ELEKTRO DENİZ
Navigation & Communication Solutions

ADVANCED NAVIGATION SOLUTIONS

EDEL-EMES60

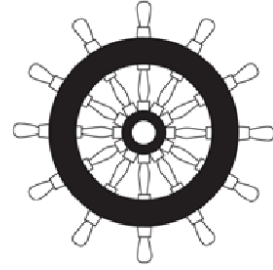**Combined Echo Sounder & Speed Log System**

Introduction

ELEKTRO DENIZ, founded in 1975 in Tophane, Istanbul, is a well- established company operating in sales, production ,service and new-building projects within the field of marine navigation and communication electronics.

As the official distributor of many globally recognized brands, we have successfully completed numerous commercial and military projects both in Turkiye and abroad.

ELEKTRO DENIZ is ISO 9001:2015 , ISO 14001 :2015, ISO IEC 27001:2022 , ISO 45001:2018 certified.

ELEKTRO DENIZ, offers innovative navigational solution EDEL-EMES60 Combined Echo Sounder and Speed Log System. This advance device transmits both speed log and echo sounder data simultaneously using a single sensor, providing easy installation and increasing operational efficiency.

All EDEL-EMES60 navigational product range are IMO Wheelmarked.

EDEL-EMES60 Combined Echo Sounder & Speed Log system

EDEL EMES60, a state-of-the-art navigation system by Elektro Deniz, offering unmatched versatility by combining an echosounder and an electromagnetic (EM) speedlog in a single, integrated unit.

IMO Compliant
One Transducer, Two Devices
Module B and D type approved
Minimizing the risk of the mechanical damage
Simplfy installations and maintanence

EDEL EMES60 apart is its configurable architecture, designed to meet diverse operational needs.
 It can be configured ;

1. Combined System (EDEL-EMES60)
  • Echo Sounder and Speed Log functions in one integrated unit
2. .Echo Sounder Only (EDEL-EMES60-ES)
  • Depth detection with a single 120kHz transducer
3. Speed Log Only (EDEL-EMES60-SL)
  • Electro Magnetic Dual Axis Speed Log (STW)

EDEL-EMES60 Benefits & Highlights

Key Benefits:

Two systems in one – Echo Sounder + Speed Log with one sensor

Easy installation & maintenance – fewer parts, less downtime

IMO Wheelmarked & fully compliant – trusted for global fleets

Cost saving – reduced equipment, wiring, and spare parts

Flexible configuration – use as Echo Sounder, Speed Log, or both

⚙ System Highlights

- Dual Functionality: Depth + Speed Through Water in one compact solution
- High Accuracy:
    - Echo Sounder: 0.05m or 0.5% of depth
    - Speed Log: 0.1kn or 1% of speed
- User-Friendly Interface:
    - 7" color touch screen, day/night modes, multilingual support
- Smart Design:
    - One transducer with gate valve installation → safer, faster, cheaper
- Future Ready:
   - Easy software upgrades via USB/Ethernet

EDEL-EMES60 Combined Echo Sounder & Speed Log System Specifications

Display Unit (separate unit for each sub-system)

Resolution	800x480, 7" WVGA
Operator interface	Touch screen, tap & swipe operation
Communication line	RS422, Optional RS232
Day/Night modes	Full range of backlight adjustment day/night color themes selection.
Software upgrade means	USB line, USB flash device, Ethernet
Supported languages	English, Norwegian, German, French, Spanish, Russian, Chinese
Calendar, clock	Real time clock support or GPS time reference.
Environmental	IP68, front panel only
Cutout dimensions	137x185mm, depth 36mm
Operating T°	-15 - +55° C (storage -20 -+60°C)
Weight	0.7kg
Compass safe distance	Standard : 65 cm, Steering 40cm

