










AC Signal Acquisition Module Catalog

Product Name	Product Model	Product Feature	Product Picture
Single-Phase AC High Voltage & High Current Power Monitoring Module	ZH-4011 (AC Voltage) ZH-4012A (AC Current) ZH-4023A (AC Power)	<ul style="list-style-type: none"> • Custom voltage ranges: 100V / 250V / 500V / 700V / 1000V AC • Custom current ranges: 20mA to 300A AC • 20mm current transformer aperture • Measures voltage, current, power, frequency and energy consumption • Accuracy better than Class 0.5 • Wide supply voltage: 9–30VDC or 9–55VDC • Fast update rate: 100ms (customizable to 20ms) • RS485 or Ethernet communication (Modbus RTU/TCP) • Relay alarm output with upper/lower threshold settings 	
16-Channel AC Voltage & Current Acquisition Module	ZH-40161H (16 Voltage Inputs) ZH-40162H (16 Current Inputs) ZH-40163H (Combined Voltage & Current)	<ul style="list-style-type: none"> • Voltage ranges: 10V / 100V / 300V / 450VAC • Current ranges: 5mA / 50mA / 100mA / 500mA / 1A / 5A AC • 16 configurable measurement channels • RS485 or Ethernet (Modbus RTU/TCP) • Class 0.2 accuracy • True RMS measurement • Up to 31st harmonic analysis • Data refresh rate: 300ms 	
8-Channel AC Voltage & Current Acquisition Module	ZH-40081H (Voltage) ZH-40082H (Current) ZH-40083H (Combined)	<ul style="list-style-type: none"> • Voltage input up to 450VAC • Current input up to 5A AC • 8 configurable channels • RS485 or Ethernet communication • Class 0.2 accuracy • True RMS measurement • 31st harmonic monitoring • 300ms update cycle 	

<p>16-Channel AC Current Monitoring Module (Through-Hole Type)</p>	<p>ZH-40162A-1 (RS485) ZH-40162A-3 (Ethernet + RS485)</p>	<ul style="list-style-type: none"> • Through-hole diameter: 7.5mm • Current ranges: 5A / 10A / 20A / 30A / 60A AC • 16 current channels • Modbus RTU/TCP communication • Class 0.2 accuracy • Resolution up to 0.01% FS • Data update: 250ms • Supply voltage: 9–30VDC 	
<p>12/24-Channel AC Current Acquisition Module (Through-Hole)</p>	<p>ZH-40122A (12 Channels) ZH-40242A (24 Channels)</p>	<ul style="list-style-type: none"> • 5mm sensor aperture • Current ranges from 100mA to 25A AC • 12 or 24 current inputs • RS485 Modbus RTU communication • Class 0.2 accuracy • Configurable update rates from 20ms to 1000ms • 9–30VDC power supply 	
<p>High-Speed 24-Channel AC Voltage & Current Acquisition Module</p>	<p>ZH-40241 (Voltage) ZH-40242 (Current) ZH-40243 (Combined)</p>	<ul style="list-style-type: none"> • Up to 24 measurement channels • Voltage inputs up to 500VAC • Current inputs up to 5A AC • RS485 Modbus RTU communication • Class 0.2 accuracy • Adjustable refresh rates from 20ms to 1000ms • Wide supply voltage: 9–30VDC 	
<p>24-Channel External AC Current Monitoring Module</p>	<p>ZH-40242W-1 (RS485) ZH-40242W-3 (Ethernet + RS485)</p>	<ul style="list-style-type: none"> • Frequency response: 20Hz–1000Hz • Supports external current transformers up to 600A AC • 3× overload measurement capability • 20× surge protection without damage • RS485 or RJ45 Ethernet communication • Modbus RTU/TCP protocol • Class 0.2 accuracy • True RMS measurement with 31st harmonic analysis 	

<p>24-Channel Harmonic AC Voltage & Current Monitoring Module</p>	<p>ZH-40243H Series ZH-40241H Series ZH-40242H Series</p>	<ul style="list-style-type: none"> • Available in voltage, current or combined configurations • 12 or 24 configurable channels • RS485 or Ethernet communication • Modbus RTU/TCP protocol • Class 0.2 accuracy • True RMS measurement • Harmonic analysis up to the 31st order 	
<p>3/6-Channel AC Measurement Module</p>	<p>ZH-40031/32/ 33 ZH-40061/62/63</p>	<ul style="list-style-type: none"> • True RMS measurement • Frequency response: 30Hz–1kHz • Voltage ranges up to 500VAC • Current ranges up to 5A AC • Class 0.2 accuracy • Adjustable acquisition speed • RS485 Modbus RTU communication • Optional 9–55VDC or 85–265VAC/DC supply 	
<p>12/24-Channel AC Over-Limit Alarm & Control Module</p>	<p>ZH-40125 ZH-40245 ZH-40126 ZH-40246</p>	<ul style="list-style-type: none"> • 12 or 24 measurement channels • RS485 communication + 24 relay outputs • High limit alarm • Low limit alarm • Window alarm • Zone threshold alarm • Class 0.2 accuracy • 100ms update rate 	
<p>6-Channel Through-Hole AC Current Acquisition Module</p>	<p>ZH-40062A</p>	<ul style="list-style-type: none"> • 6mm aperture current sensor • Current ranges up to 30A AC • 6 isolated current inputs • RS485 Modbus RTU communication • Class 0.2 accuracy • True RMS measurement • Standard 100ms update rate (20ms optional) 	

<p>Single-Phase AC Power & Energy Meter</p>	<p>ZH-4011 ZH-4012A ZH-4023A</p>	<ul style="list-style-type: none"> • Voltage measurement from 75mV to 500V AC • Current measurement from 20mA to 50A AC • Measures voltage, current, power, frequency and energy • Accuracy better than Class 0.5 • RS485 Modbus RTU communication • Relay alarm output • Fast 100ms sampling rate 	
<p>14-Channel AC Voltage & Current Monitoring Module</p>	<p>ZH-40141 (Voltage) ZH-40142 (Current) ZH-40143 (Combined)</p>	<ul style="list-style-type: none"> • 14 configurable channels • Voltage inputs up to 500VAC • Current inputs up to 5A AC • True RMS measurement • Class 0.2 accuracy • RS485 or Ethernet communication • Adjustable refresh rates from 20ms to 1000ms • Measures total system frequency 	
<p>8-Circuit Three-Phase Phase Sequence Monitoring Module</p>	<p>ZH-46081-1 ZH-46082-1 ZH-46081-3 ZH-46082-3</p>	<ul style="list-style-type: none"> • 8 three-phase circuits monitored simultaneously • Voltage input up to 450VAC • Current input up to 5A AC • RS485 or Ethernet communication • Modbus RTU/TCP protocol • Class 0.2 accuracy • Measures phase sequence, frequency, vector parameters and RMS values • Wide frequency response: 20Hz–3kHz 	