

- **Upgrade an existing AquaMag installation to AquaMaster performance**
 - enables advanced capabilities of AquaMaster to be used on existing sensors
- **Extend the life of installed sensors**
 - replaces obsolete AquaMag transmitter with the latest technology AquaMaster transmitter
- **Lower operating cost**
 - AquaMaster battery running costs lower than AquaMag
- **Longer interval between battery replacement**
 - 3 years instead of 1 year
- **No flat battery**
 - AquaMaster's twin battery system allows 1 year to change a cell, preventing loss of data caused by flat batteries
- **No Factory Calibration required**
 - on-site programme enables transfer of existing calibration data into the new AquaMaster
- **Enables 'Fit & Flow'**
 - once upgraded the transmitter can be exchanged without losing any site-settings or requiring configuration
- **Size range DN80 to DN300**



**Upgrade to the latest technology
flow transmitter**

Upgrade to AquaMaster

AquaMaster, a new generation of meters, is available in many forms:

- AquaMaster** Commercial water meter
- AquaMaster R** Battery-only version for Bulk Revenue applications
- AquaMaster S** An electronic water meter system with pressure measurement, in-built data logging and telemetry options.

Refer to the separate Data Sheets for details of these products' features and outputs:

AquaMaster Electronic Water Meter	SS/AMAS
AquaMaster Electronic Water Meter for Water Revenue Service	SS/AMAS/R
AquaMaster Electronic Water Meter for Water System Management	SS/AMAS/S

This adapter kit enables an existing installed AquaMag sensor to be interfaced to the new AquaMaster transmitter, thereby:

- Extending the life of a currently installed sensor without the need to replace it or interrupt the pipeline.
- Providing the latest features and performance of AquaMaster.

Upgrade Process

The adapter kit supplied comprises:

- 1) An intelligent 'Fit & Flow' adapter.
- 2) CD containing a PC programme to set-up and perform in situ adjustment and setup of the AquaMaster system.
- 3) Installation and operating manual.

The upgrade process is completed in the field and involves:

- 1) Cutting the sensor cable where it connects to the AquaMag transmitter.
- 2) Terminating this sensor cable in an intelligent adapter box.
- 3) Connecting the intelligent adapter to an AquaMaster transmitter.
- 4) Setting up the intelligent adapter box with the PC program provided. This operation is simplified as the key calibration data is retrieved automatically from the old AquaMag transmitter before it is disposed-of. A manual data entry process is available for faulty AquaMags.
- 5) For DN80 to DN150 sized sensors, which require the highest accuracy, a special trim process can be followed.

For DN80 to DN150 diameter sensors an option is available to obtain higher accuracy which requires extra equipment for the upgrade. This equipment is a field tool for enhancing the upgrade process and comprises:

- 1) A mains-/battery-powered AquaMaster.
- 2) A portable mains-power supply with battery pack.
- 3) A 'Trim' program for the PC (supplied).

None of this equipment is included as part of the permanent installation.

Specification

Flow Accuracy

Additional errors due to upgrade

Size	Accuracy (Span) without in situ trimming	Accuracy (Span) with in situ trimming
DN80 DN100 DN150	±7%	±2%
DN200 DN250 DN300	±1.5%	±1%

Zero accuracy

±4 mm/s

Battery Life @ 0 to 50°C (32 to 122°F)

Product	1 Battery	2 Batteries
AquaMaster	1.2 years	3 years
AquaMaster – R	1.2 years	3 years
AquaMaster – S	1.0 years	2.5 years

Note. Outside the stated temperature range the battery capacity is reduced.

Environmental

IP68 (NEMA 6P) to 2m (78 in.)

Temperature Range

-10 to 70°C (14 to 158°F)

Connections

AquaMag cable: Non-armored only

AquaMaster cable: Non-armored, submersible

AquaMaster cable termination:

7 pin MIL Connector (part no. WABC2006)

Wire-ended (part no. WABC2005)

Equipment Required for Upgrade (not supplied in upgrade pack)

AquaMag communications lead (part no WEBC0004)

AquaMaster communications lead (part no WEBC2000)

Laptop PC running Windows 95, 98 or NT

Additional Equipment Required for In Situ Span Trimming (DN80 – DN150 only)

Mains-/battery-powered AquaMaster transmitter

110/230V power source (normally an inverter)

Power pack for the above inverter if mains power not available on-site

Adapter Kit

AquaMag Sensor to AquaMaster Transmitter

SS/AMAG2AM_1

Ordering Information

Adapter Box with Software

Order Part No. WABC 2005 – version with free end for termination via M20 plastic gland into transmitter

