The Company

We are an established world force in the design and manufacture of instrumentation for industrial process control, flow measurement, gas and liquid analysis and environmental applications.

As a part of ABB, a world leader in process automation technology, we offer customers application expertise, service and support worldwide.

We are committed to teamwork, high quality manufacturing, advanced technology and unrivalled service and support.

The quality, accuracy and performance of the Company's products result from over 100 years experience, combined with a continuous program of innovative design and development to incorporate the latest technology.

The UKAS Calibration Laboratory No. 0255 is just one of the ten flow calibration plants operated by the Company and is indicative of our dedication to quality and accuracy.

Use of Instructions

⚠️ Warning. An instruction that draws attention to the risk of injury or death.

⚠️ Caution. An instruction that draws attention to the risk of damage to the product, process or surroundings.

🌟 Note. Clarification of an instruction or additional information.

ℹ️ Information. Further reference for more detailed information or technical details.

Although Warning hazards are related to personal injury, and Caution hazards are associated with equipment or property damage, it must be understood that operation of damaged equipment could, under certain operational conditions, result in degraded process system performance leading to personal injury or death. Therefore, comply fully with all Warning and Caution notices.

Information in this manual is intended only to assist our customers in the efficient operation of our equipment. Use of this manual for any other purpose is specifically prohibited and its contents are not to be reproduced in full or part without prior approval of the Marketing Communications Department.

Health and Safety

To ensure that our products are safe and without risk to health, the following points must be noted:

1. The relevant sections of these instructions must be read carefully before proceeding.
2. Warning labels on containers and packages must be observed.
3. Installation, operation, maintenance and servicing must only be carried out by suitably trained personnel and in accordance with the information given.
4. Normal safety precautions must be taken to avoid the possibility of an accident occurring when operating in conditions of high pressure and/or temperature.
5. Chemicals must be stored away from heat, protected from temperature extremes and powders kept dry. Normal safe handling procedures must be used.
6. When disposing of chemicals ensure that no two chemicals are mixed.

Safety advice concerning the use of the equipment described in this manual or any relevant hazard data sheets (where applicable) may be obtained from the Company address on the back cover, together with servicing and spares information.
The items in the following lists may be obtained from the Company, by quoting the relative Part Number.
2 ACCESSORIES AND SPARES

2.1 MagMaster

Fig. 2.1 MagMaster Accessories and Spares

Fig. 2.1
A Serial Data Lead (MagMaster to PC & Toshiba.) WEBC 0003
B Display Operating Wand MEBX 9902
C M20 Plastic Gland (with fittings) MUFA 9912
D Armoured Gland (with fittings) MUFA 9913
E Fuses (see Table 2.1)
F HART Command Summary Information MEFD 0001

Fig. 2.2
A Sensor Cable Junction Box (M20 fitting) WABX 0020
B Sensor Cable Junction Box (1/2" NPT fitting) WABX 0021
C 250g Potting Compound (Standard) 0218474
D Transmitter Terminal Cover (Remote Version) MEAX 9916
E Transmitter Terminal Cover (Integral Version) MEAX 9915
F Transmitter Terminal Cover Seal MEAX 9924
G Gasket (Hygienic Flowmeter) see Table 2.2
H Standard Sensor Cable Call Sales Office.
J Armoured Sensor Cable Call Sales Office.
### Table 2.1 Fuses

<table>
<thead>
<tr>
<th>Component Ref.</th>
<th>Part No.</th>
<th>Description</th>
<th>Supplier</th>
<th>Approvals</th>
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<tbody>
<tr>
<td>F1 - DC</td>
<td>B6490</td>
<td>FUSE 3.15A AS.T 20mm</td>
<td>SHURTER 034-3122</td>
<td>IEC 127/111</td>
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<td></td>
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<td></td>
<td>BUSSMAN S506/3.15A</td>
<td>IEC 127/111</td>
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<td></td>
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<td></td>
<td>BUSSMAN S506/3.15A</td>
<td>UL, BS4265</td>
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<tr>
<td>F1 - AC</td>
<td>B7721</td>
<td>FUSE 500mA AS.T 20mm</td>
<td>SHURTER 034-3114</td>
<td>IEC 127/111</td>
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<td>BUSSMAN S504/500MA</td>
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<td>BUSSMAN S506/500MA</td>
<td>UL, BS4265</td>
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</tbody>
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### Table 2.2 Gaskets (for Hygienic Flowmeters)

