CRY2100 Series Noise Sensor

Introduction

The CRY2100 series noise sensor is a compact, industrial-grade noise testing device, compliant with the IEC 61672 standard.

Housed in a robust stainless steel enclosure, the sensor integrates a precision microphone, preamplifier, high-precision ADC, and high-speed DSP processor, providing a dynamic range of 110 dB and a measurement capability as low as 25 dBA.

Equipped with an RS-485 interface, the sensor ensures reliable long-distance communication and supports the Modbus RTU protocol. For industrial automation applications, the CRY2100 series offers three output interface options: 4–20 mA current, 1–5 V voltage, or 2–10 V voltage (select one).

It is widely applied in monitoring noise from machinery, traffic, industrial sites, construction, and other environments.

Typical Applications

- Noise quality inspection of automotive components

- Noise detection in household appliances

- Environmental noise collection and analysis

- Noise monitoring for large equipment

Highlights

- **High Precision and Standard Compliance**

  The CRY2100 series noise sensor complies with the IEC 61672 standard, ensuring accurate and reliable noise measurements.

- **Robust Design**

  Compact and durable stainless steel housing ensures corrosion resistance in harsh industrial environments.

- **Versatile Outputs**

  The CRY2100 series offers three output options—4 –20 mA, 1 –5 V, or 2 –10 V—one of which can be selected based on application needs, ensuring easy integration into industrial automation systems.

- **Flexible Communication Options**

  With an RS-485 interface and Modbus RTU support, the CRY2100 series ensures reliable long-distance communication.

- **Expandable Outdoor Monitoring**

  The CRY2100 series can be paired with the NA41 outdoor protection device to ensure reliable operation in outdoor environments.

Technical Specifications

Specifications	CRY2110	CRY2112	CRY2120
Microphone	CRY331 Free-field 1/2" Microphone 40 mV/Pa (−28 dB re 1 V/Pa)	CRY333 Free-field 1/2" Microphone 50 mV/Pa (−26 dB re 1 V/Pa)	CRY333 Free-field 1/2" Microphone 50 mV/Pa (−26 dB re 1 V/Pa)
Self-Generated Noise	< 19 dBA	< 17 dBA	< 17 dBA
Frequency-Weighting	A, C, Z	A, C, Z	A, C, Z
Time-Weighting	F, S	F, S	F, S
Measurement Range	25-130 dBA	25-130 dBA	25-130 dBA
Frequency Range	20 Hz – 12.5k Hz	10 Hz – 20k Hz	10 Hz – 20k Hz
Measuring Parameter	Lp, Lmax, Lmin, Leq	Lp, Lmax, Lmin, Leq	Lp, 1/3 OCT
Signal Output	RS485; 4-20 mA, 1-5 V, or 2-10 V (select one)	RS485; 4-20 mA, 1-5 V, or 2-10 V (select one)	RS485; 4-20 mA, 1-5 V, or 2-10 V (select one)
Dimensions	φ 24.5 ×111 mm, 115 g	φ 24.5 ×111 mm, 115 g	φ 24.5 ×111 mm, 115 g
Working Conditions	-10 to +50 °C, relative humidity ≤ 90%, no condensation	-10 to +50 °C, relative humidity ≤ 90%, no condensation	-10 to +50 °C, relative humidity ≤ 90%, no condensation

Ordering Information

Name	Model	Description
Noise Sensor	CRY2110	Class 2 Noise Sensor with Lp, Lmax, Lmin, Leq
Noise Sensor	CRY2112	Class 1 Noise Sensor with Lp, Lmax, Lmin, Leq
Noise Sensor	CRY2120	Class 1 Noise Sensor with Lp and 1/3 OCT
Calibrator	CRY563A	Class 1 Sound Calibrator
Communication Cable	BL2101	2-meter Extension Cable (Customizable length available)
Outdoor Protection Device	NA41	IP65 Rated Wind and Rain Shield
Multi-channel Splitter	CRY208	Supports Multiple Sensor Connections
USB to RS485 Adapter	NA1002	Supports Power Supply and Communication