

AR-200/AR-300-T/AR-400

Accelerometer Data Logger Device

Features

- 2/3/4 simultaneous, 16-bit resolution ADC
- IEPE input, and built-in 3 mA excitation current
- Support sampling rate: 200kHz/125kHz/100kHz/50kHz/20kHz/10kHz/5kHz
- Max. Recording time: 30 m (5kHz)
- Flexible trigger modes: Push button trigger, Schedule trigger, analog threshold trigger, digital input trigger and software remote trigger
- Supports 4 to 32 GB micro SDHC type flash

Introduction

The AR-200/AR-300-T/AR-400 series is a range of high-performance dynamic signal acquisition modules that are designed specifically for vibration monitoring and analysis. The maximum simultaneous sampling rate for each channel on the AR-200 is up to 200k-Hz, AR-300-T and AR-400 is up to 125k-Hz respectively. The AR series modules include a built-in 3mA excitation current to power the Integrated Electronics Piezo-Electric (IEPE) accelerometers and a 16-bit A/D converter. The data acquired by the AR series modules are saved on a Micro SD card that can be used for offline vibration analysis. ICP DAS also provides a utility that can be installed on the Host PC that can be easily configured for different triggering modes, as well as changing the sampling rate, and scheduling the sampling time for various applications using the development tools. Consequently, the AR series modules are recommended as your best choice for vibration monitoring and measurement.

Applications

- Big data analysis
- System monitoring
- Trend analysis
- Predictive maintenance

System Specifications

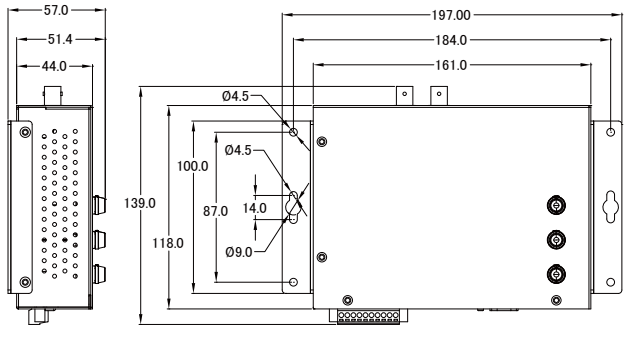
Model	AR-200	AR-300-T	AR-400
LED Indicators			
Status	1 x PWR 1 x DAQ 1 x SD		
Temperature Measurement			
Sensor Type	-	Thermistor	
Channels	-	1	-
Range	-	0 ° C ~ +80 ° C	-
Accuracy	-	±2 ° C	-
Installation	-	Wall-mount	-
Analog Input			
Channels	2 simultaneous sampling	3 simultaneous sampling	4 simultaneous sampling
Type	IEPE		
Range	Voltage: ±10 V Current: 3 mA		
Resolution	16 bit		
Sampling Rate	5, 10, 20, 50, 100, 125, 200 (AR-200 only) (kHz)		
Trigger Mode	Push-button triggering, timed triggering, threshold triggering, digital input triggering, remote triggering by utility software		
Digital Input			
Channels	1, Dry Contact: Source / Wet Contact: Sink or Source		

Model	AR-200	AR-300-T	AR-400
ON Voltage Level	Dry: Close to GND Wet: +10 VDC to +50 VDC		
OFF Voltage Level	Dry: Open Wet: +4 VDC max		
Relay Output			
Channels	Form A x 1		
Type	Power Relay		
Contact Rating	5A@250 VAC (47 ~ 63 Hz) 5A@30 VDC		
Operate Time	10 ms		
Release Time	5 ms		
Electrical Endurance	100,000 times min		
Mechanical Endurance	20,000,000 times min		
Ethernet			
Ports	1 x RJ-45, 10/100Base-T(X)		
Power			
Consumption	4.3 W		
Mechanical			
Dimensions (mm)	197 x 139 x 57 (W x L x H)		
Installation	Wall mounting, rail type		
Environmental			
Operating Temperature	-25 ~ +75 °C		
Storage Temperature	-30 ~ +80°C		
Humidity	10 ~ 90% RH, Non-condensing		

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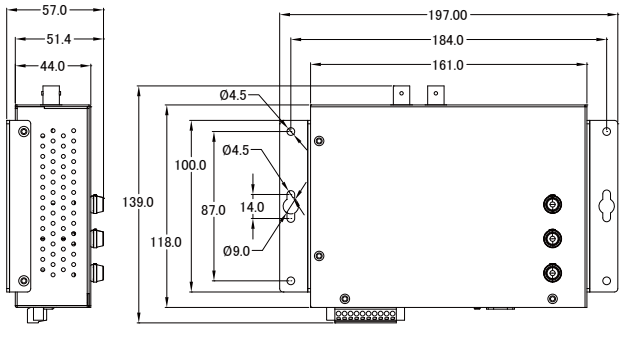
Dimensions (Units: mm)

AR-200



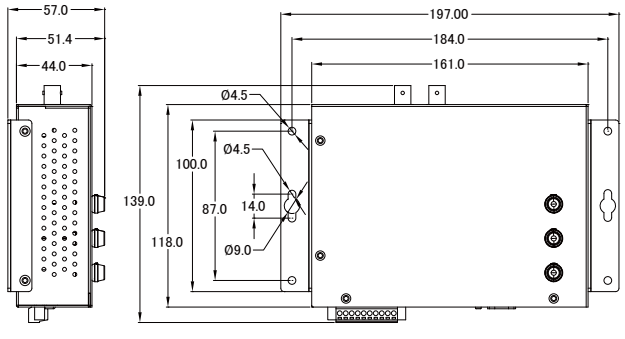
Left View | Front View

AR-300-T



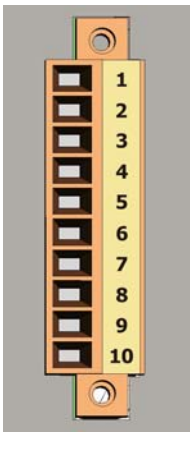
Left View | Front View

AR-400



Left View | Front View

Pin Assignments



PIN No.	Name
1	F.G
2	GND
3	+Vs
4	RL.NO
5	RL.COM
6	D-
7	D+
8	ISO.GND
9	DI
10	DI.COM

Ordering Information

AR-200 CR	Accelerometer Data Logger Device, 2-ch IEPE Input (RoHS)
AR-300-T CR	Accelerometer Data Logger Device, 3-ch IEPE Input, 1-ch Thermistor Input (RoHS)
AR-400 CR	Accelerometer Data Logger Device, 4-ch IEPE Input (RoHS)

Accessories

iSN-701-F15-L030 CR	1-axis accelerometer, Range 80g, Sensitivity 100mV/g, Frequency 15 kHz, includes 300 cm cable (RoHS)
iSN-701-F15-L060 CR	1-axis accelerometer, Range 80g, Sensitivity 100mV/g, Frequency 15 kHz, includes 600 cm cable (RoHS)
iSN-701-MBase01 CR	Magnetic Base for iSN-701 series (RoHS)
CA-TM-P100-L020 CR	NTC Thermistor, Epoxy Resin Cable, 2M (-40°C~+80°C) (RoHS)
CA-TM-P100-L050 CR	NTC Thermistor, Epoxy Resin Cable, 5M (-40°C~+80°C) (RoHS)
CA-TM-M100-L050P CR	NTC Thermistor, Epoxy Resin to Connector Cable, 5M (-40°C~+80°C) (RoHS)
CA-TM-M200-L050P CR	NTC Thermistor, Magnet to Connector Cable, 5M (-40°C~+105°C) (RoHS)

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