or

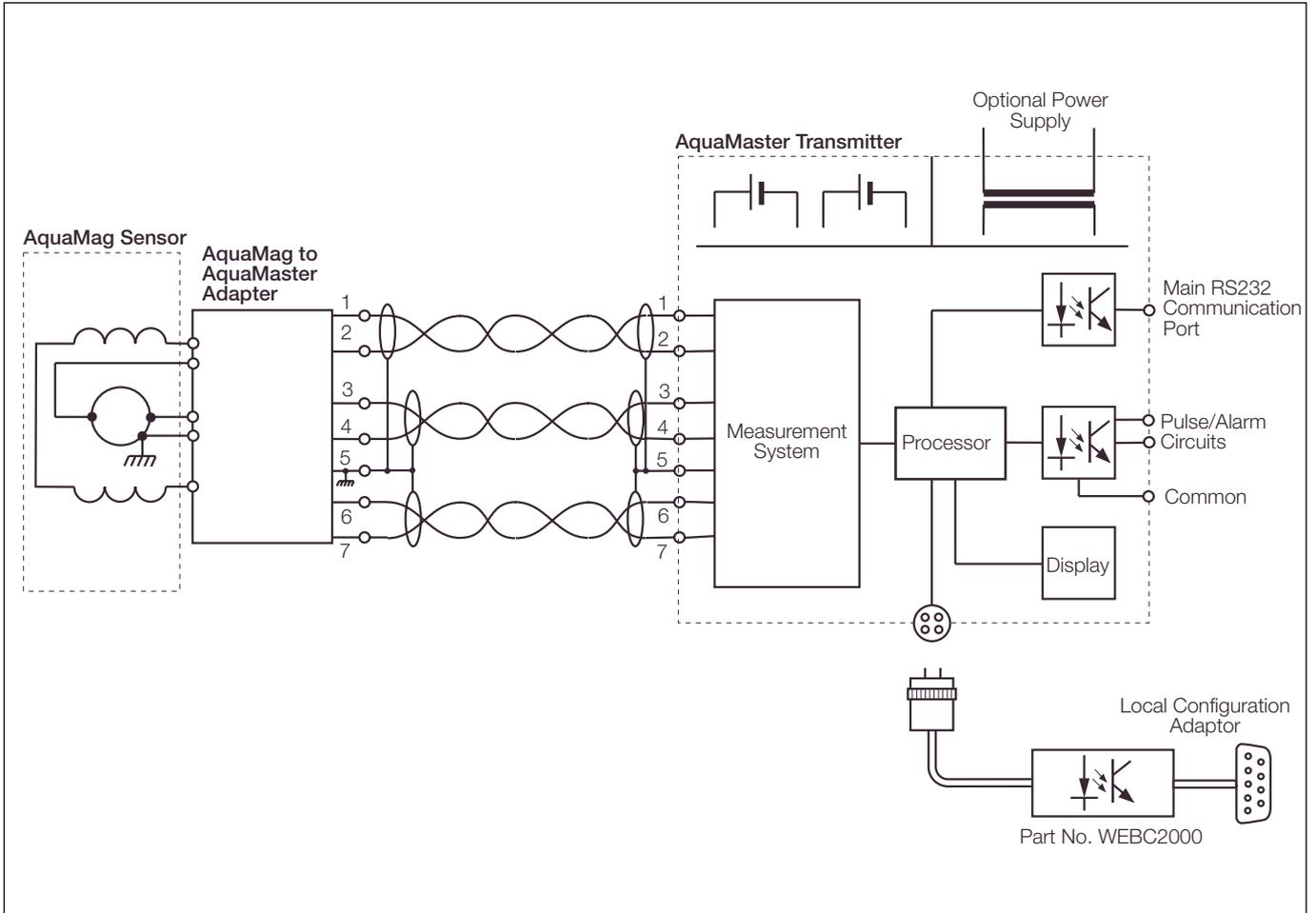
WABC 2006 – version with 7-pin MIL sensor plug to mate with an AquaMaster transmitter fitted with socket

Plus

AquaMaster Electronic Water Meter	MM/G A	X	0000	X	X	X	000	X	0000	X	X	00
Language												
English	G											
French	F											
German	D											
Spanish	E											
Italian	I											
Dutch	H											
Not used			0000									
Transmitter Type												
Metal enclosure												8
Plastic enclosure												C
Power Supply												
AC												L
AC (with battery backup)												A
Battery												B
Options												
Electronic display unit												0
Electronic display unit + potting (metal transmitter only)												A
Not used												
Cable Entries												
20mm plastic glands												1
MIL connector (sensor) + 20mm plastic gland (outputs/power)												5
MIL connector (sensor) + 19-way MIL connector												6
Not used												
Communications Option												
Not required												0
Remote port RS232 C												1
Logger Options												
No logger												1
With logger + ABB Software												1
With logger + Technolog software enabled												3
With logger + Primayer software enabled												4
Not used												