Interface Unit (separate PCB for each sub-system)
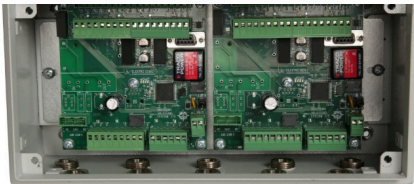
External communication line	NMEA0183 rev4, /IEC 61162-1/ 3inputs/3 outputs,
Analog	1 output, 10Vpp or 4-20mA, fully programmable
Alarm relays	2 Mechanical relays, one dedicated system power failure alarm
General purpose Input	2 digital inputs (for synchronization, slave mode), fully programmable
General purpose Output	2 optocoupler outputs, fully programmable
Software upgrade means	USB line, USB flash device, Ethernet
Environmental	IP55
Operating T°	-15-+60°
Dimensions, mm	150x300x120
Weight	4kg

Dual Sensor with Cable

Cable length	40m (optional 40m)
Communication link	IEC 61162-1/2
Environmental	IP68, 6 bar continuous immersion in water
Operating T°	-5-+60°
Sensor Dimensions	H = 124mm, D = 60.2mm
Weight (with cable)	7kg
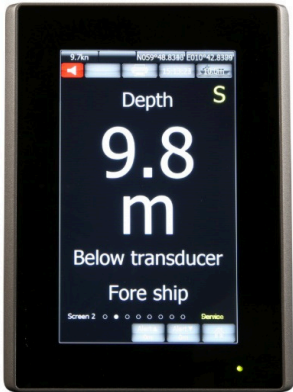
Hull fitting unit (ball valve)

Hull type	Single and double
Body material	Stainless steel
Pressure rating	10 bar
Operating T°	-5-+60°
Weight	18kg

EDEL-EMES60 Combined Echo Sounder & Speed Log System Specifications

Performance Echosounder

Accuracy	0.05m or 0.5% of depth, whatever is greater
Resolution digital out	0.01m
Resolution screen presentation	Depth < 100m : 0.1m Depth >=100m : 1.0m
Range of measured values	0.7m-400m
Range	user adjustable: 0-10m to 0-500m, auto
Presentation units	meters, feet, fathoms
Alarms and limits	Shallow and deep alarms adjustable alarms

Performance Speedlog

Accuracy	0.1kn or 1% of speed, whatever is greater
Resolution digital out	0.01knots
Resolution screen presentation	0.1knots
Range of measured values	+/- 60 knots on all axis, depending on the hull installation conditions
Temperature Accuracy	Temperature sensor accurate to 1° C
Range	-5 /+40 knots, +/-5 knots
Presentation units	knots, mi/h
Alarms and limits	Low and high speed limits
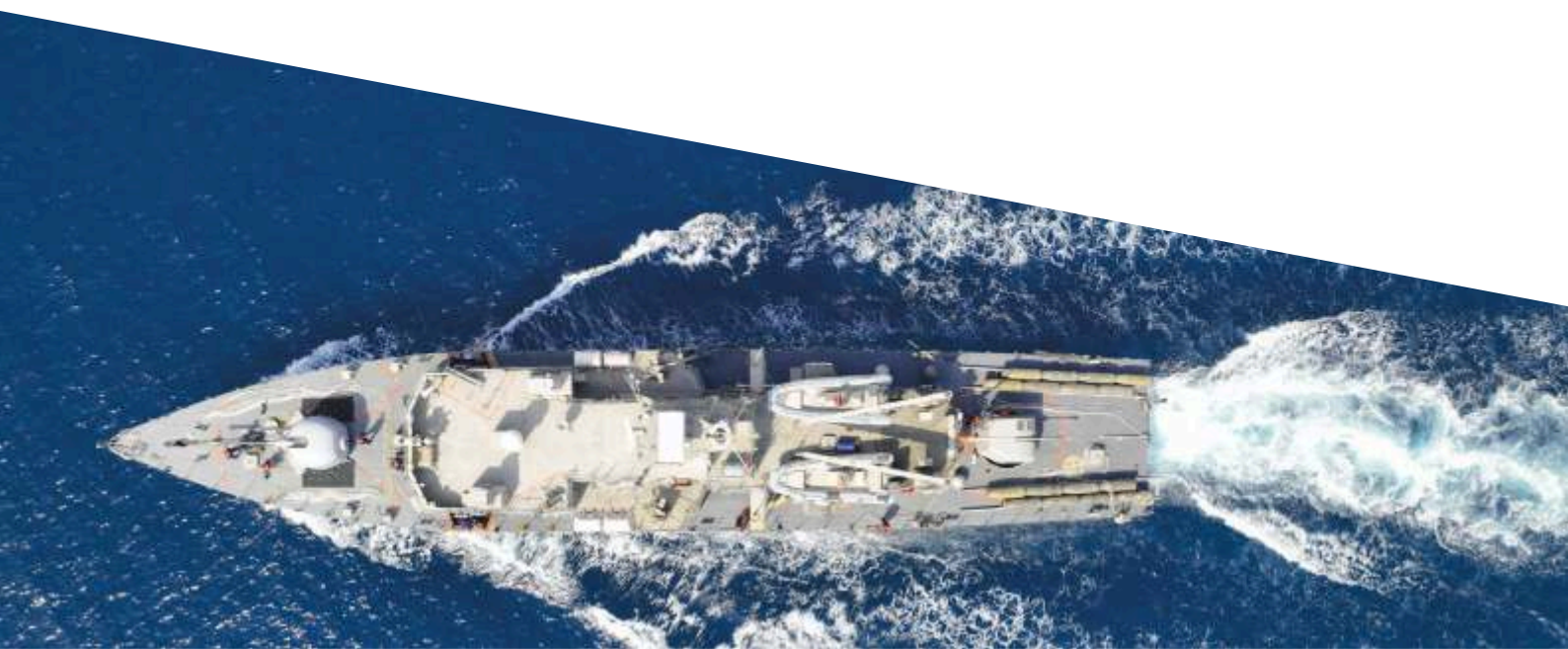
EDEL-EMES60 Combined Echo Sounder & Speed Log System Structure

