> LS220H/LS221/LS223 Coating Thickness Gauge

The coating thickness gauge is used for detecting the coating thickness on metal surface. It adopts Hall effect and eddy current principles. It can be used to test the thickness of coatings, varnishes, enamels, etc. on ferromagnetic metal substrates such as steel. It can also be used to measure non-conductive coating thickness such as anodized coatings, ceramics on non-magnetic metal substrates such as copper, aluminum, die-cast zinc, brass,etc.

LS220H Integrated Type

LS221 External Probe

LS223 Wide Range

Application

Metal Substrate	Coating Material	Examples	Measurable or not
Ferromagnetic material: iron, cobalt, nickel, gadolinium	Non-ferromagnetic metal: copper, aluminum, brass, etc.	Galvanized iron, copper-plated iron	✓
	Non-metallic materials: paint, coating, plastic, etc	Iron spray paint, iron spray powder coating	✓
	Ferromagnetic material: iron, cobalt, nickel, gadolinium	Iron nickel plated	✗
Non-ferromagnetic metal: copper, aluminum, zinc, etc	Non-conductive material: anodized, paint	Aluminum anodizing, copper painting	✓
	Conductive material: various types of metals	Copper chrome plating, copper zinc plating	✗

Features

One hand can hold, suitable for smooth and flat surface

External probe, suitable for narrow spaces and complex positions

Wide range, Fe: 0.0-5000μm
NFe: 0.0-3000μm

Core Advantages

1. Dual use for ferrous and non-ferrous metal substrate.
2. Digital probe can get stable data in repeated tests.
3. Responsive, fast measurement in 0.5s.
4. Ruby probe, longer service life
5. Accurate data, ensure to pass the inspection of China Institute of Metrology.
6. Small and portable, single button, simple operation.

Model	LS220H	LS221	LS223
Probe Type	Integrated type	External probe	External probe, wide range
Measuring Range	0.0-2000μm		Fe: 0.0-5000μm / NFe: 0.0-3000μm
Accuracy	⩽±(3% reading+2μm)		⩽±(3% reading+2μm): 0-3000μm ≤±(5% reading+2μm): 3000-5000μm
Resolution	0.1μm: (0μm-99.9μm) 1μm: (100μm-999μm) 0.01mm: (1.00mm-2.00mm)		0.1μm: (0μm-99.9μm) 1μm: (100μm-999μm) 0.01mm: (1.00mm-5.00mm)
Probe Tip	Ruby		
Measuring principle	Fe: Hall Effect / NFe: Eddy Current		
Unit	μm / mil		
Measuring Interval	0.5s		
Minimum Measuring Area	ϕ= 25mm		
Minimum Curvature	Convex: 5mm / Concave: 25mm		
Minimum Substrate Thickness	Fe: 0.2mm / NFe: 0.05mm		