# Installation Instructions

V1

# VDO Sumlog

V1.1 08/2016

AMZ
YACHTING

## Contents

## Preliminary Remarks

In purchasing a Sumlog sensor from the VDO AcquaLink marine range you have decided on a high value product, which has been manufactured according to acknowledged technical standards. Modern production processes and compliance with currently applicable quality assurance standards guarantee that our products leave the factory in perfect condition.
We thank you for making a good choice, and we are convinced that this instrument will be reliable and a great help to you and keep you safe at sea.

In order to ensure easy and safe handling of your VDO Sumlog, you should familiarize yourself with all the features and functions.

Please take the time to read these instructions carefully and completely.

## Safety Instructions for Installation

This product has been developed, manufactured and tested in accordance with the requirements of EC and UL directives and the acknowledged state of the art.

Please follow all the instructions given in this handbook exactly.

Please pay attention to all text passages labeled with this symbol. These are very important hints for operating and security of the instruments.

Before beginning work the negative terminal of the battery should be disconnected.

Use of information provided by the VDO Sumlog does not release you from the responsibility over your ship and demands good seamanship. Always use your nautical experience in interpreting the displayed values.

If you carry out this work yourself, wear suitable working clothes. Do not wear wide fitting clothes. If you have long hair, wear a hair-net. Clothes and hair can get caught in moving and rotating parts.

Wearing of metallic or conductive jewellery, such as necklaces, bracelets, rings etc. is not allowed when working on the electrical installation on board.

Please note that with disconnection of the battery, all volatile electronic memories lose their input values and must be reprogrammed.

Explosion hazard! Before beginning work on the engine compartment of petrol engines, switch on the ventilator of the engine compartment.

When carrying out installation work with a sealing compound, solvent vapours can be formed. Make sure of adequate ventilation and follow the instructions for use of the sealing compound manufacturer.

For the installation only use VDO approved cables.

If you don't use standard cables, the wires used should be adequately insulated or should have sufficient electrical strength, and the contact point should be protected against electrical shock hazard. The electrical conducting components of the connected consuming devices should also be protected against direct contact through suitable measures. Installation of bare metallic wires and contacts is not allowed.

Take account of the wire cross section. A reduction of the wire cross section results in a higher current density. This can cause the wire to heat up and potentially cause fire.

Connect the wires only in accordance with the wiring diagram.

## The VDO Sumlog

The Sumlog® Transducer is required to measure boat speed through water. The Sumlog® includes two paddle wheels which can be exchanged to match the speed range of the boat, thereby supporting speeds from 0 to 18 or up to 50 knots respective of the installed paddle wheel.

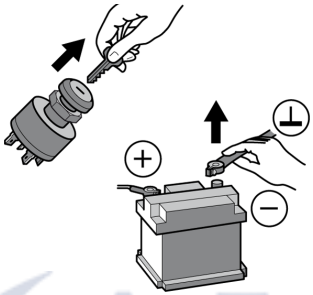
## Components

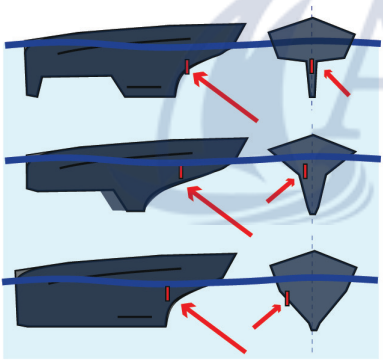
In the box:

- Sumlog
- Thru-hull fitting
- Valve
- Blind plug
- Additional paddlewheel (50 kn)
- Installation instruction
- Mounting template
- Safety instructions

## Installation of the VDO Sumlog

Before beginning, disconnect the negative terminal on the battery, otherwise you risk a short circuit. If the craft is supplied by auxiliary batteries, you must also disconnect the negative terminals on these batteries! Short circuits can cause fires, battery explosions and damages to other electronic systems. Please note that when you disconnect the battery, all volatile electronic memories lose their input values and must be reprogrammed.

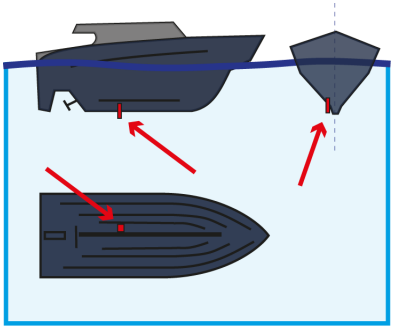




- Make sure that the transducer is sited through the hull at a point where there is no turbulent flow of water.

- With sailboats, this will invariably be before the keel, i.e., about three hull thicknesses forward and close to the fore-and-aft line as possible.

