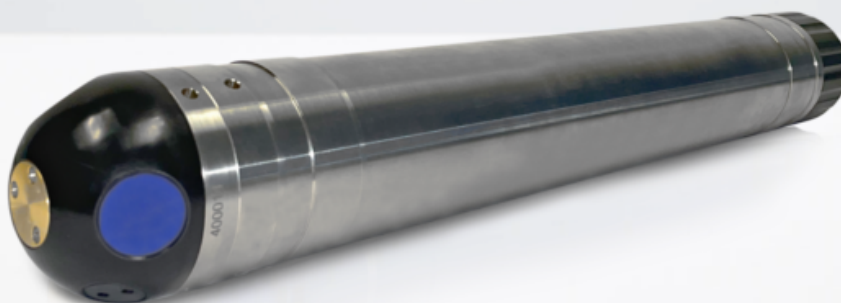


## Aquadopp 2 - 6000 m



**NEW!**



### **Courantomètre ponctuel grands fonds conçu pour les longs déploiements avec corps en titane**

With all the features and capabilities of the standard Aquadopp, the deepwater Aquadopp 6000 m current meter has been used and proven by oceanographers around the world for almost 20 years. Thanks to innovative data diagnostic features for challenging environments, it provides exceptionally high-quality 3D currents in a form factor that is easy to install in any type of mooring line configuration, or simply attached to a bottom or surface platform.

Raw magnetometer data can be stored for post calibration of compass when used without the inductive modem option.

## Highlights

- ✓ Full ocean-depth single-point current meter
- ✓ Titanium housing
- ✓ Diagnostics mode for mooring performance evaluation

## Applications

- ✓ Studies of deep-water currents
- ✓ Studies of tidal currents
- ✓ Attached to mooring lines
- ✓ Measurements of unaffected currents from physical structures
- ✓ In conjunction with riser monitoring systems
- ✓ Alternative to conventional current meters with errors due to fouling
- ✓ Combination of currents and high-accuracy CTD data
- ✓ Near-bed current measurements from landers
- ✓ Deep ocean mining support

## Technical specifications

### → Water velocity measurements

|   |  |
|---|--|
| Cell size   | 0.75 m                                     |
| Maximum number of cells                               | 1  |
| Distance to measurement                               | 1.0-6.0 m (user-selectable)                |
| Velocity range  | $\pm 1$ m/s, $\pm 2.5$ m/s, $\pm 5$ m/s    |
| Accuracy  | $\pm 1\%$ of measured value $\pm 0.5$ cm/s |
| Horizontal velocity precision (consult instrument SW) | Typ. 1 cm/s                                |
| Maximum sampling rate (output)                        | 2 Hz                                       |
| Internal sampling rate                                | 4 Hz                                       |

### → Echo intensity

|                               |                  |
|-------------------------------|------------------|
| Sampling                      | Same as velocity |
| Resolution                    | 0.5 dB           |
| Dynamic range                 | 90 dB            |
| Transducer acoustic frequency | 2 MHz            |
| Number of beams               | 3                |
| Beam width                    | 1.7°             |

### → Sensors

Temperature:

|                           |                |
|---------------------------|----------------|
| Temp. range               | -4 to +40 °C   |
| Temp. accuracy/resolution | 0.1 °C/0.01 °C |
| Temp. time response       | <1 min         |

Compass: Solid State Magnetometer

Accuracy/resolution <2° for tilt < 30° / 0.01°

Tilt: Solid state accelerometer

Accuracy/resolution 0.2° for tilt < 30° / 0.01°

Maximum tilt 3D

Up or Down Automatic detect

Pressure: Piezoresistive

Range 6000 m

Accuracy/precision 0.25% FS / 0.005% of full scale

### → Digital inputs

|                      |              |
|----------------------|--------------|
| No. of channels      | 1            |
| Digital Input format | MicroCat CTD |