EDEL EMES60
Echosounder
Display

149

202

EDEL EMES60
EM Speedlog
Display

149

202

300

EDEL EMES Dual
Universal Marine
Interface Unit

761

→ External equipment

300

EDEL EMES Dual
Power Supply And
Junction Box

761

EDEL SEA VALVE
with
Combined Sensor

853

04

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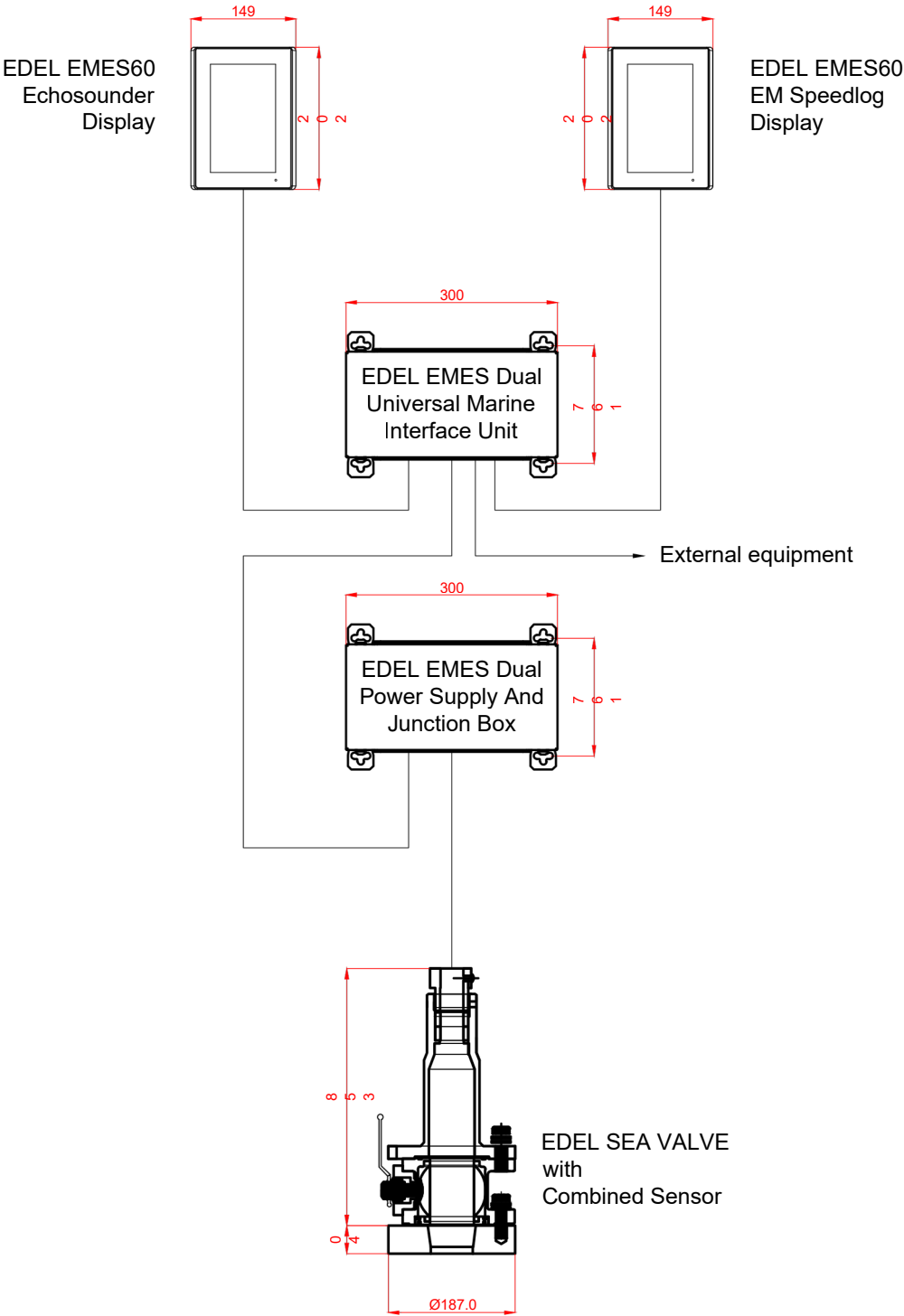
EDEL-EMES60-ES Echo Sounder

