Portable Infrared CO and CO2 Analyzer

YQ-1100

Overview

The YQ-1100 portable infrared CO/CO2 analyzer uses a multiple-reflection optical principle, imported detector and imported diaphragm pump. The brochure describes a compact, stable instrument using gas correlation filtering and a proprietary algorithm to reduce cross-interference. Listed applications include environmental monitoring, disease control, health supervision, occupational health monitoring and research.



Technical specifications

Parameter	Range / value	Resolution	Accuracy / error
CO concentration	0-50ppm or 0-200ppm	0.01ppm	±2%F.S.
CO2 concentration	(0-5000)PPM	1 PPM	±2%F.S.
Atmospheric pressure	(60-130)kPa	0.1kPa	better than 0.5kPa
Repeatability	1.0%		
Zero drift	<1%F.S./H		
Span drift	<1%F.S./H		
Response time	≤60s		
Flow range	0.8L/min		
Data storage capacity	9999 records		
Instrument noise	<60dB(A)		
Unit weight	<6kg		

Highlights

- Selectable instantaneous, 15-minute, 8-hour and 24-hour averages.
- Imported infrared detector.
- Built-in catalytic zero filter for zeroing without zero gas.
- Limit alarm function.

Technical features

• Color touchscreen, Chinese-language measurement menus and user interface.
• Nondispersive infrared (NDIR) technology for very low gas concentrations.
• High-precision sensor based on an imported dual-wavelength infrared detector, with low drift, low power consumption, fast response and short warm-up.
• Multiple-reflection gas cell and imported detector.
• Gas correlation filtering for low cross-interference.
• Imported detector and light source, described as stable and long-lasting.
• Imported sampling pump, described as high-load and long-lasting.
• Stable long-life infrared source and multistage shock isolation to reduce vibration interference.
• Nitrogen zeroing and catalytic zeroing; built-in catalytic filter permits sensor zeroing without zero gas.
• Built-in catalytic zero filter for zeroing without zero gas.
• Simultaneous CO and CO2 measurement with selectable sensor ranges.
• Temperature and humidity measurement with compensation algorithms.
• Low-power standby and built-in lithium battery, more than 8 hours per charge.
• Flexible calculation and storage for data preprocessing.
• Audible and visual alarms with configurable thresholds.
• Selectable PPm and mg/m³ units.
• Low range for low ambient-gas concentrations.
• The features state storage for 100000 measurement records.
• Live data lookup and standard Bluetooth printer for field printing.

Standards listed in the brochure

• HJ 965-2018 - Ambient air: automatic determination of carbon monoxide by nondispersive infrared
• GB 9801-1988 - Air quality: determination of carbon monoxide by nondispersive infrared
• GB/T 18204.2-2014 - Public-place health inspection methods, part 2: chemical pollutants
• GB/T 18204.23-2000 - Determination of carbon monoxide in public-place air
• GBZ/T 300.37-2017 - Determination of toxic substances in workplace air, part 37: carbon monoxide and carbon dioxide
• JJG635-2011 - Infrared gas analyzers for carbon monoxide and carbon dioxide

Standard accessories

• Main unit
• Aluminum case
• Sampling tube
• Tripod
• Charger
• Bluetooth printer

Source and review notes

• The features state 100000 records, whereas the specification table states 9999 records; the discrepancy requires confirmation.
• Specifications and standards have not been independently verified.
• English translation has not received native-speaker technical review.