### → Data recording

Capacity 16 GB

### → Real-time clock

|          |             |
|----------|-------------|
| Accuracy | ±1 min/year |
|----------|-------------|

|                            |         |
|----------------------------|---------|
| Backup in absence of power | 4 weeks |
|----------------------------|---------|

### → Data communications

|     |        |
|-----|--------|
| I/O | RS-422 |
|-----|--------|

|                         |  |
|-------------------------|--|
| Communication Baud Rate | 9600 Baud- 1.2 Mbaud (default 115200 Baud) |
|-------------------------|--|

|              |   |
|--------------|---|
| User control | Nortek Deployment Software or direct ASCII commands, with binary or ASCII data output |
|--------------|---|

### → Software

|                  |          |
|------------------|----------|
| Operating system | Agnostic |
|------------------|----------|

|           |  |
|-----------|--|
| Functions | Deployment planning, instrument configuration, data retrieval and conversion. Online data display. |
|-----------|--|

### → Power

|          |          |
|----------|----------|
| DC input | 9-24 VDC |
|----------|----------|

|                          |        |
|--------------------------|--------|
| Absolut maximum DC input | 26 VDC |
|--------------------------|--------|

|                      |       |
|----------------------|-------|
| Maximum peak current | 4.5 A |
|----------------------|-------|

|                   |                                    |
|-------------------|------------------------------------|
| Power consumption | Consult Nortek Deployment Software |
|-------------------|------------------------------------|

|               |         |
|---------------|---------|
| Sleep current | < 10 uA |
|---------------|---------|

|                |                                  |
|----------------|----------------------------------|
| Transmit power | 0.45-45 W, adjustable over 20 dB |
|----------------|----------------------------------|

### → Batteries

|                           |  |
|---------------------------|--|
| Internal battery capacity | 1-3 x 50 Wh (Alkaline); 1-3 x 165 Wh (Lithium); 1-3 x 76 Wh (Li-ion) |
|---------------------------|--|

|                |   |
|----------------|---|
| Battery weight | 430g per 50 Wh (Alkaline); 380g per 165 Wh (Lithium); 300g per 76 Wh (Li-ion) |
|----------------|---|

|                     |          |
|---------------------|----------|
| New battery voltage | 13.5 VDC |
|---------------------|----------|

### → Environmental

|                       |              |
|-----------------------|--------------|
| Operating temperature | -5 to +40 °C |
|-----------------------|--------------|

|                     |               |
|---------------------|---------------|
| Storage temperature | -20 to +60 °C |
|---------------------|---------------|

|                     |  |
|---------------------|--|
| Shock and vibration | Shock: IEC 60068-2-27, Vibration: IEC 60068-2-64 |
|---------------------|--|

|              |  |
|--------------|--|
| EMC approval | EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019 |
|--------------|--|

|              |       |
|--------------|-------|
| Depth rating | 6000m |
|--------------|-------|

### → Connectors

|                    |                    |
|--------------------|--------------------|
| Bulkhead (Impulse) | MCBH-8-FS titanium |
|--------------------|--------------------|

|       |   |
|-------|---|
| Cable | PMCIL-8-MP on 5m (default) polyurethane cable |
|-------|---|

### → Materials

|                |   |
|----------------|---|
| Standard model | Titanium Gr. 5, POM, Naval Brass, epoxy |
|----------------|---|

### → Dimensions (see drawings for details)

|                          |       |
|--------------------------|-------|
| Maximum housing diameter | 84 mm |
|--------------------------|-------|

|                |        |
|----------------|--------|
| Maximum length | 623 mm |
|----------------|--------|

### → Weight

|                                   |        |
|-----------------------------------|--------|
| Weight in air (without batteries) | 7600 g |
|-----------------------------------|--------|

|                                     |        |
|-------------------------------------|--------|
| Weight in water (without batteries) | 4350 g |
|-------------------------------------|--------|

## → Arrangements

D2VC

Deep water, 2Mhz, Vertical orientation, Current meter