The ELEKTRO DENIZ EDEL-EMES60-ES Echosounder solution ensures high reliability and low costs as there is only one sensor with gate valve. Furthermore, using latest state technology enables depth detection of vessel.
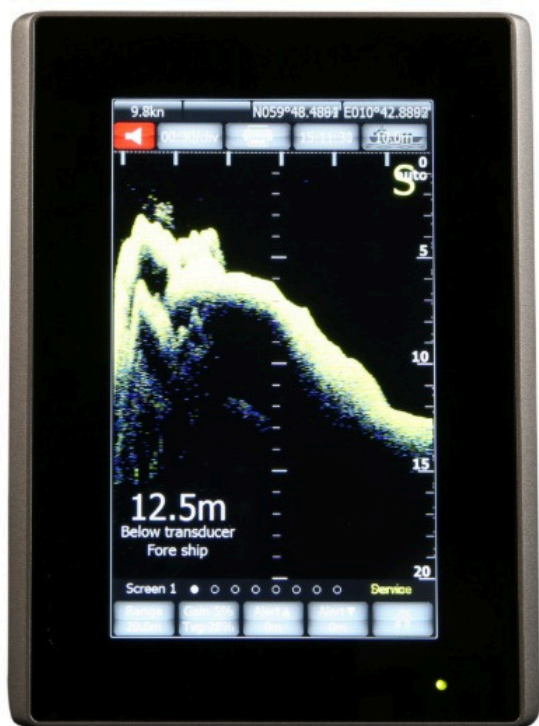
Features and Benefits

