

Mantis

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ROV Tracking Receiver

The MANTIS 820 is CDI's newest product for subsea pipeline pig tracking. The MANTIS is a deep-water ROV tie-in solution which provides all of the benefits of CDI's multi-frequency electromagnetic pig tracking in a durable and robust package. The MANTIS 820 may be purchased or rented to use along with our wide family of TRAXALL Transmitters which include eight ATEX variants.

The MANTIS 820 can track moving pigs, locate stuck pigs, or set up trip-wire to monitor for slippage or other movements of pigs. The MANTIS can detect industry-standard 22 Hz and/or two CDI TRAXALL transmission frequencies. Transmission mode may either be continuous or pulsing signal.

The MANTIS 820 system consists of a Data Processing Unit, Electromagnetic Antenna with cabling, and MANTIS User Interface software residing on a PC computer.

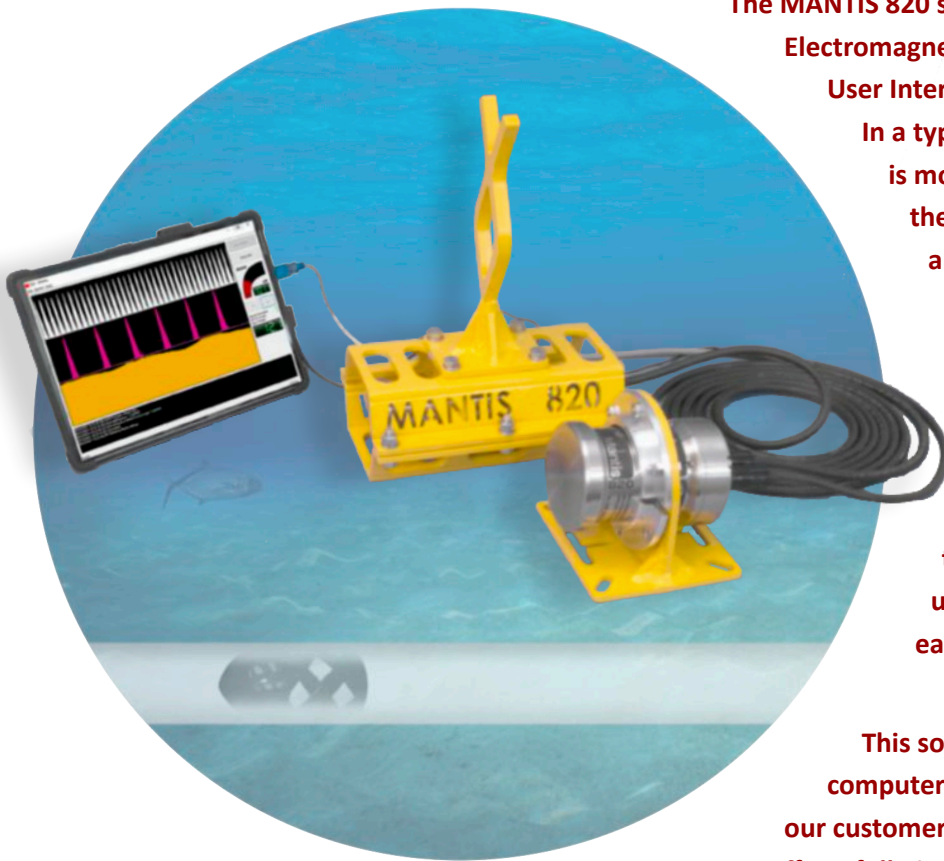
In a typical application, the data processing unit is mounted directly to an ROV chassis and the antenna secured by the ROV manipulator arm.

The RS-232 signal is routed to the multiplexer, and then to the ROV shack for decoding. Once decoded, the MANTIS User Interface software interprets the signal and then simultaneously displays up to three transmitter frequencies. This allows unique and unambiguous tracking up to three easily identifiable pigs.

This software can be run on any Windows 10 computer and is free to download. However, for our customers who wish to deploy MANTIS right away, we offer a fully-integrated and pre-tested turnkey solution:

a Microsoft® Surface Tablet pre-loaded with MANTIS software

and USB to RS-232 data conversion hardware. This system is available for purchase or rent from CDI.



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Operational Specifications

Detection Type:	Non-Intrusive Electromagnetic
Applications:	Tracking, Locating, and Pinpointing
Deployment:	Mounted to subsea ROV Antenna held in manipulator arm (typical)
Devices Detected:	Electromagnetic Transmitters (22 Hz + 2 additional TRAXALL transmitter frequencies)
Power Input:	6 VDC to 48 VDC
Power Source:	ROV
Output:	RS-232 Bi-directional Serial Data Stream
Dimensions (Housing):	5.4 in x 3.75 in [137 mm x 95 mm]
Dimensions (Antenna):	7.1 in x 2.5 in [180 mm x 63 mm]
Water Depth, Max:	9,842 ft [3,000 m]
Operating Pressure, Max:	4,388 psi [303 bar]

Construction

Housing:	304L Stainless Steel
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Optional Equipment

User Interface System:	Microsoft® Surface Tablet configured with MANTIS application software
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