<table>
<thead>
<tr>
<th>Meter Size</th>
<th>Part No.</th>
<th>EPDM</th>
<th>Nitrile Rubber</th>
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</thead>
<tbody>
<tr>
<td>20mm (0.75in)</td>
<td>MRAX2708</td>
<td>MRAX2708</td>
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<td>25mm (1in)</td>
<td>MRAX2711</td>
<td>MRAX2811</td>
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<td>40mm (1.5in)</td>
<td>MRAX2712</td>
<td>MRAX2812</td>
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</tr>
<tr>
<td>50mm (2in)</td>
<td>MRAX2713</td>
<td>MRAX2813</td>
<td></td>
</tr>
<tr>
<td>65mm (2.5in)</td>
<td>MRAX2714</td>
<td>MRAX2814</td>
<td></td>
</tr>
</tbody>
</table>
2.2 AquaMag and AquaProbe

![Diagram of AquaMag/AquaProbe Accessories]

A Communication adaptor (to connect to Psion Organiser etc.)  WEBC 0004
B Serial Data Lead (to connect PC to ‘A’ above)  WEBC 0003
C Output Cable Assembly (14-core plus screen)  MVBX 99147
D Power Supply Lead  STT 3162
E Battery Pack  STT 3310
F Display Operating Wand  MEBX 9902

2.2.1 AquaProbe Replacement Parts

![Diagram of AquaProbe Replacement Parts]

Seal Replacement Kit (as shown)  MVFA 9919

Fig. 2.3 AquaMag/AquaProbe Accessories

Fig. 2.4 Replacement Parts
PRODUCTS & CUSTOMER SUPPORT

Products
Automation Systems
• for the following industries:
  – Chemical & Pharmaceutical
  – Food & Beverage
  – Manufacturing
  – Metals and Minerals
  – Oil, Gas & Petrochemical
  – Pulp and Paper

Drives and Motors
• AC and DC Drives, AC and DC Machines, AC motors to 1kV
• Drive systems
• Force Measurement
• Servo Drives

Controllers & Recorders
• Single and Multi-loop Controllers
• Circular Chart, Strip Chart and Paperless Recorders
• Paperless Recorders
• Process Indicators

Flexible Automation
• Industrial Robots and Robot Systems

Flow Measurement
• Electromagnetic Flowmeters
• Mass Flow Meters
• Turbine Flowmeters
• Flow Elements

Marine Systems & Turbochargers
• Electrical Systems
• Marine Equipment
• Offshore Retrofit and Refurbishment

Process Analytics
• Process Gas Analysis
• Systems Integration

Transmitters
• Pressure
• Temperature
• Level
• Interface Modules

Valves, Actuators and Positioners
• Control Valves
• Actuators
• Positioners

Water, Gas & Industrial Analytics Instrumentation
• pH, conductivity, and dissolved oxygen transmitters and sensors
• ammonia, nitrate, phosphate, silica, sodium, chloride, fluoride, dissolved oxygen and hydrazine analyzers.
• Zirconia oxygen analyzers, katharometers, hydrogen purity and purge-gas monitors, thermal conductivity.

Customer Support
We provide a comprehensive after sales service via a Worldwide Service Organization. Contact one of the following offices for details on your nearest Service and Repair Centre.

United Kingdom
ABB Limited
Tel: +44 (0)1453 826661
Fax: +44 (0)1453 829671

United States of America
ABB Inc.
Tel: +1 (0) 755 883 4366
Fax: +1 (0) 755 883 4373

Client Warranty
Prior to installation, the equipment referred to in this manual must be stored in a clean, dry environment, in accordance with the Company's published specification.

Periodic checks must be made on the equipment's condition. In the event of a failure under warranty, the following documentation must be provided as substantiation:
1. A listing evidencing process operation and alarm logs at time of failure.
2. Copies of all storage, installation, operating and maintenance records relating to the alleged faulty unit.