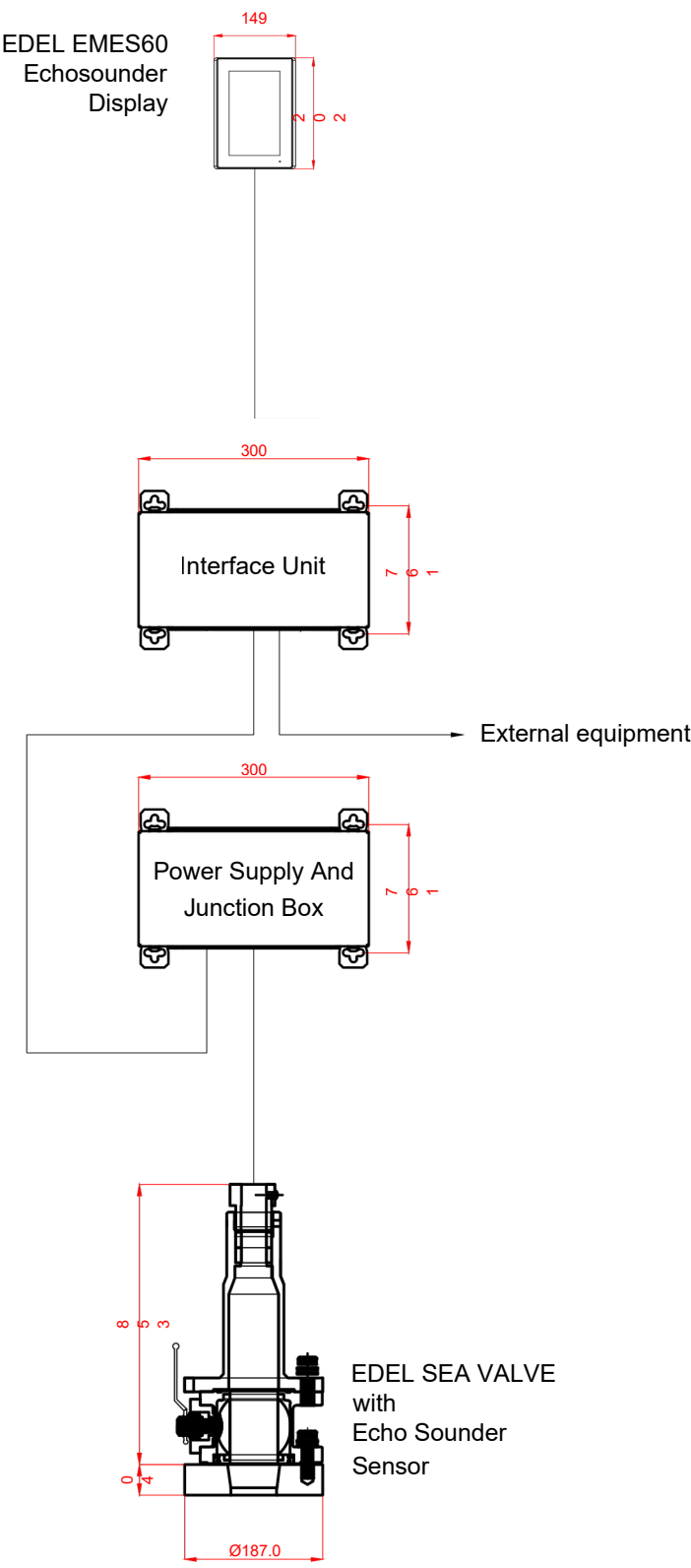| |
|---|
| Navigational Echosounder 120Khz transducer for shallow and deep water within the SOLAS limits |
| One sensor for Echosounder |
| Sea Valve Installation |
| Color 7" touch screen Displays |
| Depth Range 0.7 to 400m |

EDEL-EMES60-ES Echo Sounder System Structure

EDEL EMES60
Echosounder
Display

149

202

Interface Unit

300

761

External equipment

Power Supply And
Junction Box

300

761

853

EDEL SEA VALVE
with
Echo Sounder
Sensor

40

Ø187.0

EDEL-EMES60 -SL Electromagnetic Speed Log

The ELEKTRO DENIZ EDEL-EMES60-SL Electro Magnetic Dual AXIS Speed log solution ensures high reliability and low costs as there is only one sensor with gate valve. Furthermore, using latest state technology enables speed detection of vessel.

