Power</b>		
Consumption	0.17 W Max.	0.18 W Max.
<b>Isolation</b>		
Intra-module Isolation	Yes, 3000 V <sub>DC</sub>	
<b>Mechanical</b>		
Dimensions (W x L x H)	(113 x 169 x 29)mm	(113 x 169 x 54)mm
<b>Environmental</b>		
Operating Temperature	-25 ~ +75 °C	
Storage Temperature	-40 ~ +85 °C	
Humidity	10 ~ 95% RH, Non-condensing	

## Pin Assignments

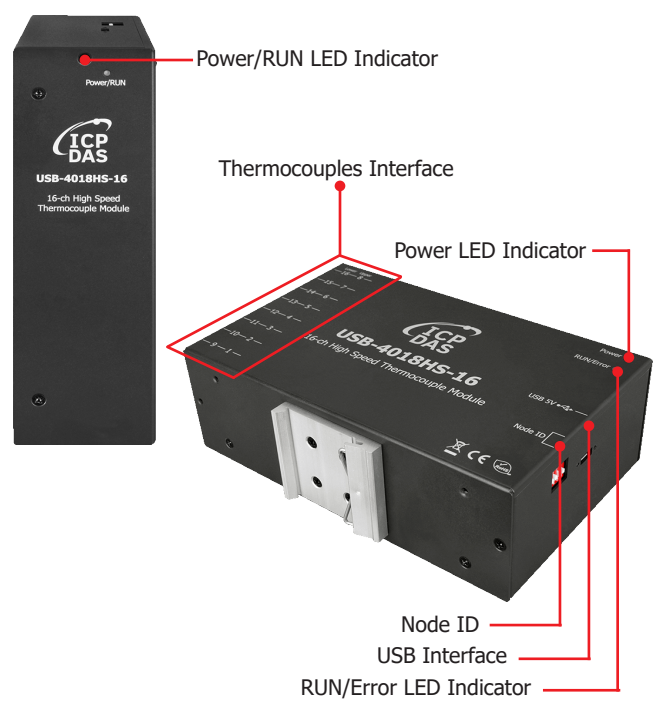


## Appearance

**USB-4018HS**

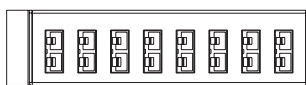
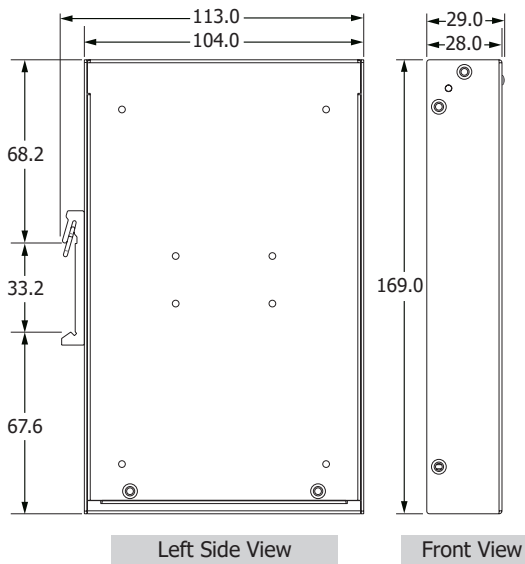


**USB-4018HS-16**

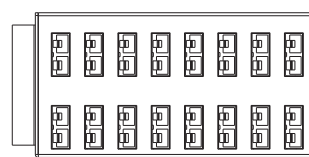
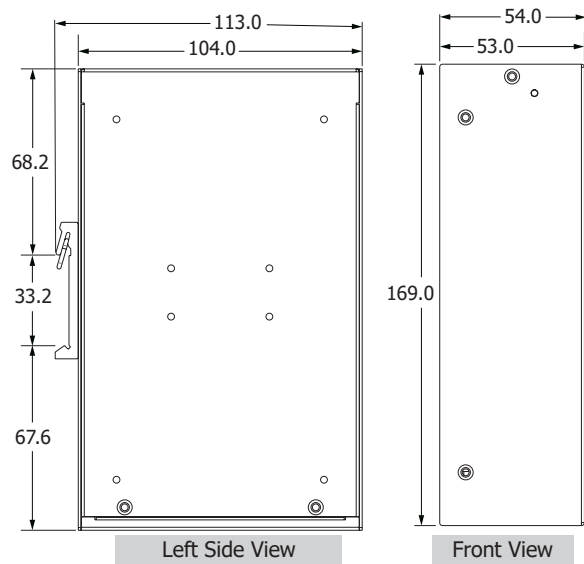


## Dimensions (Units: mm)

**USB-4018HS**



**USB-4018HS-16**



## Installation method



### DIN-Rail Mounting

USB-4018HS + Standard accessories  
USB-4018HS-16 + Standard accessories



### Combine-Wall Mounting

USB-4018HS x 2 + ASO-0057



### Upright - Wall Mounting

USB-4018HS + ASO-0015  
USB-4018HS-16 + ASO-0023



### Lay Flat - Wall Mounting

USB-4018HS + ASO-0059  
USB-4018HS-16 + ASO-0059

## Accessories

ASO-0059	ASO-0057	ASO-0015 / ASO-0023
		
Wall Mount Kit (W: 153 mm)	Wall Mount Kit (W: 153 mm)	ASO-0015(For USB-4018HS) Wall Mount Kit (W:28mm) ASO-0023(For USB-4018HS-16) Wall Mount Kit (W:44mm)

## Ordering Information

<b>USB-4018HS CR</b>	8-Channel High Speed Thermocouple Measurement USB I/O Module with 3000 Vdc intramodule isolation (RoHS)
<b>USB-4018HS-16 CR</b>	16-Channel High Speed Thermocouple Measurement USB I/O Module with 3000 Vdc intra-module isolation (RoHS)