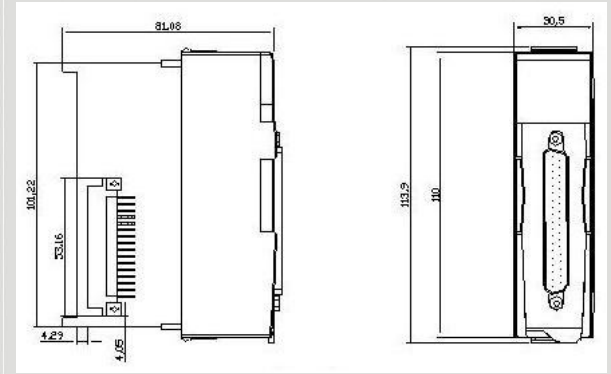# HART Series Products

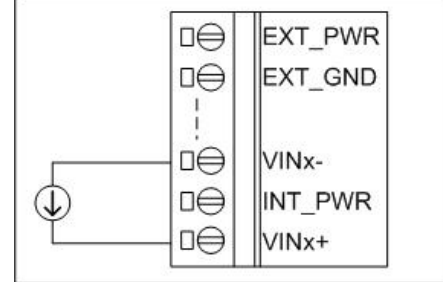## HART module for PAC

I-87H17W

Dimensions

The I-87H17W is a HART analog input module. It is a data acquisition and control modules, providing analog-to-digital, and Highway Addressable Remote Transducer. The modules can be remotely controlled using a set of commands, which we call the DCON protocol. Communication between the module and the host is in ASCII format via an RS-485 bi-directional serial bus standard. Baud Rates are software programmable and transmission speeds of up to 115.2K baud can be selected. ICP DAS also provides API library for users to develop their own program by VC,VB , C# or VB.Net environment.
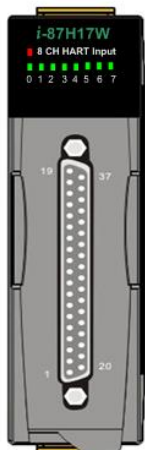
Features

- Support 4~20mA current input
- Support HART protocol
- 2- or 4-wire transmitters
- With a built-in resistor,
- Changeable sampling rate
- Open wire detection
- 4 kV ESD protection
- 2500 V_{DC} intra-module isolation
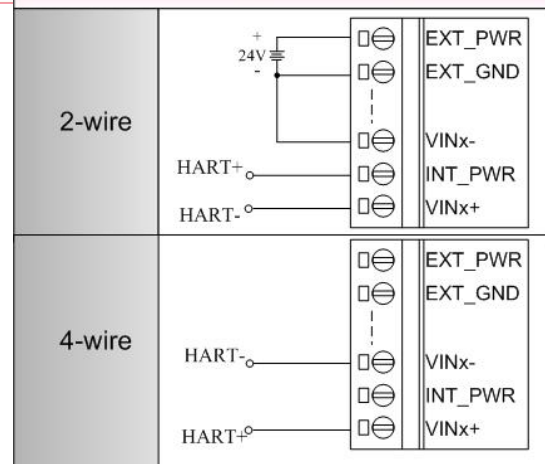- RoHS compliance

Wiring

Wiring for Current input

Pin Assignments

Pin Assignment Name	Terminal No.	Pin Assignment Name
X	19	
	37	BK2
EXT_PWR	18	
	36	EXT_GND
VIN7-	17	
	35	INT_PWR7
VIN7+	16	
	34	EXT_GND
VIN6-	15	
	33	INT_PWR6
VIN6+	14	
	32	EXT_GND
VIN5-	13	
	31	INT_PWR5
VIN5+	12	
	30	EXT_GND
VIN4-	11	
	29	INT_PWR4
VIN4+	10	
	28	EXT_GND
VIN3-	09	
	27	INT_PWR3
VIN3+	08	
	26	EXT_GND
VIN2-	07	
	25	INT_PWR2
VIN2+	06	
	24	EXT_GND
VIN1-	05	
	23	INT_PWR1
VIN1+	04	
	22	EXT_GND
VIN0-	03	
	21	INT_PWR0
VIN0+	02	
BK1	01	
	20	EXT_GND

37-pin male D-Sub Connector

Wiring for HART input

2-wire

4-wire

Hardware Specifications

Hardware	
Input Channels	8 Differential 4-20 mA input channels
HART Wiring	2- or 4-wire transmitters
HART Response Time	1s per single channel
Resolution	16-bit
Zero Drift	+/- 20μV/ °C
Span Drift	+/- 25μV / °C
Common Mode Rejection	86 dB
Normal Mode Rejection	100 dB
Input Impedance	400 Ohms
Common Voltage	-200V to +200V
Open Wire Detection	Yes
4KV ESD Protection	Yes, Contact for each terminal.
Intra-module Isolation, Field to Logic	$2500V_{DC}$
Watchdog	
Dual Watchdog	Yes, Module(1.6 sec) and Communication(Programable)
LED	
LED Display	1 LED as Power Indicator 8 LED as HART Communication Indicator
Power	
Power Consumption	Maximum : 1.8W
Environment	
Operating Temp.	-25 ℃ ~ +75 ℃
Storage Temp.	-30 ℃ ~ +85 ℃
Humidity	5% ~ 95% RH, non-condensing
Mechanism	
Dimensions	30mm x 102mm x 115mm(W x L x H)

Application

Current Measuring, Petrochemical Industry Application, Environment Monitoring, Tunnel Monitoring, Building Monitoring etc.

Related Products

Converters	USB, RS-232, Fiber Optical to RS-485 Converters and Repeaters
Power Supply	24 V_{DC} power supply
Relay Module	External relay modules for I-7000 DO module
Learning Kit	Beginner learning kit
Application Books	Application books designed with our products

Ordering Information

I-87017W	8-channel HART Current Input Module (Gray Cover) (RoHS)