

# PEN TYPE ELECTROMAGNETIC ULTRASONIC AND EDDY CURRENT THICKNESS GAUGE CODE EMU-C300



COUPLING AGENT  
IS NOT REQUIRED

MEASUREMENT THROUGH  
COATING AND RUST LAYER

WORK AT MAXIMUM 800°C

TEMPERATURE  
COMPENSATION

- Measure the thickness of metallic materials with electromagnetic ultrasonic technology, no need for ultrasonic coupling agent
- Does not require a smooth workpiece surface, rough surfaces do not need to be polished, enabling non-contact measurement
- Measure the thickness of non-metallic coatings on low-carbon steel surfaces with eddy current technology
- The high-temperature probe can measure the thickness of high-temperature workpieces
- Temperature compensation: set the current temperature of the workpiece to improve measurement accuracy
- Compact and portable, easy to operate
- Automatic power off



A scan

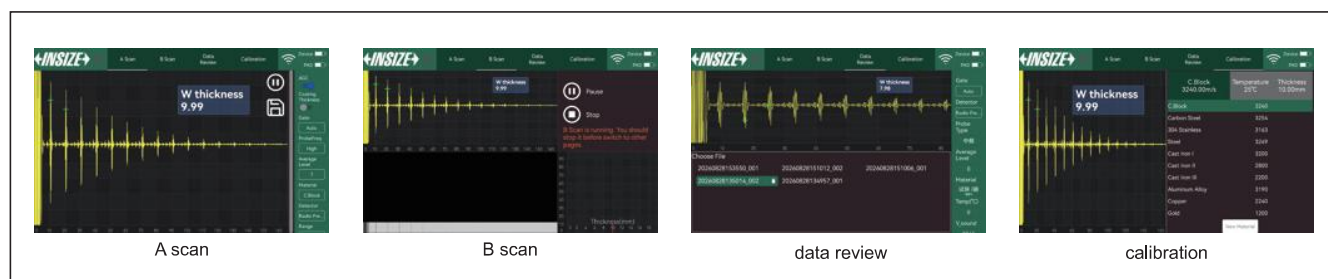


probe  
EMU-C300-P01  
(included)

## SPECIFICATION

|                                     |                                                                                                                                     |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Detectable material                 | carbon steel, cast steel, alloy steel, stainless steel, copper, aluminum, titanium, etc.                                            |
| Range                               | refer to the specification of probes                                                                                                |
| Accuracy*                           | $\pm 0.05\text{mm}$ ( $H \leq 10\text{mm}$ )<br>$\pm (0.01 + H/200)\text{mm}$ ( $H > 10\text{mm}$ ), H is measuring thickness in mm |
| Resolution                          | 0.01mm                                                                                                                              |
| Material velocity                   | 1000~9999m/s                                                                                                                        |
| Probe frequency                     | 4MHz                                                                                                                                |
| Gain                                | automatic and manual gain (1dB~100dB)                                                                                               |
| Maximum lifting distance            | 4mm                                                                                                                                 |
| Non-perpendicularity                | $\pm 25^\circ$                                                                                                                      |
| Minimum diameter of workpiece       | 8mm                                                                                                                                 |
| Coating thickness measurement range | 0~6.0mm (non metallic coating on low-carbon steel)                                                                                  |
| Data communication                  | WIFI                                                                                                                                |
| Display                             | 1.5 inch color screen                                                                                                               |
| Power supply                        | 3.6V 3300mA/h rechargeable Li-ion battery, working time $\geq 8\text{h}$                                                            |
| Working temperature                 | $-20^\circ\text{C} \sim 50^\circ\text{C}$                                                                                           |
| Storage temperature                 | $0^\circ\text{C} \sim 40^\circ\text{C}$                                                                                             |
| Dimensions (L×W×H)                  | 180×50×35mm                                                                                                                         |
| Net weight                          | 260g                                                                                                                                |

\* On C45 carbon steel



A scan

B scan

data review

calibration

connect to the tablet (optional) via WIFI,  
A-scan, B-scan, data storage and review, calibration, export test reports

### SPECIFICATION OF PROBES

| Code                    | Magnet           | Measuring range | Diameter (Ød) | Working temperature | Applications                                                                                           |
|-------------------------|------------------|-----------------|---------------|---------------------|--------------------------------------------------------------------------------------------------------|
| EMU-C300-P01 (included) | permanent magnet | 1.0~200mm       | Ø23mm         | -20°C~150°C         | general use, mainly used for fine-grained materials, such as mild steel, aluminum                      |
| EMU-C300-P02 (optional) | permanent magnet | 1.0~200mm       | Ø34mm         | -20°C~800°C         | high temperature environment, mainly used for ferromagnetic fine-crystal materials, such as mild steel |
| EMU-C300-P03 (optional) | permanent magnet | 1.0~200mm       | Ø12mm         | -20°C~150°C         | general use, suitable for narrow spaces                                                                |

### STANDARD DELIVERY

|                                          |       |
|------------------------------------------|-------|
| Main unit                                | 1 pc  |
| Probe EMU-C300-P01                       | 1 pc  |
| Carbon steel calibration block (10mm)    | 1 pc  |
| Stainless steel calibration block (10mm) | 1 pc  |
| Lifting shims (1mm/4mm)                  | 2 pcs |
| USB cable                                | 1 pc  |

### OPTIONAL ACCESSORY

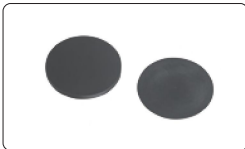
|                                      |                 |
|--------------------------------------|-----------------|
| High-temperature probe               | EMU-C300-P02    |
| High-temperature probe sweep support | EMU-C300-P02-S  |
| Small-bore tube probe                | EMU-C300-P03    |
| Tablet (software included)           | EMU-C300-TABLET |



carbon steel calibration block (included)



stainless steel calibration block (included)



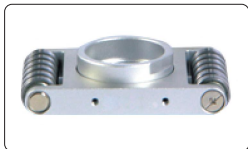
lifting shims (included)



tablet (optional)



high-temperature probe (optional)



high-temperature probe sweep support (optional)



small-bore tube probe (optional)