

MEE 14
Order Code -22235575.4.14
Ultrasonic Flaw Detector



## **Specifications**

- · Display:
  - Type: 7" High Brightness LCD
  - Brightness: 1000 nits, adjustable from 0% to 100%
  - Update Rate: 60 Hz
- Measurement Range:
  - Range: 2 to 15,000 mm, in 0.1 mm steps
  - Velocity: 250 to 16,000 m/s, in 1 m/s steps
    Zero Offset: 0 to 1000 μs, in 0.01 μs steps
  - Display Delay: -60 to 15,000 mm, in 0.1 mm steps
- Units:
  - Millimeters, Inches, μs, %
- Rectification:
  - Full wave, Positive half-wave, Negative half-wave
- Horizontal Grid:
  - 100% or 110%
- Reject:
  - 0% to 99% FSH with visual indication
- Skip Distance:
  - Visual indications based on thickness and angle
- A-Scan:
  - Active freeze, Freeze
- Real-Time Clock:
  - Date and time for saved records
- Data Acquisition:
  - Digitizing Frequency: 100 MHzData Storage: 32 GB SD card
  - Single A-Scan Storage: > 6 million A-Scans
  - Report Generation: On-board PDF report with custom logo, PNG A-Scan

Note: Specifications are subject to change, Photos shown above are Indicative, Actual Product can Vary.

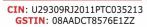


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- Continuous A-Scan Recording: Onboard file generation, > 200 hours
- Calibration Sets: 10,000 cal-sets
- Data Export: SD card, USB flash drive, PC connection

### Receiver:

- Dynamic Range: 0 to 120 dB, in 0.1 dB steps • Bandwidth: 0.5 to 20 MHz wide band amplifier
- Digital Filter Settings: 0 to 20 MHz, in 0.1 MHz steps
- Enhance Mode: Off, Low, Mid, High

# **System Linearity:**

 Horizontal: ±1% FSW • Vertical: ±2% FSH

### Gates:

- Measurement Gates: 3 gates + 1 interface gate\*
- Measurement Mode: Max peak, Flank, j-Flank, First peak, Zero crossing
- Start: 0 to 20,000 mm, in 0.1 mm steps
- Width: 0 to 20,000 mm, in 0.1 mm steps
- Threshold: 0% to 100%, in 0.1% steps
- ToF Resolution: Selectable 1/0.1/0.01 mm

#### Alarms:

- Positive and Negative Threshold, Wall Thickness
- Alarm Indication: Audio and visual indicators with vibration
- Gate Width Zoom: For gates 1, 2, 3
- Amplitude Measurement: 0% to 110% FSH, with 0.1% resolution
- Measurement Rate: Equivalent to PRF

## **Automated Calibration:**

- · Velocity, Zero Offset
- Straight Beam (First back wall or Echo-to-Echo)
- Angle Beam (Sound path or Depth)

## **Pulser Types:**

- Square wave
- Spike
- PRF: 10 to 2000 Hz, in 1 Hz steps Voltage: 50V-450V, in 25V steps
- Pulse Width: 0.5-20 MHz, in 0.1 MHz steps
- Pulser Damping: 500, 400 Ω
- Impulse Mode: 0 to 7

# **Test Modes:**

- Pulse Echo
- Dual
- Through Transmission

#### **Instrument**

# • Inputs/Outputs:

• USB Ports: USB C (charging, storage access), USB A (flash drive)

Transducer Connections: LEMO 00

SD Card: 32 GB

### • Environmental Ratings:

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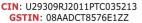


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- IP Rating: IP 65
- Operating Temperature: -10°C to 55°C
- Storage Temperature: -20°C to 60°C
- Battery Recharge Temperature: 0°C to 40°C

#### **Measurements:**

- Measurement Display Locations: 12 user-defined blocks
- Trigonometric: Beam path, Flaw depth, Surface distance, Min/Max depth, Gate2-Gate1
- Threshold: Echo height in %, Attenuation in dB, Min/Max threshold
- Trigger: Initial pulse IF gate
- Job Thickness: 0.1 to 999.9 mm, in 0.1 mm steps
- Refracted Angle: 0° to 90°, in 0.1° steps

## **DAC (Distance Amplitude Correction):**

- · Point-point and parabolic curve
- 2 additional curves with ±20 dB offset
- Up to 15-point curve

# TCG (Time Corrected Gain):

15 points, 18 dB/10 ns slope

### **Curved Surface Correction:**

- · Tube, Bar
- AWS D1.1/D1.5

### **Construction:**

Compact, Rugged Moulded ABS, Soft Touch

## Operation:

- 5 Button Navigation Keypad + 1 Gain Key
- Ambidextrous Operation

### **Battery:**

- Type: Single rechargeable inbuilt lithium-ion 7.4V 40W
- Life: Up to 8 hrs
- Power Requirements: USB C fast charger, 100-240 VAC, 50-60 Hz, 1.5 A

# Warranty:

1-year Standard

#### Accessories

- USB C 30W Fast Charger
- 32 GB SD Card
- Instrument Carry Case
- IIW System Evaluation Block: Nickel Plated
- IIW Miniature Angle Beam Calibration Block: Nickel Plated
- Connector Cable: Mini Lemo to Mini Lemo, 2 meters
- Miniature Angle Probe: 9 x 8 mm, 60°/4 MHz
- Miniature Normal Probe: 4 MHz/10 mm with replaceable protective membrane
- **Extra Battery:** Yes

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