12 V | 24 V

REDLINE POWER BOX MEDIUM

Standard version

The **REDline Power Box Medium** is a compact solution for power supply, protection and control of optional functions in vehicles.

It allows you to:

- Reduce the size of the central electrical unit
- Reduce the complexity of the wiring harness
- Save space in the vehicle, thanks to decentralised positioning

Standard version of the product is presented on the first three pages of this document. Customisation of the box content can be realised according to your requirements. Refer to page 4 and contact us for more information.

The advantages of our REDline Power Boxes summarised:

- **Robust & durable:** Thanks to high IP levels and cable harness reduction
- **Fast project processing:** Due to a broad range of standardised housings and a structured and established product development process
- **High economic efficiency:** Resulting from simplified installation and maintenance as well as low tooling and engineering costs
- **Convincing service concept:** We support you from the first idea up to serial production of your tailor-made solution and beyond
- **Compact & modular architecture:** Thanks to the modular building block system, the customer-specific configurable PCB and the efficient use of space

Mechanical data	
Box dimensions	167 x 142 x 74 mm
PCB area for component placement	80 x 70 mm
Operating temperature	-40 °C up to +85 °C
IP protection class	IP64
Specifics	Compression limiter

Electrical data	
Power inputs	1 x M6 Powerelement 1 x M8 Powerelement
Connector	LeavySeal 31-pin
Components	8 x MINI fuses 3 x ATO fuses 1 x MAXI fuse 3 x Micro relays 1 x Power relay

Mating connectors			
Pins	**Coding**	**Standard**	**VO Material**
31	E	1-1564297-6	1-2208685-6

This item is a standard product, please consider the relevant datasheet notes. The user is responsible for the product's functionality in its purposed system environment. Technical content may be modified and changed by Würth Elektronik ICS GmbH & Co. KG without any notice.

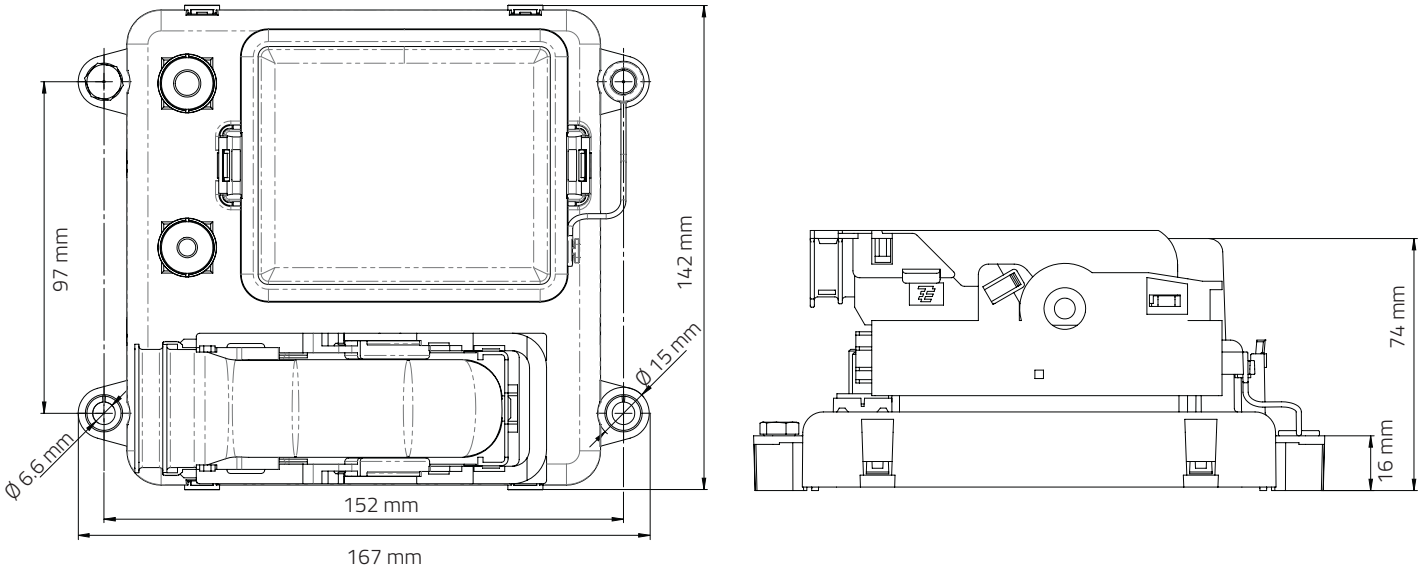
Qualification		
Test methods	**Qualification norm**	**Descriptions**
IP protection class	ISO-20653	IP64
High temperature soak	ISO 16750-4	+95 °C
Temperature cycle	ISO 16750-4	-40 °C / +105 °C
Temperature shock	ISO 16750-4	Temperature: -40 °C to +95 °C 100 cycles of 6 h
Humidity soak	ISO 16750-4	1 cycle of 240 h
Humidity icing cycle	ISO 16750-4	Relative humidity: 96 % Temperature: -40 °C to +95 °C
Mechanical shock	DIN EN 60068-2-27 / ISO 16750-3	Various test parameters
Chemical test	ISO 16750-5	AA, AB, BA, BC, BD, BE, CC, CD, DF, EA, DJ, YY

