

MAGTRACK Subsea cable tracking system



- Very accurate centrimetric relative 3D cable positioning
- Precise pinpointing of faults via magnetic fields and the audio frequency method
- Designed for and compatible with all existing ROVs worldwide
- Suitable for the deep sea and shallow waters
- Sensors with roll and pitch compensation
- Low power consumption
- Compact, robust and lightweight

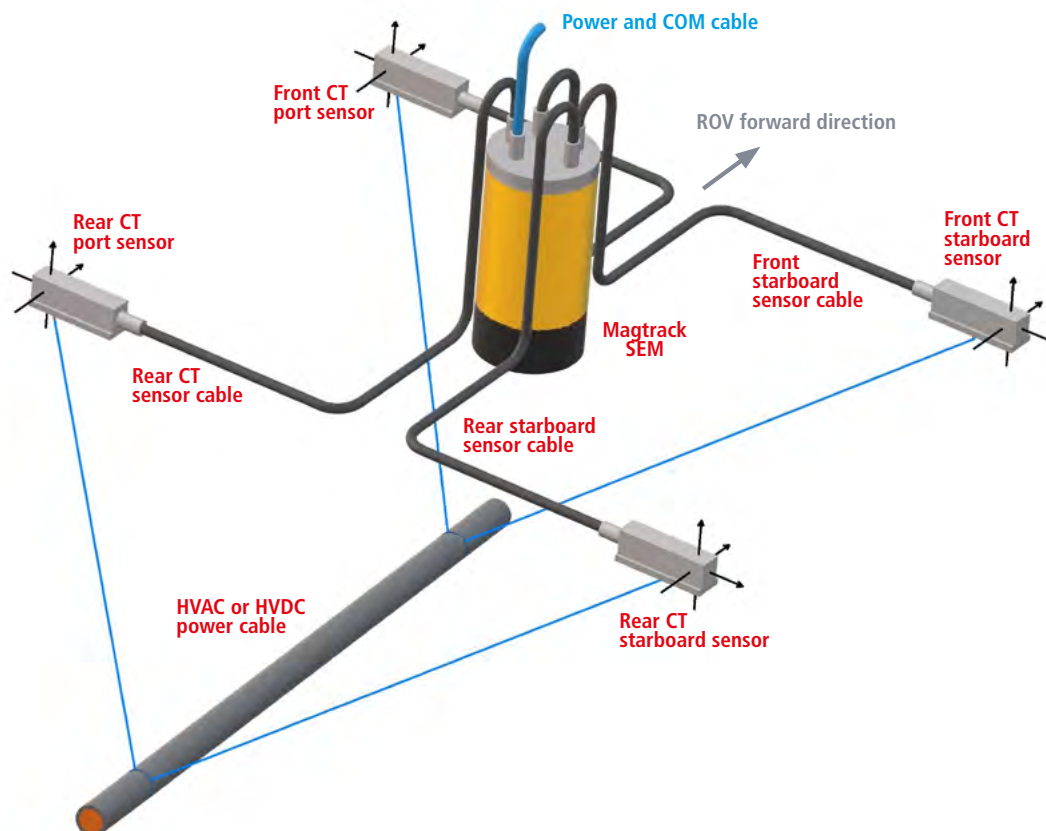
DESCRIPTION

Magtrack is a cable tracking system with 4 small sensors that integrate 3-axis fluxgate magnetometers and inclinometers. It can very accurately detect the cable position, trace the cable route and show burial depth.

It is typically installed in the front and in the rear of an ROV or a trencher which consequentially allows to also determine the slope of the cable.

The Subsea Electronics Module (SEM) is the system's hub where pre-processing of the sensor data takes place.

Both raw and pre-processed data are transferred from the ROV to the surface vessel, for example a cable-laying ship. The Magtrack data can be processed further into a survey system together with other relevant information such as seafloor profile data from echo sounding.



TECHNICAL DATA

System performance	
Detection range	HVAC or HVDC cable will be detected in vertical direction by the ROV flying above the seafloor from distances of 10 meters and more (Note: function of signal strength, greater detection range with higher signal strength)
Sufficient signal strength	Current of 1 A at audio frequency of 20...40 Hz
Sensors	
Magnetometer	3-axis fluxgate
Magnetic field resolution	2 nT single instrument
Frequency range	20...500 Hz
Inclinometer	MEMS resolution $\pm 0,1^\circ$
Material	Titanium
Dimensions (L x W x H)	200 x 66 x 46 mm
Weight	1,4 kg in the air / 1,0 kg in the water
Subsea electronics module (SEM)	
Power supply	18 ... 70 V DC
Power consumption	< 25 W
Communication	Ethernet from SEM to ROV
Material	Titanium and carbon fiber, filled with nitrogen
Dimensions (Diameter / Height)	202 mm / 425 mm
Buoyancy	Effectively neutral when fully submersed
Weight	11,6 kg in the air / 0 kg under water
Water depth	
Suitable applications	Shallow waters, e.g. ponds, lakes, near shore regions, shelf sea, continental shelf; deep sea, ocean
Depth ratings	500 m, 1500 m, and up to 6000 m
Warranty	
Standard warranty period	12 months (including parts and labour)

ORDERING INFORMATION

Product	Order no.
Magtrack 405: 500 m	1016593, standard version
Magtrack 415: 1500 m	1016594
Magtrack 460: 6000 m	1016595, upon request
Customised sensor leads for Magtrack 4xx	1016596, upon request

SCOPE OF DELIVERY

- Pelji™ case for transport and storage
- 1x SEM (subsea electronics module)
- 4x magnetometer-inclinometer sensors
- 4x signal cables (sensors to SEM)
- 1x Power and COM pigtail (between ROV and SEM)
- Software
- Service kit
- User guide



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