

Datasheet

Origin 600 Nano Dunker Kit



The Origin 600 Nano Dunker kit features the Modem 6 Nano, and is a simple and compact topside solution for acoustic communications with the Origin 600 ADCP.

The 6G Modem 6 Nano operates in Sonardyne Wideband®2 and combines the functions of transponder and transceiver with full modem capability in a single small form factor and low power unit for use with Origin 600 ADCP.

Modem 6 Nano is an MF omnidirectional device and perfect for remote operation of the Origin 600 ADCP when used together with Origin Topside software.

Combined with a 20 m cable and Universal Interface Hub, the Modem 6 Nano makes up the cost-effective Origin 600 Nano Dunker kit.

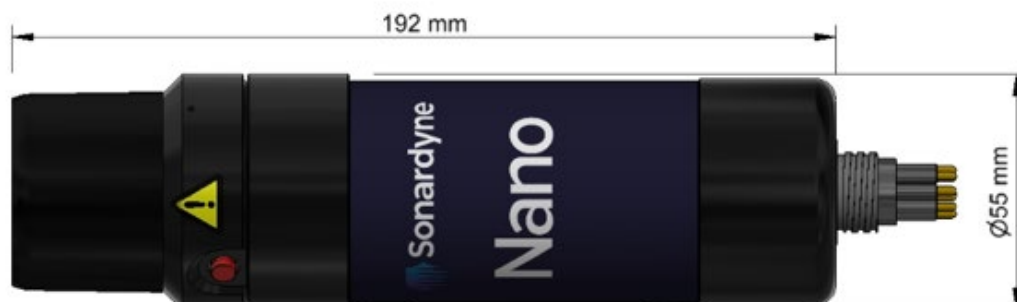
The Nano is simply connected to a laptop with Origin Topside software, lowered over the side of a vessel or off a dockside, and communications with an Origin 600 can commence.

Key Features

- Incorporates Sonardyne Wideband 2 acoustic technologies
- Medium frequency operation for use with the Origin 600 MF integrated acoustic modem
- Full transceiver functionality for remote command and control
- Full modem capability
- Depth rated to 500 m
- Compact form factor
- Solid omnidirectional transducer
- Powerful acoustic transmission level
- International plug
- Low power consumption

Specifications

Origin 600 Nano Dunker Kit



Feature		Specification
Depth rating		500 m
Operating frequency		MF (20–34 kHz)
Transducer beam shape		Omni-directional $\pm 130^\circ$
Transmit source level (re 1 μPa @ 1 m)		184/175 dB
Range precision		Better than 15 mm
Depth sensor		$\pm 0.7\%$ full scale
Communication interface		RS232, 3V3 TTL
External supply voltage Nano ¹		12–28 V dc
Power consumption	Wideband listening (battery)	5 mW
	Wideband listening (ext. power) ²	20 mW (including trickle charge)
	Battery charging	60 mW to 2.5 W (depending on battery charge state)
	Peak (transmission)	<30 W SMS, <20 W modem
Battery life	Quiescent listening	> 90 days
	1 sec ping rate	> 12 hours
Battery charge time		12 hours
External connections		Subconn MCIL8M
Mechanical construction		Polymer
Operating temperature ³		-10 to 45°C
Storage temperature ⁴		-20 to 55°C
Dimensions (length x diameter)		192 x 55 mm
Weight in air/water		584/162 g
Universal Interface Hub		
External connections		Subconn MCIL8F Micro USB serial port DB9 Serial port
External supply voltage Dunker Kit		110-230 V ac
Dimensions ⁵ (length x width x height)	Not including connectors	112 x 70 x 35 mm
	Including connectors	142 x 70 x 35 mm
Dunker cable		
20 m dunker cable		Subconn MCIL8F to MCIL8M

¹ Noise on the external dc supply may have an effect on the acoustic performance of the instrument.

² Includes top-up charging of the li-ion battery, which could be disabled, or managed intelligently for better efficiency.

³ The battery will not charge above 45°C.

⁴ To maximise battery life, the instrument should not be stored above 30°C.

⁵ Approximate dimensions.