



TREDAN

Analytical econometer

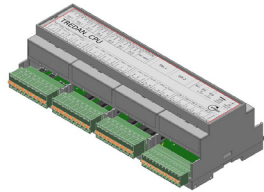
PRESENTATION

TREDAN is the standard ECOMER solution to collect, display and analyze data. Our solution has been developed to meet the shipowners decarbonation challenge with the following advantage:

- ▶ Real time consumption follow-up
- ▶ Daily ship activity report
- ▶ Decision support for short term decarbonation
- ▶ Sending data on secured cloud

Thanks to its modular design, Tredan can adapt to your hardware and software needs.

TREDAN is a modular system including a CPU module and his extension (available end of 2024) to collect and process data, supported by an HMI to display data. Additional functions can be added according to your needs: flowmeter, communication system, inertial motion unit and other on request.



FUNCTIONAL CHARACTERISTICS

TREDAN_CPU

Centralized processor insuring the processing up to 200 inputs and outputs data.

Acquisition & communication with:

- ▶ 3 x RS485 port
- ▶ 4 x CAN port
- ▶ 5 x analog input
- ▶ 5 x digital input
- ▶ 2 x Ethernet port
- ▶ 1 x USB for local data collection + upgrade

TREDAN SOFTWARE

- ▶ Correcting data
- ▶ Real-time consumption and performance curve for decision support
- ▶ Automatic phase recognition
- ▶ Daily report
- ▶ Optimized "csv" file creation to be sent to secured cloud

Note: Specific function on request

TREDAN_HMI

High resolution, color touch screen with:

- ▶ 7", 10" or 15" format
- ▶ Light dimmer & luminous indicators and integrated quick function buttons
- ▶ Protected menu with 3 access levels
- ▶ User-friendly interface:
 - ▶ Real-time consumption overview
 - ▶ Daily report
 - ▶ Maintenance & setting

Note: Customized page on request

- ▶ 1 x USB port for local data collection + upgrade

Serial communication protocol

- ▶ MODBUS RTU & TCP
- ▶ NMEA183, NMEA2000
- ▶ J1939

Note : other communication protocols can be added on request

TREDAN_EXT

Additional I/O module with:

- ▶ 3 x RS485 port
- ▶ 2 x CAN port
- ▶ 5 x analog input
- ▶ 5 x digital input
- ▶ 1 x Ethernet port



MECHANICAL CHARACTERISTICS

Dimensions (LxH) and weights

- ▶ TREDAN_CPU 210 x 119 x 58 mm 0,5 kg
- ▶ TREDAN_IHM_7 187x147x47 + 8 mm 1.5 Kg
- ▶ TREDAN_HMI_10 282x197x56 + 8 mm 2.5 kg
- ▶ TREDAN_HMI_15 422x267x56 + 8 mm 4.1 kg

Mounting

- ▶ TREDAN_HMI: Built-in mounting in console/cabinet
- ▶ TREDAN_CPU: Symmetrical DIN rail mounting
- ▶ TREDAN_EXT: Symmetrical DIN rail mounting



ELECTRICAL CHARACTERISTICS

Main power supply

- ▶ 24 Vdc (+/- 10%)

Emergency power supply

- ▶ 24 Vdc (+/- 10%)

Power supply switchover

- ▶ Automatic with alarms

Power supply protection

- ▶ By fuse 2A

Electrical connection

- ▶ Power : 1 pair 1.5 mm² max
- ▶ RS485, CAN : pairs 0.5mm² min. twisted & shielded
- ▶ AI, DI : 1 pair 0.5mm² min. twisted & shielded
- ▶ Ethernet : CAT 5E min shielded

Consumption

- ▶ Power : 2 A max
- ▶ AI : 60 mA max/AI
- ▶ DI : 40 mA max/DI

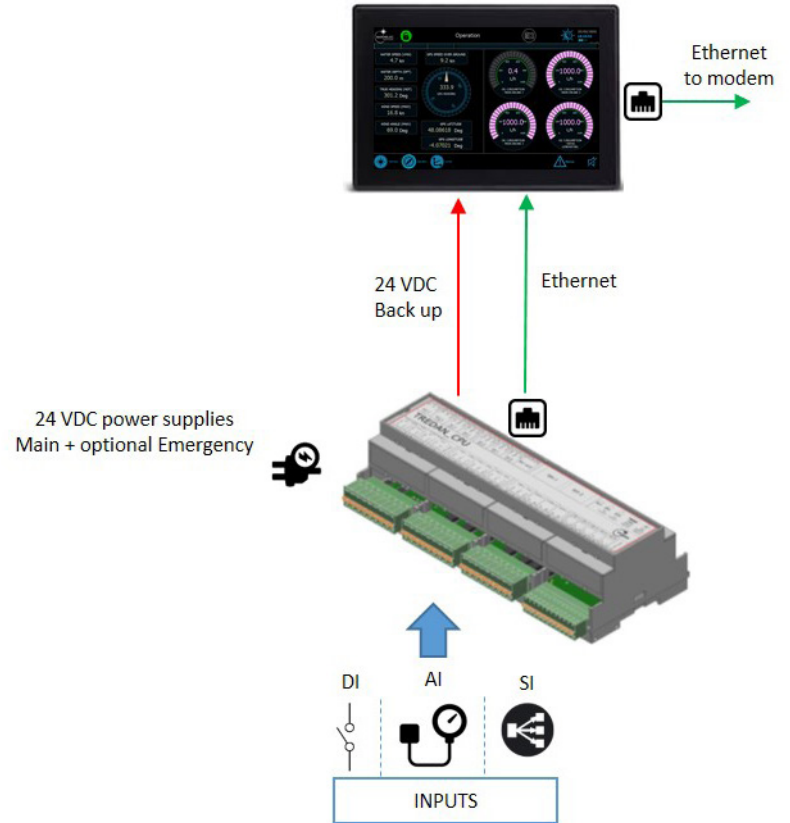
REFERENCES & OPTIONS

TREDAN_CPU: Main processor module

TREDAN_EXT: Extension module

TREDAN_HMI_7/10/15: Color touch screen interface

CONNECTION OVERVIEW



ENVIRONMENTAL CONDITIONS



Temperature limits

- ▶ +5°C to 55°C (functioning)
- ▶ 0°C to 70°C (storage)



Humidity

- ▶ 85% Humidity max.



Ingress protection rating

- ▶ TREDAN_CPU : IP20 (IP66 on option)
- ▶ TREDAN_EXT : IP20 (IP66 on option)
- ▶ TREDAN_HMI : IP66 (front) IP20 (rear)



Tel. + 33 (0)2 98 52 16 44 - Fax : + 33 (0)2 98 64 74 05 - marinelec@marinelec.com - www.marinelec.com

sail safely