Torque fixing point	
Compatibility	Up to ISO class 10.9 screws

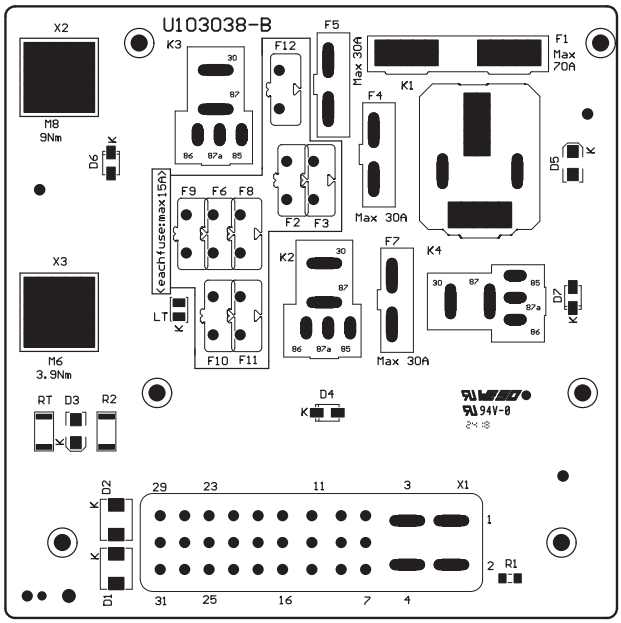
Torque electric connection	
M6	3.9 Nm
M8	8.0 Nm

Order Information	
REDline Power Box Mdium Standard	
Unequipped (without fuses and relays)	ICS-103038
Equipped with 12 V fuses and relays	ICS-103038-12V
Equipped with 24 V fuses and relays	ICS-103038-24V

