

# Technical Specifications of GUL Wavemaker® G4 Mini

The Wavemaker® G4 Mini packs the sampling power of the Wavemaker® G4 into a smaller and lighter package. Available in multiple configurations, the Wavemaker® G4 Mini can be tailored to match your applications.

## TECHNICAL SPECIFICATION SUMMARY (Subject to change)



<b>Application Areas</b>		
Designed for	Bare (or painted) pipe using standard rings	All pipe and tube applications
<b>Physical Characteristics</b>		
Dimensions (without removable handles)	Approx. 22x30x13cm	
Weight (approx.)	4.2 kg	4.4 kg
<b>Transmitter</b>		
Transmitter Frequency Range	10 to 40 kHz	7 to 150kHz
Maximum output drive voltage	200Vpp	400Vpp
Maximum rep-rate	5 Hz	20 Hz
<b>Receiver</b>		
Convertor sampling frequency	200 kHz	100 to 500kHz
Receiving gain range	10 to 60 dB	10 to 90 dB
Analog Band Pass Filter Range (Variable)	10 to 90kHz	7 to 150kHz
Maximum sample range	30m	400m
Maximum number of averages	16	256
<b>Power Ratings</b>		
Battery type (Removable)	6.6 Ah, 14.8V Li-Ion	
Typical battery life	At least 150 standard tests	
External power supply to charge instrument	18-20 VDC (60W min)	
<b>Interfaces</b>		
Number of transducer channels	<b>16</b>	
Screen	7inch colour LCD touchscreen (800x480 pixels)	
Controlling Software	Wavemaker® WavePro4™	
Supported Operating Systems	Windows XP to Windows 7	
USB Link	USB 2.0 (appears as a disk drive on the PC)	
LAN (10/100 Base-T Ethernet)	-	With optional cable
Transducer 'Ring' Identification	Detects transducer ring type, size and serial number	
Transducer 'Ring' Capacitance	Measures transducer capacitance (0.1 nF precision)	
GPS	20 channel SiRF Star IV GPS module	
Operator Identification	Reads and updates operator 'iButton' ID keys	
Diagnostic Interface	Built-in diagnostic connection to verify instrument and cable performance	

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## COMPATIBILITY OF WAVEMAKER G4 MINI INSTRUMENTS AND VARIOUS TYPES OF RINGS

	Wavemaker® G4 Mini - Base	Wavemaker® G4 Mini - Full
<b>Processing Options</b>		
Unrolled pipe (EFC)	If licensed	If licensed
Absolute Calibration	If licensed	If licensed
<b>Ring and Module Types</b>		
'Standard' inflatable (R2B) and solid (R2F)	Yes	Yes
Compact Rings	Yes	Yes
Claw (R2G) small diameter rings	Requires PLANT package	Yes
HD solid rings or HD modules in inflatables	Requires PLANT package	Yes
Lowest frequency setting in variable	Requires BURIED package	Yes
HT Rings	Yes	Yes
gPIMS Sensors (R2P)	Requires GPIMS package	Yes
Longitudinal Mode (with 4 rows)	Requires L02 package	Yes
<b>Special Configurations</b>		
Joining Two Rings	Requires BIGPIPE package + convertors	Requires convertors
Joining Three or Four Rings	No	No
Pitch-Catch collections	Requires BURIED package + convertors	Requires convertors (rings behave as Std. not EFC)
Able to read pressure sensor in HD / HT rings	No	Yes

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## WAVEMAKER G4 MINI PART NUMBER LIST

Base Part Numbers	
G4M-FULL	A fully loaded G4mini (configured to support all of the packages listed below). Supplied with a pair of 2m transducer cables, a battery, USB umbilical, and charger.
G4M-BASE	A base level G4mini suitable for collection of data on bare (or painted) pipe using only standard and compact rings. Extra packages (listed below) can be added to extend the base system.
Packages	
<i>These can be added to the G4M-BASE to extend functionality. They are all included in the G4M-FULL.</i>	
G4M-BURIED	400Vpp output, lower frequency collection, Pitch-catch configurations (4 rows).
G4M-PLANT	400Vpp output, higher frequency collection, support for HD, HT, R2G (claws) rings.
G4M-GPIMS	Supports all required collections for a gPIMS sensor (including interface for ATEX rings and untrained operators).
G4M-BIGPIPE	Supports joining rings together for large pipes.
G4M-SPEED	Increase the maximum possible rep-rate and sample length.
G4M-LONGITUDINAL	Supports required functionality for using the longitudinal mode.
G4M-UPGRADES	Access to new versions of WavePro4 as they are released.
Accessories	
G4M-ZLAN	Adaptor box to allow the G4mini to be connected to a 10/100 Base-T Ethernet network. Comes with a 15m cable.
G4M-PELI	'Peli' brand rugged shipping case (with internal foam) to house the G4 Mini.
CB03-SS	3m transducer cable (straight end to straight end).
CB03-SR	3m transducer cable (straight end to right angle end).
CB12-SS	12m transducer cable (straight end to straight end).
G4M-CHARGER	Spare charger for the G4 Mini.
G4M-BATTERY	Spare battery for the G4 Mini.
G4M-EXTCHGR	External charger for the battery used in the G4 Mini.
G4M-EXTGPS	Spare external GPS to use with the G4 Mini.
G4M-USB2M	Spare USB umbilical (2m long).
G4M-USB5M	Spare USB umbilical (5m long).
Software Options	
EFC	Allows for the unrolled pipe (C-Scan) display for data collected from an instrument
CAL	Allows for the absolute calibration of reflection amplitudes from an instrument