



# Aquadopp Profiler 2 MHz - Legacy



**This version of the Aquadopp Profiler is no longer available.**

Please see the [Aquadopp Profiler 2](#).

This version of the Aquadopp remains functional and supported. Please visit our [support center](#) if you require assistance.

## Highlights

## Applications

## Technical specifications

| Water velocity measurements   |                                 |
|-------------------------------|---------------------------------|
| Maximum profiling range       | 4-10 m                          |
| Cell size                     | 0.1-2 m                         |
| Minimum blanking              | 0.05 m                          |
| Maximum number of cells       | 96                              |
| Measurement cell position     | N/A                             |
| Default position (along beam) | N/A                             |
| Velocity range                | ±10 m/s                         |
| Accuracy                      | ±1% of measured value ±0.5 cm/s |
| Velocity precision            | Consult instrument software     |
| Maximum sampling rate(output) | 1 Hz                            |
| Internal sampling rate        | 23 Hz                           |

  

| Echo intensity (along slanted beams) |                  |
|--------------------------------------|------------------|
| Sampling                             | Same as velocity |
| Resolution                           | 0.45 dB          |
| Dynamic range                        | 90 dB            |
| Transducer acoustic frequency        | 2 MHz            |
| Number of beams                      | 3                |
| Beam width                           | 1.7°             |

  

| HR option               |     |
|-------------------------|-----|
| Maximum profiling range | 3 m |

## HR option

|                            |  |
|----------------------------|--|
| Cell size                  | 7-150 mm   |
| Minimum blanking           | 0.03 m   |
| Maximum number of cells    | 128  |
| Range/Velocity limitations | Product of profiling range and velocity should not exceed 0.5 m <sup>2</sup> /s (2 MHz system) |
| Accuracy                   | ±1% of measured value ±0.5 cm/s  |
| Max. sampling rate         | 1 Hz (continuous mode, )8 Hz (burst mode)”   |

## Sensors

|                           |                                |
|---------------------------|--------------------------------|
| Temperature:              | Thermistor embedded in head    |
| Temp. range               | -4 to +40 °C                   |
| Temp. accuracy/resolution | 0.1 °C/0.01 °C                 |
| Temp. time response       | 10 min                         |
| Compass:                  | Magnetometer                   |
| Accuracy/resolution       | 2°/0.1° for tilt < 20°         |
| Tilt:                     | Liquid level                   |
| Accuracy/resolution       | 0.2°/0.1°                      |
| Maximum tilt              | 30°                            |
| Up or Down                | Automatic detect               |
| Pressure:                 | Piezoresistive                 |
| Range                     | 0-100 m (inquire for options)  |
| Accuracy/precision        | 0.5% FS / 0.005% of full scale |

## Data recording

|                    |                                       |
|--------------------|---------------------------------------|
| Capacity           | 9 MB, can add 4/16 GB                 |
| Data record        | 9*Ncells + 32 bytes                   |
| Diagnostics record | N/A                                   |
| Wave record        | Nsamples * 24 + 60 bytes              |
| Mode               | Stop when full (default) or wrap mode |

## Real-time clock

|                            |             |
|----------------------------|-------------|
| Accuracy                   | ±1 min/year |
| Backup in absence of power | 4 weeks     |

## Data communications

|                             |  |
|-----------------------------|--|
| I/O                         | RS-232 or RS-422   |
| Communication baud rate     | 300-115200 Bd  |
| Recorder download baud rate | 600/1200 kBd for both RS-232 and RS-422  |
| User control                | Handled via "Aquadopp" software, ActiveX®function calls, or direct commands with binary or ASCII data output |

## Software

|           |   |
|-----------|---|
| Functions | Deployment planning, instrument configuration, data retrieval and conversion (for Windows®) |
|-----------|---|

## Power

|          |           |
|----------|-----------|
| DC input | 9-15 V DC |
|----------|-----------|

## Power

|                        |                               |
|------------------------|-------------------------------|
| Maximum peak current   | 3 A                           |
| Avg. power consumption | 0.03 W                        |
| Sleep current          | < 100 $\mu$ A                 |
| Transmit power         | 0.3-20 W, 3 adjustable levels |

## Batteries

|                     |   |
|---------------------|---|
| Battery capacity    | 1) 50 Wh (alkaline or Li-ion), 2) 165 Wh (lithium), 3) Single or dual |
| New battery voltage | 13.5 V DC (alkaline)  |

## Environmental

|                       |   |
|-----------------------|---|
| Operating temperature | -5 to +40 °C                            |
| Storage temperature   | -20 to +60 °C                           |
| Shock and vibration   | IEC 60068-1/IEC60068-2-27/IEC60068-2-64 |
| EMC approval          | IEC 61000                               |
| Depth rating          | 300 m, (3000 m and 6000 m option)       |

## Connectors

|          |                                       |
|----------|---------------------------------------|
| Bulkhead | MCBH-8-FS                             |
| Cable    | PMCIL-8-MP on 10 m polyurethane cable |

## Materials

|                |   |
|----------------|---|
| Standard model | POM and polyurethane plastics with titanium fasteners |
|----------------|---|

## Dimensions

|                  |  |
|------------------|--|
| Maximum diameter | 75 mm  |
| Maximum length   | ~550 mm (single battery), +110 mm (double battery) depending on head configuration |

## Weight

|                 |        |
|-----------------|--------|
| Weight in air   | 2.2 kg |
| Weight in water | 0.2 kg |