Zhongji high-speed electronic autocollimator accuracy 1″

Model: MC030-ZJHS200-200HZ

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Product image

Original product title: 中机高速光电自准直仪 精度1″

Product overview

The MC030-ZJHS high-speed electronic autocollimator series combines a precision imaging system with a high-speed photoelectric detector. The source describes sampling rates of 100HZ, 200HZ, 500HZ or higher across the series. Applications include dynamic monitoring of small angles and online inspection of geometric accuracy. The individual model specifications determine the applicable sampling rate.

Applications

Machine tools: guideway straightness, parallelism and perpendicularity, and flatness of large surface plates. Optics: assembly, alignment and prism-angle measurement. Metrology and research: verification and calibration of measuring instruments and tools, precision angle measurement, dynamic monitoring of angular position, and angular or straightness-error measurement of moving products. Marble inspection: straightness, parallelism, perpendicularity and flatness. Encoders: angular-encoder positioning accuracy and repeatability.

Technical specifications

Parameter	Source data
Objective focal length	200mm
Clear aperture	38mm (optional 48mm)
Optical axis height	78mm
Field of view (X, Y)	3000*2200″
Resolution	0.1″, 0.01″, 0.001″, 0.0001″ adjustable (arc sec. arcseconds)
Indication accuracy	±1000″≤ ±1″
Sampling rate	Full field of view: up to 216HZ adjustable; ROI up to 800HZ adjustable
Centre wavelength	625nm
Detector type	High-speed area-array photoelectric detector
Third-party communication	RS232 serial port
Communication	USB3.0
Display method	Software display on a standard PC
Power supply configuration	5V1A
Light source type	Semiconductor LED
Measurement and control software	Yanrun autocollimator measurement and control software
Computer system requirements	WIN7, WIN10, WIN11, 64 bit system
Instrument dimensions (L * W * H)	285*115*110mm
Main unit weight	3.31kg

Use and verification notes

Compiled from the saved official source. Resolution is not accuracy. Preserve the stated range, environment and configuration conditions. Selection and acceptance are subject to the technical specification agreed by both parties.

Related standards for reference

References below distinguish product standards from application methods. They do not constitute product certification or evidence of conformity. Adoption, applicable editions, test conditions and acceptance requirements are subject to the technical agreement confirmed by both parties.

• JB/T 8232-2024 Autocollimators — Product standard reference

Application relationship: Product-standard candidate; confirm model applicability and inspection records. No conformity claim.

Official reference: https://std.samr.gov.cn/hb/search/stdHBDetailed?id=2A77AF2B5400A92BE06397BE0A0AEC68

• GB/T 17421.1-2023 Machine tool testing — No-load or quasi-static geometry — Application method reference

Application relationship: Application, geometrical specification or evaluation reference; not a claim of instrument conformity.

Official reference: https://openstd.samr.gov.cn/bzgk/std/newGbInfo?hcno=78933E2E34BF89D2AA942DF59B0DEB4C

• ISO 230-1:2012 Machine tools — Geometric accuracy under no-load or quasi-static conditions — Application method reference

Application relationship: Application, geometrical specification or evaluation reference; not a claim of instrument conformity.

Official reference: https://www.iso.org/standard/46449.html

• ISO/TR 230-11:2018 Measuring instruments for machine tool geometry tests — Application method reference

Application relationship: Instrument-selection technical report, not a manufacturing or product-certification standard.

Official reference: https://www.iso.org/standard/71882.html

• ISO 14253-1:2017 GPS — Conformity decision rules — Application method reference

Application relationship: Application, geometrical specification or evaluation reference; not a claim of instrument conformity.

Official reference: https://www.iso.org/standard/70137.html

Source: https://www.cnbai.net/product.php?productId=53

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