www.geomatrix.co.uk
sales@geomatrix.co.uk
Tel: 01525 383438

WNA Winch Data Sheet

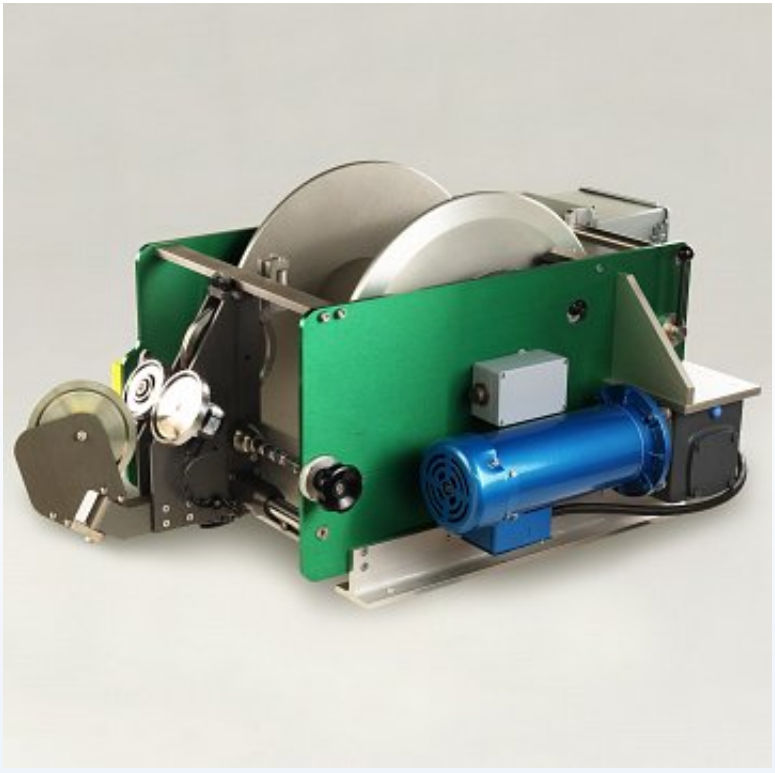
WNA Winch: Vehicle-Mounted, High-Capacity Solution

The **WNA Winch** is specifically designed for mounting within a vehicle, offering a robust and compact solution for geophysical logging in the field. Capable of spooling up to 1800 meters of wireline cable, this winch provides the extended reach needed for deeper borehole applications.

Key features include:

- Slip Rings: Ensures reliable transmission of signals and power between the rotating drum and stationary components.
- Depth Encoder: Accurately tracks the depth of the cable, ensuring precise measurements during logging.
- Level Wind Gear: Automatically guides the wireline onto the drum, ensuring smooth and even spooling.

Together, these components form a complete, self-enclosed package, offering efficient operation and ease of use in challenging field environments.



WNA Winch and tension gauge. Image Courtesy of Mt Sopris Instruments.

WNA Winch: Advanced Monitoring and Integration

The **WNA Winch** is equipped with a comprehensive winch controller that displays real-time depth, speed, and tension during data acquisition. This provides immediate feedback, allowing operators to quickly identify and address any deployment issues.

Designed to integrate seamlessly with the **MATRIX logging console** and **LoggerSuite** software, the WNA winch supports all Mount Sopris, ALT, and third-party borehole tools, ensuring compatibility with a wide range of geophysical logging equipment.

Geomatrix Earth Science Limited, Unit 20 Eden Way, Pages Industrial Park, Leighton Buzzard, Bedfordshire, LU7 4TZ

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sales@geomatrix.co.uk
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WMA Winches: High-Capacity, Versatile Solutions

The WMA Winches are designed to handle loads of up to 272kg at speeds ranging from 0 to 90 meters per minute. These winches are ideal for borehole depths between 1000 and 1800 meters and are compatible with a wide variety of wireline cable types, providing flexibility for different logging needs.

Custom and Complete Vehicle Solutions

These winches can be supplied with custom fittings for easy installation into an existing vehicle. Alternatively, Geomatrix offers a ready-to-run, fully interrogated borehole logging vehicle that includes the winch and all necessary equipment, tailored to your specific requirements.

To date, Geomatrix has facilitated and managed numerous vehicle outfitting projects in collaboration with Mount Sopris Instruments for customers across Europe and Africa.



This Integrated Mount Sopris Borehole Logging System is a complete, all-in-one solution for efficient geophysical logging. Featuring an adjustable boom, winch, probe storage, and work station, the system is designed to streamline operations and improve workflow in the field.

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4WNA	Max Speed	Max Continuous Load	Max Instantaneous Load
Low Speed	9 m/min (30 ft/min)	272 kg (600 lbs)	363 kg (800 lbs)
High Speed	27 m/min (90 ft/min)	113 kg (250 lbs)	136 kg (300 lbs)

4WFA	Max Speed	Max Continuous Load	Max Instantaneous Load
Low Speed	30 m/min (100 ft/min)	272 kg (600 lbs)	363 kg (800 lbs)
High Speed	90 m/min (300 ft/min)	113 kg (250 lbs)	136 kg (300 lbs)

Table outlining the performance of the 4WNA and the 4WFA winches.

Product Dimensions

Physical	Dimensions (L x W x H)	Weight
(instrument only)	114cm x 52cm x 66cm	110kg

Technical Specifications

Motor:	1hp, SCR type.
Controller:	SCR controller, with 10 Amp current limit.
Power:	Can be supped to run on 220V or 110V.
Depth Encoder:	BEI Model H20 (200 pulses/turn).
Wireline Tolerance:	Supports Coaxial, Single and Multi- Conductor Wirelines.
Cable off-axis Tolerance:	20º left, 20º right, 15º down, 90º up.

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Cable Capacity:	1800m of 4.76mm cable.
Temperature:	-20 to 50 ºC

Gallery



Tow hitch tripod in rear of logging vehicle.



Rear of logging vehicle with integrated winch and probe rack.



Winch integrated behind the pasenger seat of a 4x4 vehicle with inverter for powering the system off the vehicle battery.



Borehole Logging work station in the back of a Toyota Hilux

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