H SERIES

Wave Probe System - H40-MKII

H40-MKII - Wave Probe System

The H40-MKII is suitable for use in:

2D flume: For this configuration, the wave probes are supplied with a mounting block allowing the calibration stem, that is fixed to the wave probe head, to be attached to any vertical surface.

3D wave basin: For basins, The H40-MKII-7 Twin Wire Wave Probe Tripod is used for mounting the 600 to 1200 mm wave probes. For shallow water up to 1m depth, a smaller stand to fit 300 mm wave probes is available.

Description - H40-MKII

The H40-MKII Wave Probe System is a modular data acquisition solution designed to monitor wave activity with high precision.

As standard, it supports up to eight wave probes. However, multiple H40-MKII units can be linked together to accommodate up to 16 probes, enabling users to either enhance measurement precision or extend the monitoring range.

Each H40-MKII case houses the necessary signal conditioning boards and probe connection interfaces. The rear panel includes a power supply port and network connections, allowing direct connection to a computer.

System configuration is managed via a built-in web interface. During operation, the acquired data is transmitted over the network for collection by compatible software (not supplied by Armfield).

The wave probes consist of two parallel stainless steel rods with a plastic head and foot. Up to four different probe lengths can be used, offering flexibility for various testing environments. The head is attached to a calibration stem, which can be mounted to any vertical surface using the supplied mounting block. Additionally, Armfield offers optional stands and tripods for alternative mounting setups.

Each probe functions by measuring the electrical current flowing between the immersed stainless steel rods. This current is converted into an output voltage that is directly proportional to the depth of immersion. To prevent polarization effects at the probe, a high-frequency square wave is used for energising.

To avoid interference when probes are placed close together, adjacent probes operate at different frequencies. Each channel includes circuitry that compensates for the resistance of the connecting cable, ensuring a linear and accurate output.



Two H40-MKII's can be chained together to enable a 16 probe system

Overall dimensions

Length 250mm / **Width** 100mm / **Height** 40mm

Packed and crated shipping specifications		
H40-MKII	0.1m^3	3kg

UK office - email: sales@armfield.co.uk tel: +44 (0) 1425 478781 (for ROW)
USA office - email: info@armfield.inc tel: +1 (609) 208-2800 (USA only)

Features / benefits

- Extremely linear output
- No hysterisis
- Reliable, proven design, easily calibrated
- Two H40-MKII's can be chained together to enable a 16 probe system
- Suppled with 8 channels as standard
- Data can be logged directly into a computer via the network link

Technical specification (Wave probe case)

Case configuration:	8 channels (wave probes)
Output signals:	EtherNET digital output comms cable network to data acquisition PC 0-5 V via 16-wayIDC connector
Excitation frequency:	3 kHz to 11 kHz
Filter band width:	-3 dB at 2 0Hz
Supply voltage:	220 or 110 V ±10% 40-60 Hz
Trigger function:	+5 V input signal trigger

Technical specification (Wave probe)

Active working range:	300, 600, 900, 1200mm
Probe diameter (300mm):	1.6mm
Probe diameter (600, 900,1200mm):	6.0mm

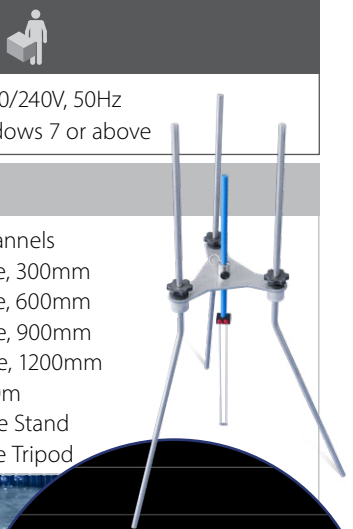
Requirements

1Ph

Electrical supply: 110/120V, 60Hz or 220/240V, 50Hz

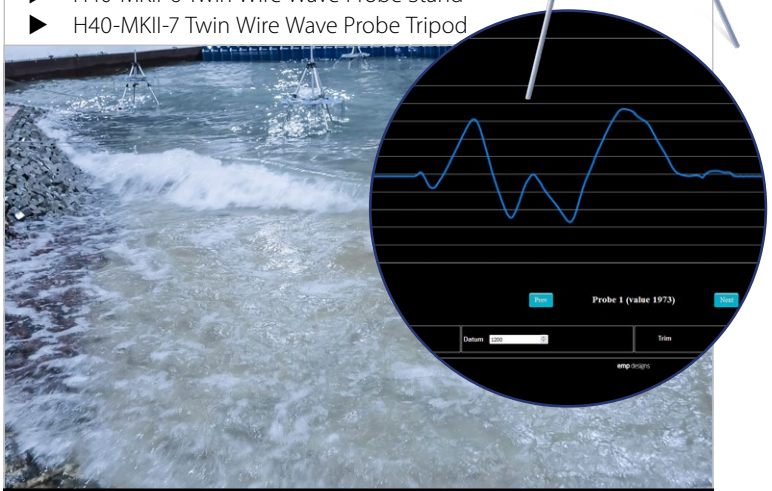
- PC with a USB port, running Windows 7 or above

Scale



Ordering codes

- H40-MKII Wave Probe Case, 8 Channels
- H40-MKII-1 Twin Wire Wave Probe, 300mm
- H40-MKII-2 Twin Wire Wave Probe, 600mm
- H40-MKII-3 Twin Wire Wave Probe, 900mm
- H40-MKII-4 Twin Wire Wave Probe, 1200mm
- H40-MKII-5 Wave Probe Cable, 30m
- H40-MKII-6 Twin Wire Wave Probe Stand
- H40-MKII-7 Twin Wire Wave Probe Tripod



Issue: 4
URL: http://www.armfield.co.uk/h1

Applications: ChE ME CE IP

We reserve the right to amend these specifications without prior notice. E&OE © 2020 Armfield Ltd. All Rights Reserved