

# Fact Sheet **MESSENGER M61**

## APPLICATION

Any equipment with digital output contacts can now be monitored from remote locations when connected to the Messenger product. Messenger monitors up to 12 normally open or normally closed contacts and reports alarm and reset conditions to a remote PC and/or mobile phones by using the GSM (mobile phone) network. Messenger is self-contained and requires no external power source.



## OPERATION

Messenger is completely self-contained with a built in GSM modem (mobile phone) and 10 year life lithium battery. The battery is sized in order to allow a Weekly test call to be made which confirms operational readiness. Messenger is triggered by the operation or reset of the equipments alarm contacts being monitored. Messenger then initiates a data call to the PC based Messenger Host Terminal PC. The telephone number of the Host Terminal is pre-programmed into the Messenger and can be edited over air at a later stage without the need for a site visit.

Because alarm and reset messages from Messenger units are formatted and sent using data technology over the GSM network, installation is simple and provides excellent communications coverage. The PC based Messenger Host Station can be used as a site editing suite.

Alarm and reset messages forwarded to Host Terminal/mobile phone(s) include the following information:

- Type, serial number and details of equipment being monitored
- Date/Time alarm event occurred
- Type of alarm (alarm/reset)

The Messenger Host Terminal application alerts users to alarms and can display the status of related Messenger units, alarm and contact histories. Field staff can be notified automatically by an SMS text message or e-mail from the Messenger Host in the event of alarm conditions.

During contact with the Host Terminal the Messenger unit recalibrates it's real time clock and updates any operational settings that users may have edited. If for any reason an alarm call fails, Messenger has a retry algorithm to ensure message delivery.

## PRODUCT FUNCTION QUICK REFERENCE GUIDE

	<b>M61 Messenger</b>	M62 Messenger	Text Messenger	PSTN Messenger
Digital inputs x 8		✓	✓	
Digital inputs x 12	✓			✓
Meter Pulse counting inputs x 8		✓	✓	
Mains powered		✓	✓	
Battery Back up (lead acid)		✓	✓	
Self powered (Lithium)	✓			✓
Reports to host software ( <i>See spec sheet</i> )	✓	✓		✓
Sends SMS alarms directly to mobiles			✓	
GPS receiver				
Operates with data enabled SIM card	✓	✓	✓	
Operates with 'Pay as you Go' SIM card			✓	
Operates with fixed landline				✓
Additional expansion ports		✓	✓	
Automatic mains & battery monitoring		✓	✓	

## TECHNICAL SPECIFICATION

<b>COMMUNICATIONS</b>	
Standard Modem	GSM 900/1800 (dual band) integrated modem. Requires a data enabled SIM card. Optional 900/1900 dual band.
Antenna	On board stub antenna. Can be replaced by external antenna and lead.
<b>INPUTS</b>	
Inputs can be wired as either Type	12 x opto isolated inputs or 24 x direct connections. Normally Open / Closed is software selectable. Flutter suppression on individual inputs is software selectable if required.
Minimum time required to detect input operation (i.e. debounce)	500 ms.
Opto isolated inputs	5kV isolation across inputs, 24V nominal (80V-breakdown voltage between live and common).
Directly connected inputs	Non-isolated, switched to zero volts.
Input terminals	High Density Connector. Maximum conductor size 24 awg
On board Event Logs	100 (expandable if required).
On board Comms Logs	100 (expandable if required).
<b>POWER SUPPLY</b>	
Battery specification	36Ah Double 'D' Lithium (Pulses Plus <sup>tm</sup> ). 84w x 60h x 36d.
current consumption	Quiescent: 10 micro Amps (nominal). TX/RX: 200mA to 600mA at 3.6V.
<b>ENCLOSURE</b>	
Rating	IP66 with Goretex <sup>TM</sup> vent.
Material	Non Flammable Polycarbonate, colour RAL 7035.
Dimensions	130mm (h) x 130mm (w) x 75mm (d).
Mounting	4 x M4 (5mm diameter) wall mounting holes. Holes located outside watertight seal. Holes at 115mm vertical and horizontal centres.
Standard Cable entry	1 x 20mm hole fitted with IP68 cable entry gland. Gland accepts cable diameters in range 4mm to 7mm.
<b>GENERAL</b>	
Approx. Weight (inc. modem and stub antenna)	0.7Kg.
Operational temp range	-20°C to +55°C (GSM Modem). -45°C to +60°C (Messenger unit).
Retry Algorithm (in case of failed calls/busy Host)	10 retries at approximately 1 minute intervals, followed by a 24 hour wait and then starts call attempts again.
Health Check test call frequency	1 to 99 days and option to disable.
<b>APPROVALS</b>	
Independently approved	EN61010-1:2001, EN60068-2-1, EN60068-2-2, EN60068-2-3, EN61326:1997.

## FURTHER INFORMATION

New Hampshire Digital Services, Floor 4, East Mill, Bridgefoot, Belper, Derbyshire DE56 2UA  
Tel: +44(0)844 8009242 [www.nhds.co.uk](http://www.nhds.co.uk) e-mail: [technical@nhds.co.uk](mailto:technical@nhds.co.uk)