



Main Features

- ▶ Maximal flexibility and wide range of applications
- ▶ All ports are freely programmable and customer-specific applications are supported.
- ▶ Full featured MVB bus administrator.
- ▶ Up to eight RS485, up to four RS422, up to four RS232, up to two CAN and up to four Current Loop interfaces.
- ▶ duagon web server for remote diagnostics and firmware updates; possibility to implement customer-specific web pages.
- ▶ Fully compliant with IEEE 802.3, EN 50155, EN 50121, IEC 61373 and IEC 61375.

Overview

The D532 is a multi-purpose module, which supports a set of communication interfaces, including MVB, RS232, RS485, RS422, CAN and Current Loop. The combination of field bus interfaces can be configured according to the application specific requirements. A powerful 32-bit CPU enables customer-specific communication protocols and applications.

The module supports line redundant EMD and ESD+ physical layer. The MVB interface complies to the TCN standard IEC 61375 and supports devices up-to class 4 including process and message data and can act as bus administrator.

The D532 provides up to four RS485, up to two RS422 or up to two RS232 on female SUB-D connectors.

Optionally the D532 can be equipped with two additional SUB-D connectors, which provide up to two CAN interfaces, up to four RS485, up to two RS422, up to two RS232 or up to four Current Loop interfaces.

Four dedicated input pins allow geographic addressing, i.e. all modules for one project are identical in stock but perform different functions on the vehicle.

Additionally, a command-line interface and an Ethernet interface are available for maintenance and diagnostic purposes. duagon offers a webserver to access basic diagnostic data and to configure the device remotely.

Different module versions are intended to be used with nominal vehicle battery voltages from 24V to 110V.

The D532 is designed for the harsh traction environment and conforms to the EN 50121, EN 50155, and IEC 61373 standards, e.g. by:

- -40 °C to +70°C ambient temperature range
- coating against humidity
- enhanced EMI and vibration robustness

Technical Specification

PHYSICAL DATA

Fast Ethernet connector	M12, female, D-coded
MVB, Serial, Current Loop connectors	9-pin SUB-D connector
Power, Coding Pins connector	2x3-pin Phoenix connector

Maintenance port connector	2x Headers, 10-pin, Serial and JTAG
Visual indicators (LEDs)	Device status Ethernet: link, activity MVB: bus administrator, status Serial/CAN: activity
Power supply voltage range	24 Vdc to 110 Vdc

Power consumption	<10 W
Overall dimensions	60.62 × 128.5 × 171.5 mm
Weight	570 g
Ingress Protection	IP20
Operating temperature	-40 to +70°C, according to EN 50155; Class OT4
Storage temperature	-40 °C to +85 °C
Relative humidity	yearly average ≤75%, 95% for 30 consecutive days max. (EN 50155)
Useful life	20 years, according to EN 50155 Class L4

COMPLIANCE

EN 50155	Railway Applications (Electronic equipment used on rolling stock)
EN 50121-3-2	Electromagnetic compatibility rolling stock apparatus
EN 61373	Shock & Vibration
EN 45545-2	Fire protection, ≥ HL2
IEC 61375-3-4	Ethernet Consist Network (ECN)

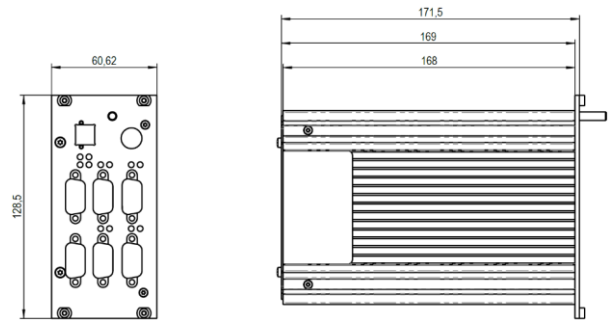
RoHS	Restriction of the Use of Certain Hazardous Substances
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals

IEEE STANDARDS

IEEE 802.3	Ethernet
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Dimensions

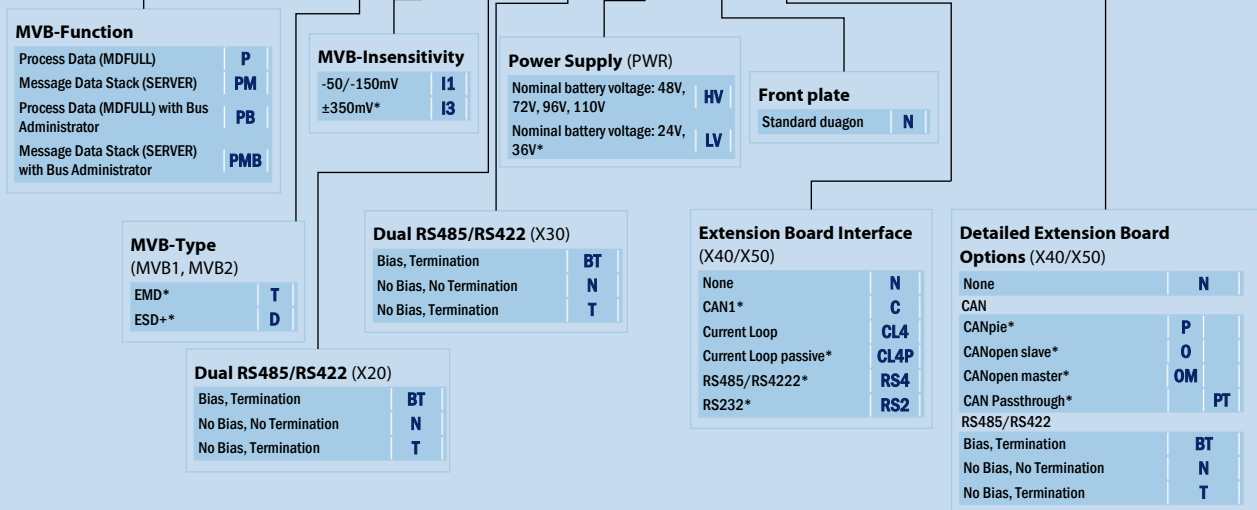
Dimensions only for reference



Front and bottom view

Ordering Information

Product: **D532** - **P** - **T** - **I1** - **BT** - **BT** - **HV** - **N** - **N** - **N** Example: **D532-P-T-I1-BT-BT-HV-N-N-N³**



¹ Requires a CAN Option

² Requires a RS485/RS422 Option

³ Default ordering options

* Contact duagon for availability and lead times

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