Features and Benefits

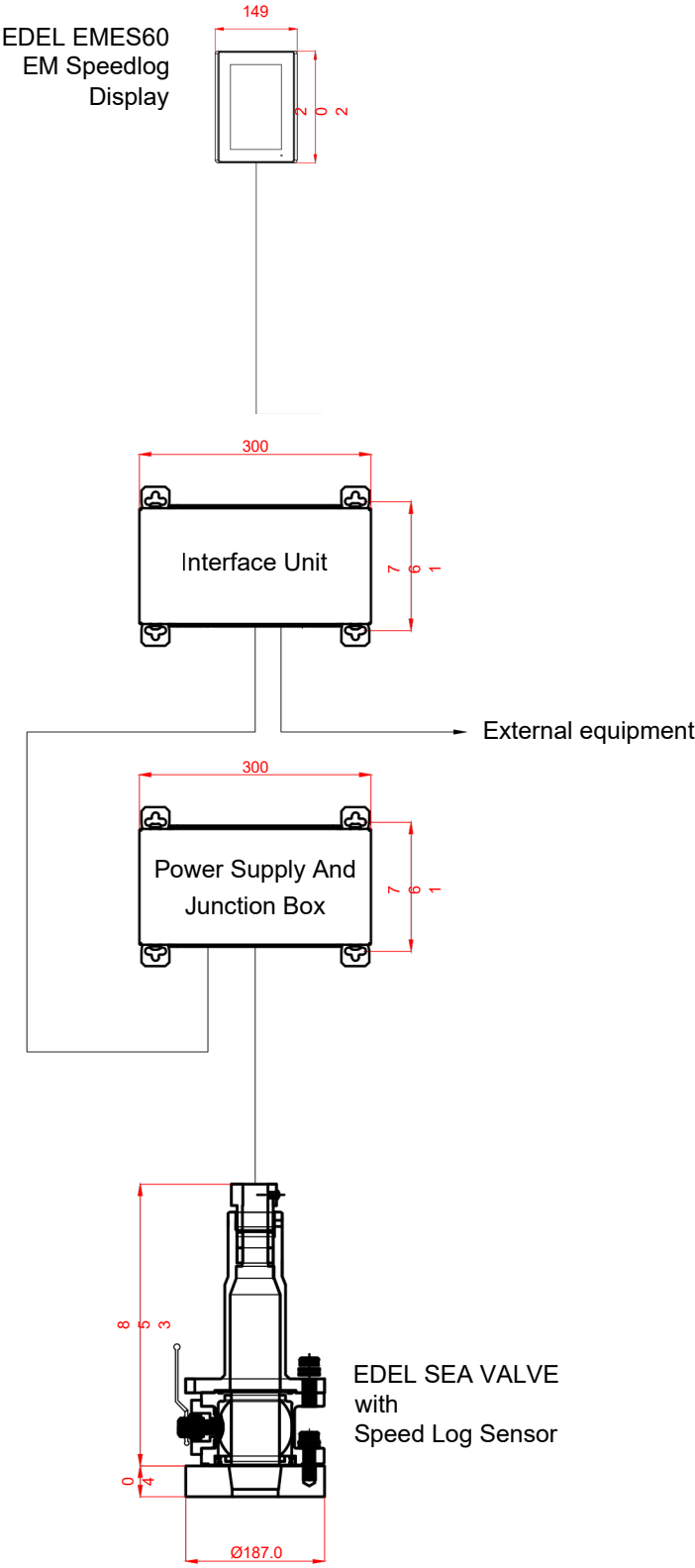One sensor for Electro Magnetic Dual Axis Speed log

STW (speed through water)

Sea Valve Installation

Color 7" touch screen Displays

Speed range -5 to +40 knots

EDEL-EMES60-SL Electromagnetic Speed Log Structure

EDEL EMES60
EM Speedlog
Display

149

202

Interface Unit

300

761

External equipment

Power Supply And
Junction Box

300

761

EDEL SEA VALVE
with
Speed Log Sensor

853

040

Ø187.0

- COMPANIES WE REPRESENT -

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SAILOR COBHAM | NINGLU | masit | COMROD | Thrane | DYNALEC | AMI MARINE

LAMBRECHT meteo | inmarsat | SkyDec | WEMPE | COBHAM | Sea Tel COBHAM | MARINE·DATA

SCAN ANTENNA | Integrated Marine Solutions Provider MRC | zenitel | AC ANTENNAS | Actisense | HENSOLDT | WINMATE

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ELEKTRO DENİZ
Navigation & Communication Solutions