



**Technical  
Specifications**

# AMIGO2

## The ACFM Benchmark

With over three decades of proven performance, ACFM® technology has set the industry standard for non-intrusive, in-service weld assessment. Amigo™ 2 pushes this legacy further, offering unmatched ease of use, versatility, and precise crack sizing, making it the go-to solution for today's inspection challenges.

### BENEFITS

- Inspects through thick coatings, reducing costs of coating removal and re-application
- Performs on rough surfaces and complex geometries
- Delivers unmatched productivity with large coverage pencil and Sensu2 array probes
- Enables efficient crack depth and length sizing with encoder-based or 3BZ technology
- Packaged in a state-of-the-art portable and connected instrument
- Offers streamlined and structured inspection planning and reporting

### APPLICATIONS

- Generic structural weld inspections
- Fillet weld, lap joints and butt weld inspections with single-pass array probes
- High temperature inspections up to 500°C (932°F)
- Thread inspection
- Underwater inspections down to 50m (165ft)
- Galvanized steel inspection

**In response to growing demands for faster inspections, superior data quality, and enhanced portability, Amigo2 rises to the challenge. Engineered for speed, reliability, and versatility, it sets the standard in Alternating Current Field Measurement (ACFM) technology, delivering practicality and efficiency across a wide range of applications and environments.**



## INSPECTION SPEED MEETS SIGNAL CLARITY

Amigo2 is engineered with a highly advanced signal acquisition and processing system that delivers fast, high-quality data inputs. This ensures smoother, higher-resolution butterfly signals, enhancing the detection of small defects and enabling inspection through thicker coatings. With its exceptional data quality and performance, Amigo2 sets the standard for ACFM technology

## THE BEST OF ACFM IN A PORTABLE INSTRUMENT

The Amigo2 instrument is sealed and designed for IP65. Its magnesium alloy casing is tough, water and dust resistant, and cools without any external air exchange. The adjustable stand, the top handle, and four corner anchor points make it practical for onsite inspections. The premium-quality 26.4cm (10.4in) LED display is optically bonded, non-reflective, comes with 3mm (0.12in) strengthened glass, and is designed to be easily operated with gloved hands in any lighting conditions. The system also comes with two hot-swappable batteries for extended battery operation.



Figure 2: Amigo2 for ACFM weld inspection.



Figure 1: Annotated breakdown of the Amigo2.



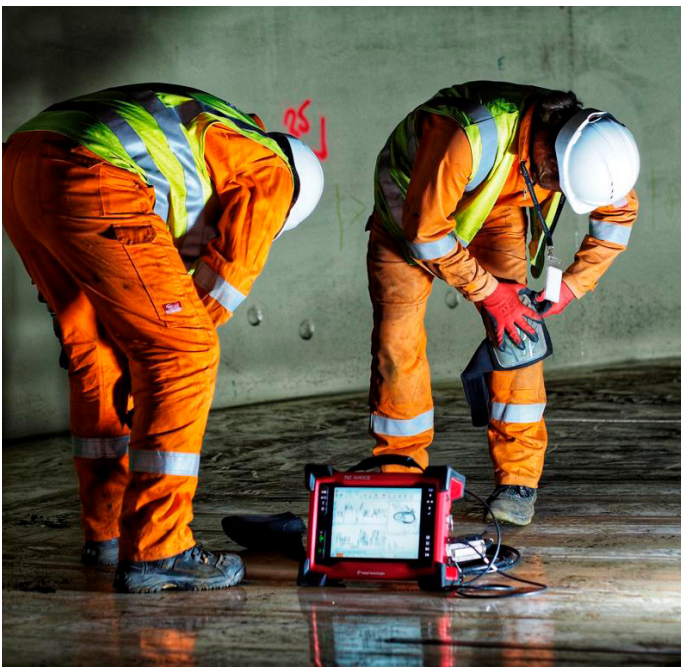


Figure 3: Amigo2 for internal tank weld inspection.

## WIRED FOR ALL OCCASIONS

Amigo2 is equipped with connectors that support the use of Sensu2 single-element and array probes, underwater probes, encoders, and 3BZ crack sizing technology. It also allows for the connection and use of legacy Amigo and PACE probes, simply by importing the relevant QPC files. Furthermore, Amigo2 supports simultaneous connection of multiple probes, allowing you to switch between them quickly through the software.



Figure 4: Sensu 2 ACFM probe with the Amigo 2 for rail tank car weld inspection.

## THE ESSENCE OF ACFM: ASSIST

Experienced ACFM operators will feel immediately at home—with familiar Bx/Bz traces and butterfly signal taking center stage on the Amigo2 screen—while the multi-touch interface offers a highly intuitive access to all software functions in ribbon form.

