

ePDM 70-150

Power Distribution Controller



The **ePDM 70-150** is an electronic power distribution controller that can control a variety of loads. It has a large number of outputs up to 35 A. The controller is designed to meet the requirements of a modern vehicle and, in addition to powering the loads, allows also the integration of numerous diagnostic functions. With ePDM 70-150, different wake-up scenarios can be implemented. The „Always-ON“ outputs provide power to modules, such as a telematics module, even when the ePDM is switched off.

The controller communicates via CAN bus and is fully programmable. The WEcontrol Designer provides a powerful programming environment. For system protection, e.g. against open load or overcurrent, you can implement diagnostic functions and configure the outputs using “fuse-like” function blocks.

Functions and Features

- Main power distribution, allowing the complete shutdown of the vehicle sections
- Power supply to the majority of simple loads, some larger loads or groups of loads
- Powering telematics or access control devices via „Always ON“ outputs, which also supply power in sleep mode
- Handling of vehicle wake-up scenarios
- Communication possible over its two CAN interfaces
- Freely programmable using WEcontrol Designer, logic processing of vehicle functions based on IEC 61131-3 programming environment

Benefits

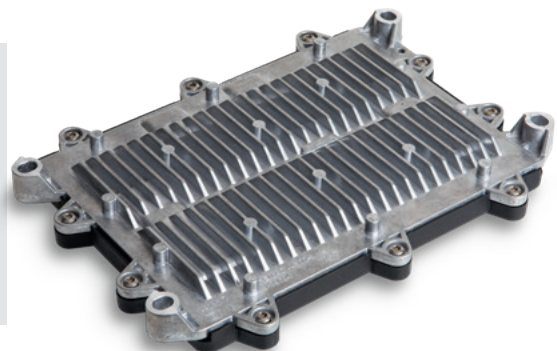
- Harness gauge optimisation through precise current control
- Development costs usually limited to software creation
- Load reduction on other ECUs by taking over control of multiple loads
- Simplification of service work due to available diagnostic options
- Easy integration, no hardware access required
- Easy software update using the UDS protocol

General information

Operating temperature	-30 °C to +85 °C
Operating range	9 to 16 V
Processor	NXP S32K Cortex M4 32 bit
Max. current @70°C	150 A nominal, 200 A short term
Clock frequency	80 MHz
Flash memory	2 MB
RAM	256 kB
FRAM	2 kB
Ingress protection	IP67 / IP69K
Dimensions	240 x 180 x 50 mm

Interfaces, inputs and outputs

2	CAN interfaces
1	Reference voltage 5 V, max. 200 mA / switchable
3	Analog inputs 0 – 5 V
4	Analog inputs 0 – 16 V
2	Analog inputs 0 – 10 V or 4 – 20 mA
3	Digital inputs low active (2 of them wake-up inputs)
7	Digital inputs high active (2 of them wake-up inputs)
3	Frequency inputs up to 20 KHz
4	Digital outputs „Always ON“(2 x 3 A; 2 x 6 A)
2	Digital outputs 300 mA (sinking outputs)
10	Digital outputs 3 A
10	Digital outputs 6 A
8	Digital outputs 9 A
3	Digital outputs 35 A
1	Full bridge 4 A



Programming with WEcontrol Designer

WEcontrol Designer is the advanced programming environment from Würth Elektronik ICS. The set of powerful text and graphical editors for IEC-61131-3 languages supports the following programming types:

- Sequential Flow Chart (SFC)
- Function Block Diagram (FBD)
- Ladder Diagram (LD)
- Structured Text (ST)

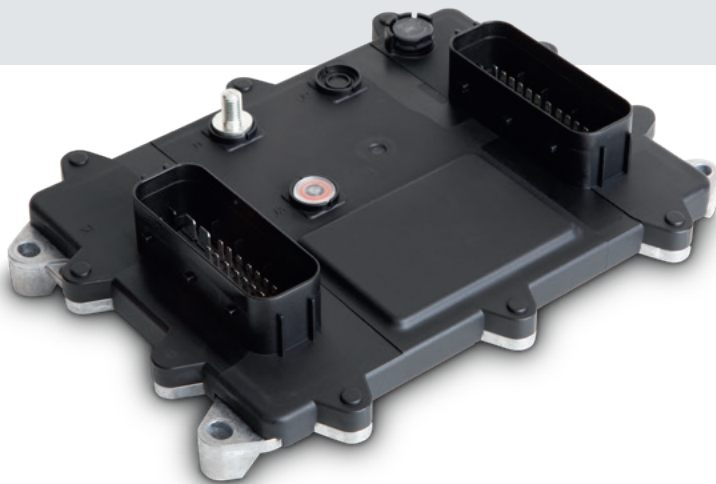


The WEcontrol Designer also offers a wide range of features such as:

- Optimised application creation
- Simulation and online data access / modification via CAN bus
- Automated language conversion
- User Defined Function Blocks (UDFB) for specific / repetitive functions
- Graphical I/O mapping and configuration
- Automated HTML project documentation
- Import of CAN communication database from Vector and Peak systems
- Easy creation of graphical debug interfaces (based on the application)

WEcontrol Designer Try & Buy Kit

Use our WEcontrol Designer software development tool and Try & Buy Kit to independently program the functions you want to use.



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