- In case of long-keeled boats, always site the transducer within the forward third of the hull, but never next to the widest section of the keel.

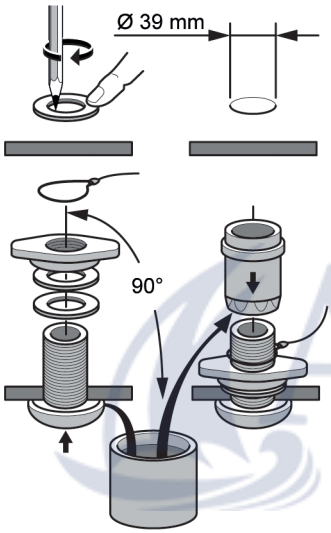


- In the case of powerboats, position the transducer at the forward end of the aft third. Never locate it at the stern in the high-turbulence region or at the bow, where there is also interference due to turbulent water flow and/or cavitation and aeration.

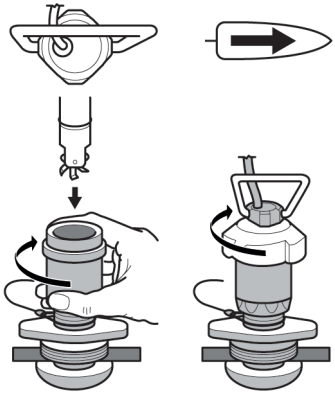
- Do not install the Sumlog transducer next to external depth-sounder transducers, sea valves, sacrificial anodes, etc.

- Mount through-hull fitting and flap valve as shown in the drawing below.

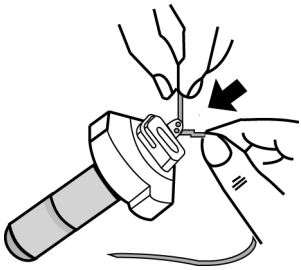
**Note:** Maximum tightening torque of retaining nut: 50Nm max, i.e. hand-tight with approximately a quarter turn added.




- Next insert the transducer. Be sure to position it so that the nose of the handle is aimed in exactly the same direction as the bow.



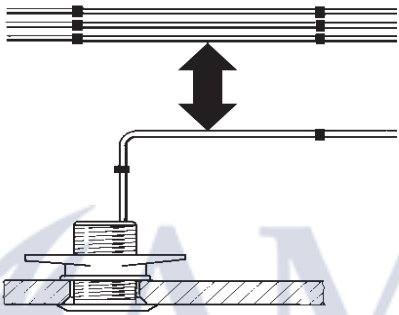
Attach the cord to the blind plug.



## Routing the Transducer Cable

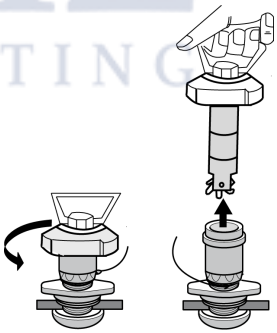
- Connect the short transducer cable to the VDO extention cable. Secure the screw on top of the connector.
- To prevent ignition pulses or other electrical interference from affecting the performance of the VDO Sumlog, never run the transducer cable together with other cables or leads through a common loom or harness.

Although the connectors used between the transducer and connecting cable are watertight, we do not recommend keeping them immersed in bilge water.



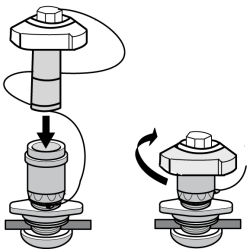
## Blind Plug

When you bare going to moor your boat for extended periods or to trailer it, or when you find marine groth or plankton obstructing the paddlewheel, retract the transducer and put the blind plug in its place.

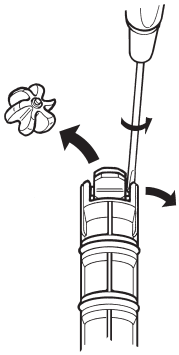


**Note:** The flap valve is designed to prevent flooding but not to provide a watertight seal.

**Note:** Always use the handle to withdraw transducer.



Caution!
To prevent the paddlewheel axle from getting damaged, withdraw the transducer before trailering the boat.