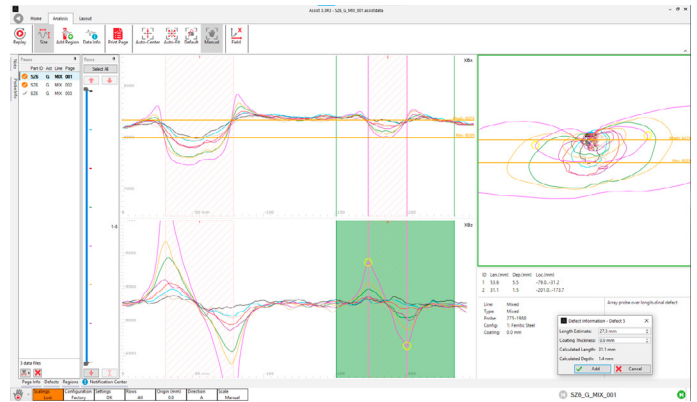


Figure 5: Assist software interface

## A CONNECTED ENVIRONMENT

Providing new levels of efficiency and collaboration, Amigo2 users can benefit from the connectivity tools. Transfer and share data with colleagues through OneDrive. Share your screen with remote analysts through Zoom. Add pictures and notes for indications and scans through the Eddyfi mobile application. These constantly evolving tools are meant to ensure that users are on top of their game.

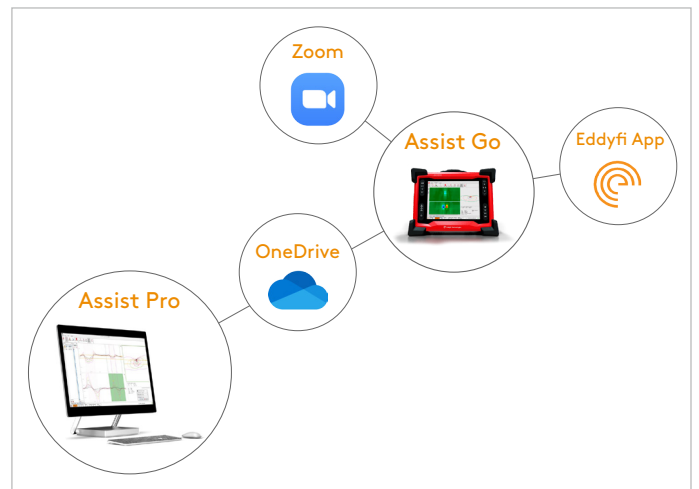


Figure 6: Amigo2 ecosystem.

## GET SERVICE AT ALL EDDYFI TECHNOLOGIES CENTERS AROUND THE GLOBE

Maintenance is key in keeping your valuable assets in peak working condition. Access to our worldwide support centers gives you fast turnarounds, which minimizes shipping and lost opportunity costs by keeping your Amigo2 in the field longer.

# AMIGO MODEL COMPARISONS

AMIGO (DISCONTINUED MODEL)	AMIGO2	AMIGO2 SE
Limited acquisition speed (single analog input)	Faster acquisition speed (2-8 digital inputs)	Faster acquisition speed (2 digital inputs)
Legacy connector only	Legacy AMIGO, SENSU1 (PACE) and SENSU2 probe connectors	Legacy AMIGO, SENSU1 (PACE) and SENSU2 probe connectors
Optional slow scanning array	Built-in high speed array	Single element
Probe configurations stored on PC as a separate file	Probe configurations stored directly on probe (SENSU1 or SENSU2)	Probe configurations stored directly on probe (Single element probes only)
Single frequency-upgradable to dual	Dual/multiple frequency	Dual/multiple frequency
Legacy Assist software on separate PC	Integrated (touchscreen) or RDAU (Laptop). New intuitive Assist software on continuous evolution	Integrated (touchscreen) or RDAU (Laptop). New intuitive Assist software on continuous evolution
1 × Encoder Input (via probe)	2 × Encoder Inputs-via probe or external IO Connector	2 × Encoder inputs-via probe or external IO Connector

## SPECIFICATIONS

INSTRUMENT		
Dimensions (W x H x D)	355 x 288 x 127 mm (14.0 x 11.3 x 5.0 in)	
Weight (with 1 x battery)	6.6 kg (14.5 lb)	
Volume	13 L (791 in <sup>3</sup> )	
Power Requirements	100-240 VAC ± 10% 50-60 Hz	
Power Supply	Direct VAC (100 W) or onboard batteries	
Batteries	Type	Li-ion, rechargeable, DOT compliant
	Typical Life	6-8 hours (with both batteries in the instrument)
Video Output	HDMI	
Encoders	2 axes, quadrature	
Connectivity	Gigabit Ethernet, Wi-Fi, Dual Mode Bluetooth® 2.1, 2.1+EDR. 3.0, 3.0+HS, 4.0 (BLE), USB 2.0 (x3)	
Display	26.4 cm (10.4 in)	
	Non-reflective (AR coating)	
	Anti-fingerprint (oleophobic coating)	
	3 mm (1/8 in), chemically strengthened glass cover	
Storage	Optically bonded LCD and touchscreen	
	Passive backlight enhancement	
Storage	SSD, 100 GB	
Cooling	Sealed and fanless	
Probe Inputs	SENSU, Sensu2, AMIGO	
Supported Probe Cable Length	Maximum 50 meters (164.04 ft)	
Frequency	5 kHz and 50 kHz	
Data Resolution	16 bits	

ENVIRONMENTAL	
IP Rating	Designed for IP65
Operating Temperature	0-40°C (32-104°F)
Operating Humidity	95%, non-condensing
Storage Temperature	-20-60°C (-4-140°F)
Storage Humidity	95%, non-condensing
Compliance	ASME, EN 61010-1, CE, WEEE, FCC Part 15B, ICES-003, AS/NZS CISPR 22, RoHS



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