Note. Other options, such as pressure measurement, are available

Electrical Connections

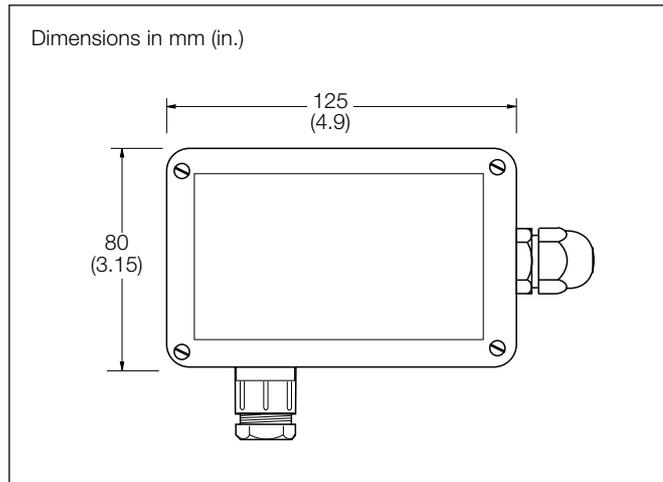


Adapter Kit

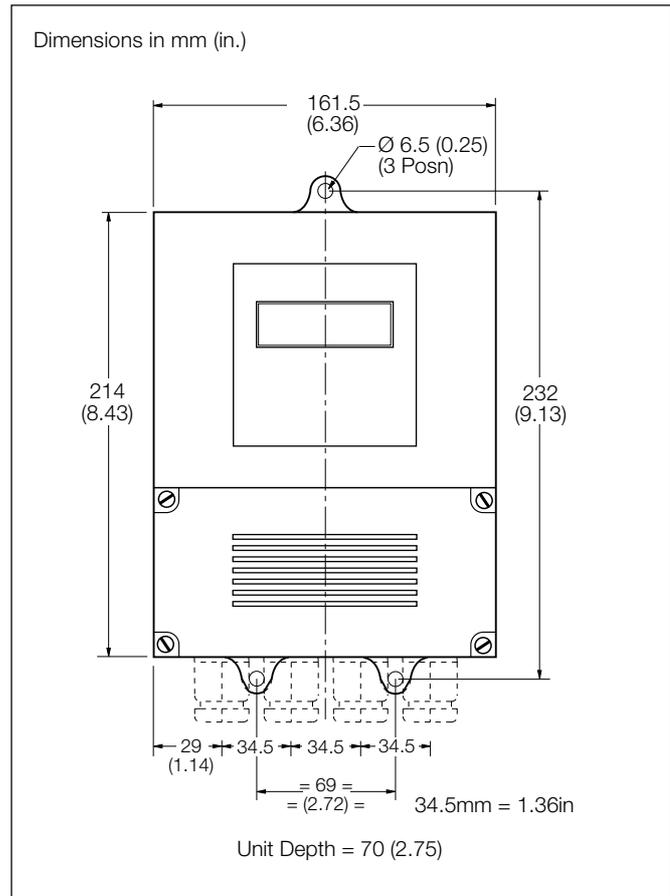
AquaMag Sensor to AquaMaster Transmitter

SS/AMAG2AM_1

Overall Dimensions

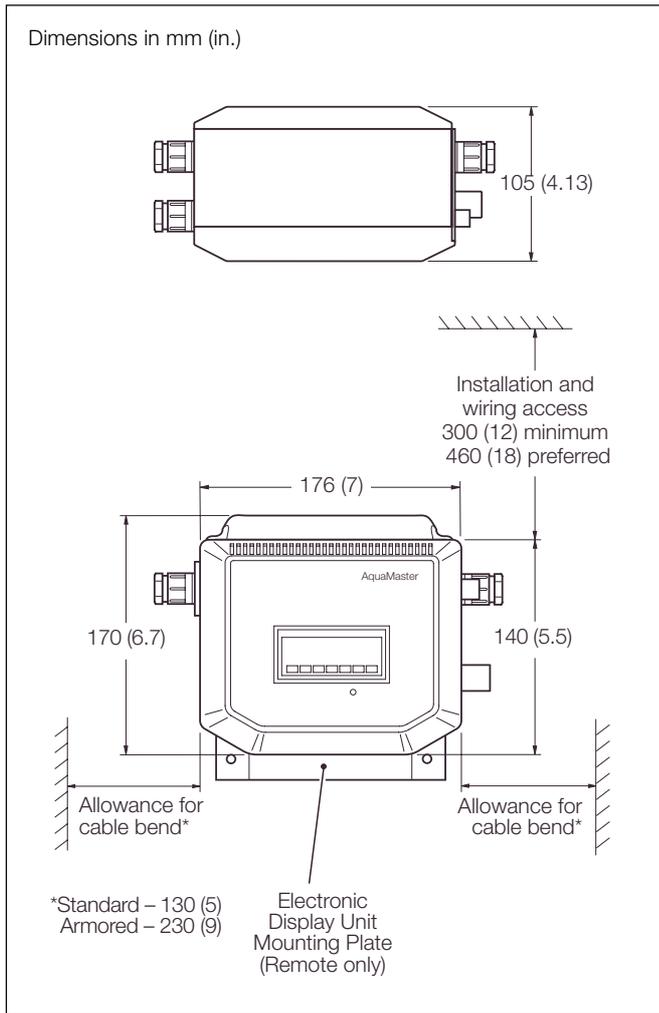


Intelligent 'Fit-and-Flow' Adapter



IP65/NEMA4X Electronic Display Unit

Adapter Kit



IP68/NEMA6P Electronic Display Unit

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Adapter Kit

AquaMag Sensor to AquaMaster Transmitter

SS/AMAG2AM_1

ABB has Sales & Customer Support
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www.abb.com

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