## Exchanging Paddlewheel

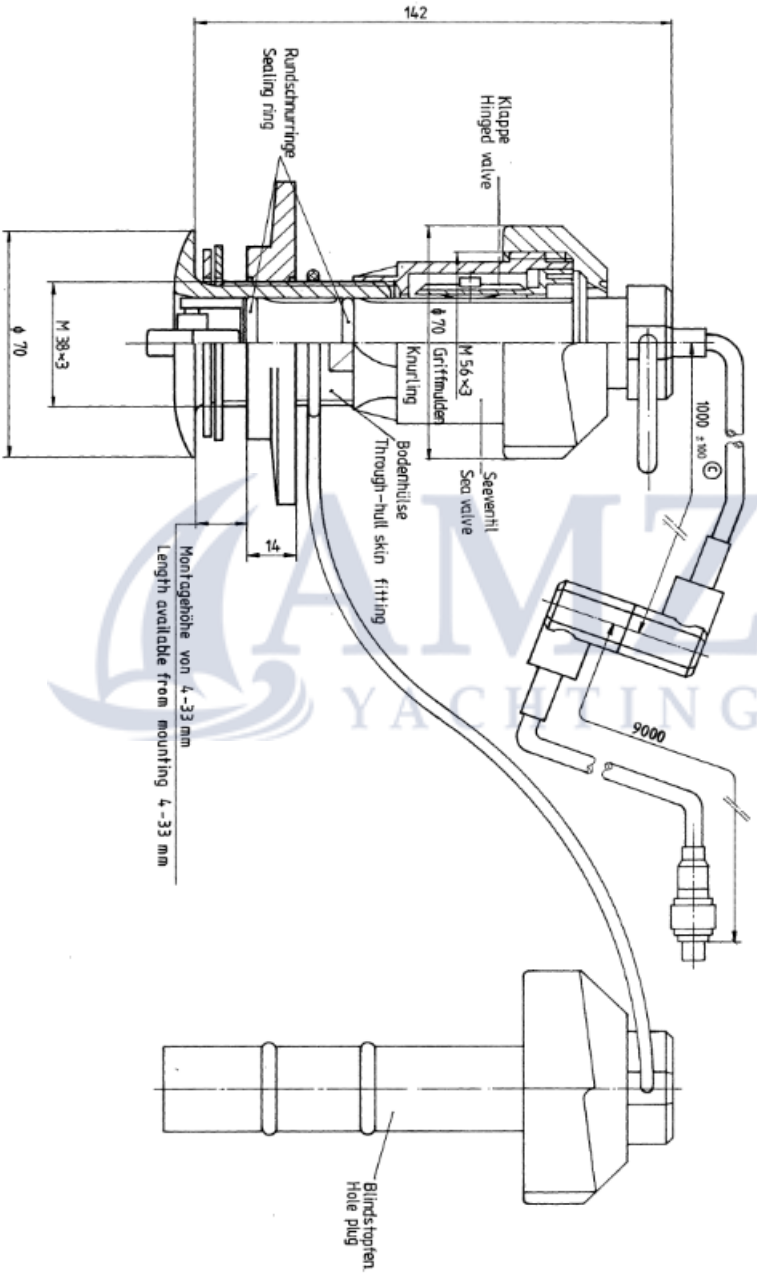
The Sumlog comes equipped with a paddlewheel optimized for speed between 10 and 18kn. In the box a 50kn paddlewheel is included.

You can also exchange/replace the wheel if it gets lost or damaged.

## Checking Installation and Making Corrections

Due to the variety of hull designs, there may be variations of +/-2% from the instrument accurancy even with optional transducer mounting.
Therefore be sure to check the accurancy of the distance and the speed readout by running the boat over a measured distance (between two seamarks or the like) in both directions.
Make corrections by using the setting menu of the Nav Box system.

## Hardware Specification



## Technical Data

| | |
|---|---|
| **Housing Material** | PC |
| **Connectors** | 4 Pin Hirschmann;<br>4 Pin M12 on extention cable |
| **Operating temperature** | -20°C / +70°C |
| **Storage temperature** | -40°C / +85°C |
| **Operating voltage range** | 10 – 30 VDC |
| **Current consumption** | < 150mA |
| **Protection Class** | IP 65 |
| | According to IEC 60529:2001;<br>in nominal position |
| **EMC** | DIN-EN 61000-6-2:2006<br>IEC 60945:2002 |
| **Approval** | CE |

## Accessories

| Part Number | Item Specifics |
|---|---|
| 270-023-005-003D | Paddel Wheel 12-20kn |
| 270-023-005-004D | Paddel Wheel 30kn |
| 270-023-005-005D | Paddel Wheel 50kn |
| A2C3986520001 | Blindplug |
| N05-800-258 | Valve |
| A2C39488200 | LOG Cable 10m |
| A2C59501953 | WIND (analog) Cable 30m |
| A2C59502180 | Thru-Hull Fitting |

Continental Automotive Switzerland AG
Industriestrasse 18
9464 Rüthi
Switzerland

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