

CalMaster™

In-situ Calibration Verification



- World's first in-situ flowmeter calibration check
- No access to flowmeter sensor required
- No disruption to flow
- Helpline, customer support via Internet
- Condition monitoring
- Portable

instrumentation

understanding measurement analysis control integration **optimization**

ABB Automation





Ease of operation

The ease of operation is a key benefit in today's cost-conscious environment.

In the unlikely event of a system not passing verification, licensed users need only contact the CalMaster Helpline for telephone assistance. Full diagnostic advice and technical assistance is available by E-Mail or conventional mail.

Condition monitoring

An added benefit of CalMaster is that it can be used as a diagnostic and condition monitoring tool. It automatically stores all the measured values and calibration information in its own database files for each meter, thus maintaining a calibration history log and making it easy to undertake long-term trend analysis. Detailed observation can give early warning of possible system failure, enabling the maintenance engineer to anticipate problems and take remedial action in advance.

a unique solution to demands for in-situ calibration verification and certification

In addition, users automatically receive software upgrades and an annual CalMaster recalibration.

With more and more companies operating within an ISO 9001 environment, traceability to recognised standards is essential. However, the costs associated with traditional recalibration practices are prohibitive. CalMaster eliminates these costs and removes the 'unknown' quantity in flowmetering by enabling verification of calibration on site as often as required.

Specification

- **Verification Accuracy:** $\pm 0.15\%$ Transmitter.
 $\pm 1\%$ Complete system (MagMaster supplied for use with CalMaster). $\pm 2\%$ (Standard MagMasters).
- **Power Supply:** Internal rechargeable battery with 6 hours operation. Recharge adaptor supplied. 90-250 volts. Car cigarette charge adaptor.
- **Protection:** IP65.
- **Temperature Range:** 0-60°C.
- **System:** CalMaster supplied complete with all necessary cables, rechargeable adaptor etc. in aluminium transit case.
Dimensions 700 x 500 x 200mm.
- **PC (not supplied):** 386 or better, minimum 4Mb Ram and 5Mb hard disk space;
Windows™ - based software.
- **Accessories:** All included, except PC.



CalMaster

certified calibration verification without disruption

Routine verification of flowmeter calibration and the traceability of information are key to current auditing and regulatory requirements. In the past, this has proved difficult, time consuming and costly.

For example, in the water industry, the task could have entailed mechanical excavation of the flowmeter resulting in disruption of the water supply and the local community.

Unique solution

CalMaster™ is a unique solution to demands for in-situ calibration verification and certification. A world first from ABB Automation, it is an innovative portable system that allows calibration of MagMaster™ electromagnetic flowmeters to be verified without having to gain access to the pipe or the sensor.

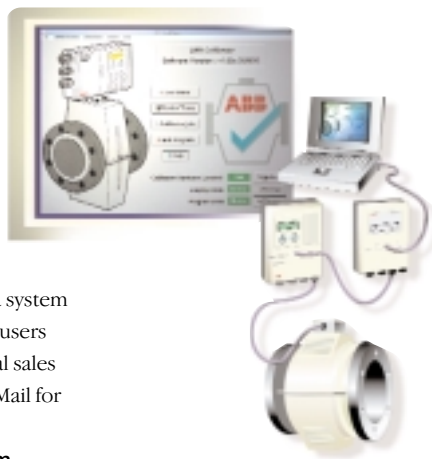
When CalMaster is connected to a MagMaster transmitter and a PC, it performs a complex series of tests, taking approx 20 minutes to evaluate the status of the complete system (i.e., the transmitter, sensor and interconnecting cables).

CalMaster is simplicity itself to operate. A user-friendly Windows™ interface guides the user through an automated series of tests. Having completed all the checks, CalMaster will then evaluate the measurements and if all these meet requirements then a calibration certificate can be printed either at that time or later.

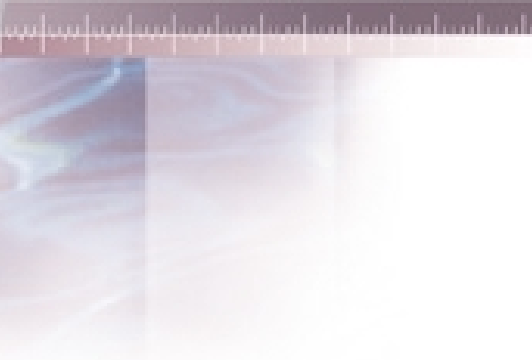
Helpline

In the unlikely event of a system not passing verification, users should contact their local sales office or the following eMail for immediate assistance:

Calmaster@gb.abb.com



CalMaster



ISO 9001
St Neots, UK
Cert. No. Q05907
Stonehouse, UK
Cert. No. FM 21106



ISO 14001
St Neots, UK
Cert. No. EMS 40882
Stonehouse, UK
Cert. No. EMS 40644

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