Box dimensions



PCB silkscreen

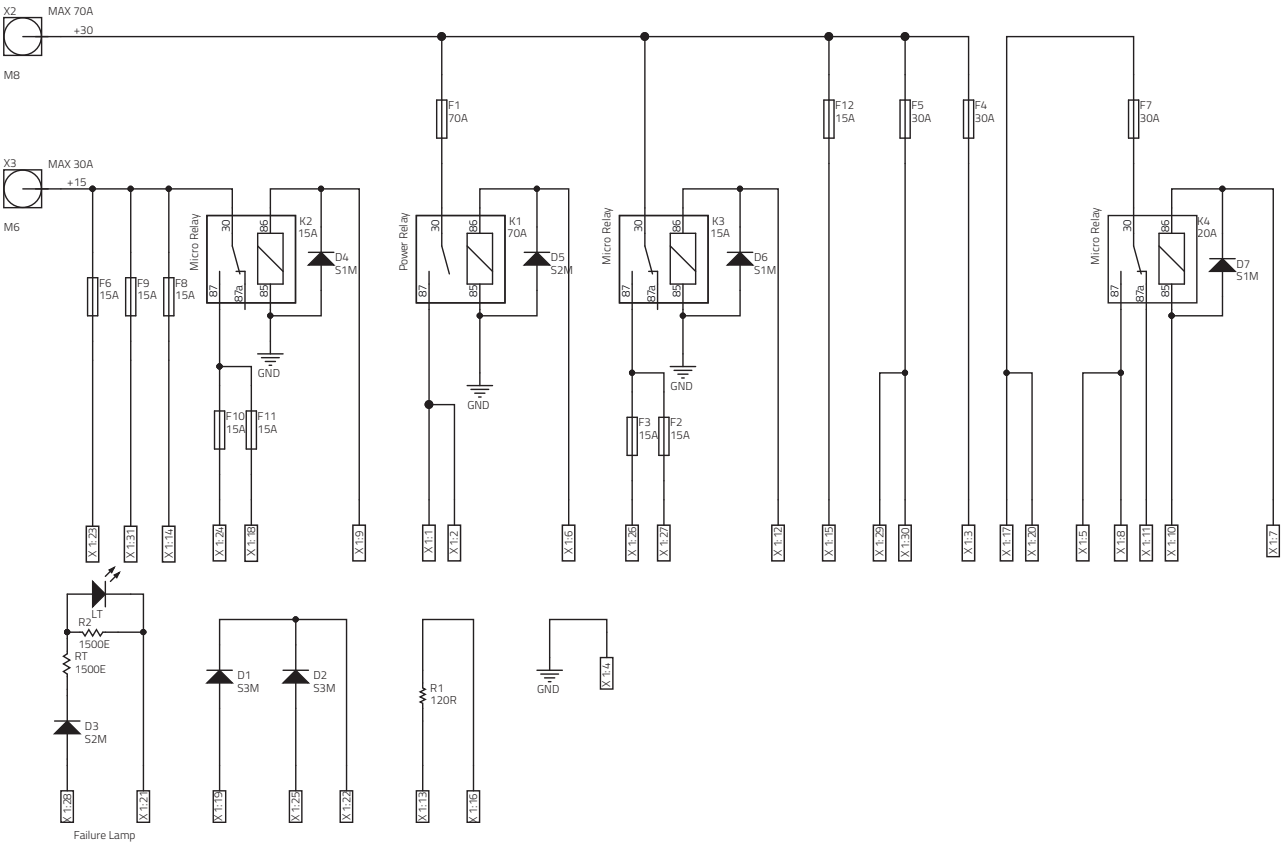


Pin assignment

X1 connector	
Pin	Description
1	K1_87_1 17 F7_1
2	K1_87_2 18 F11
3	F4 19 D1
4	GND 20 F7_2
5	K4_87_1 21 LED_LT
6	K1_86 22 D1 + D2
7	K4_86 23 F6
8	K4_87_2 24 F10
9	K2_86 25 D2
10	K4_85 26 F3
11	K4_87a 27 F2
12	K3_86 28 D3
13	R1_2 29 F5_1
14	F8 30 F5_2
15	F12 31 F9
16	R1_1

X1 connector	
Pin	Description
17	F7_1
18	F11
19	D1
20	F7_2
21	LED_LT
22	D1 + D2
23	F6
24	F10
25	D2
26	F3
27	F2
28	D3
29	F5_1
30	F5_2
31	F9

Electrical schematic



Do you want to customise the REDline Power Box Medium content according to your needs? With the following three steps, we help you to get your tailor-made solution.

1 Choose desired inputs and outputs according to your electrical schematic

Inputs / Outputs
Threaded: M5, M6 or M8
Radlok™: 3.6, 5.7 or 8
LED indicator
Closed input

Compatible connectors			
Pins	Coding	Standard	V0 Material
31	E	1-1564297-6	1-2208685-6
39	E	5-1718321-3	5-2208684-3

2 Select the components to be integrated and get the PCB designed according to your electrical schematic

3 Choose your additional component options

Component options
Cover leash
Fuse tester
Fuse puller
Component sticker
Component on lid

Profit from different standard box variants and component options for advanced functions and requirements.

Box variants			
	Part number WE ICS		
Description	Unequipped (without fuses and relays)	Equipped with 12 V fuses and relays	Equipped with 24 V fuses and relays
REDline Twin Standard	ICS-103040	ICS-103040-12V	ICS-103040-24V
REDline Hybrid Standard	ICS-103037	ICS-103037-12V	ICS-103037-24V
REDline M Plus Standard	ICS-103263	ICS-103263-12V	ICS-103263-24V
REDline Medium Standard	ICS-103038	ICS-103038-12V	ICS-103038-24V
REDline Mini Standard	ICS-103039	ICS-103039-12V	ICS-103039-24V
REDline 6F Standard	ICS-104012	ICS-104010	ICS-104011

Are you looking for a box with special requirements?
No problem, just contact us! We develop your customer-specific product according to the motto: more than you expect. From the idea through to the start of serial production.

Twin

Hybrid

M Plus

Medium

Mini

6F

For more information write us an e-mail **ics@we-online.com**, call **+49 7940 9810-0** or visit us at **www.we-online.com/ics**

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