

# REDline Power Box Medium

## Standard version



## REDline Power Box Medium

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 dimensions	80 x 70 mm
Operating temperature	-40 °C up to +85 °C
IP protection class	IP64
Specifics	Compression limiter

### ELECTRICAL DATA

Power input	M8: +BATT up to 100 A M6: IGN up to 50 A
Connectors	LeavySeal 31-pin
Mating connector	31-pin: TE 1-2208685-6 (UL94 V0) 31-pin: TE 1-1564297-6
Components	8 x Mini fuse 3 x ATO fuse 1 x 60 A Maxi fuse 3 x Micro relay 1 x Power relay

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.



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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

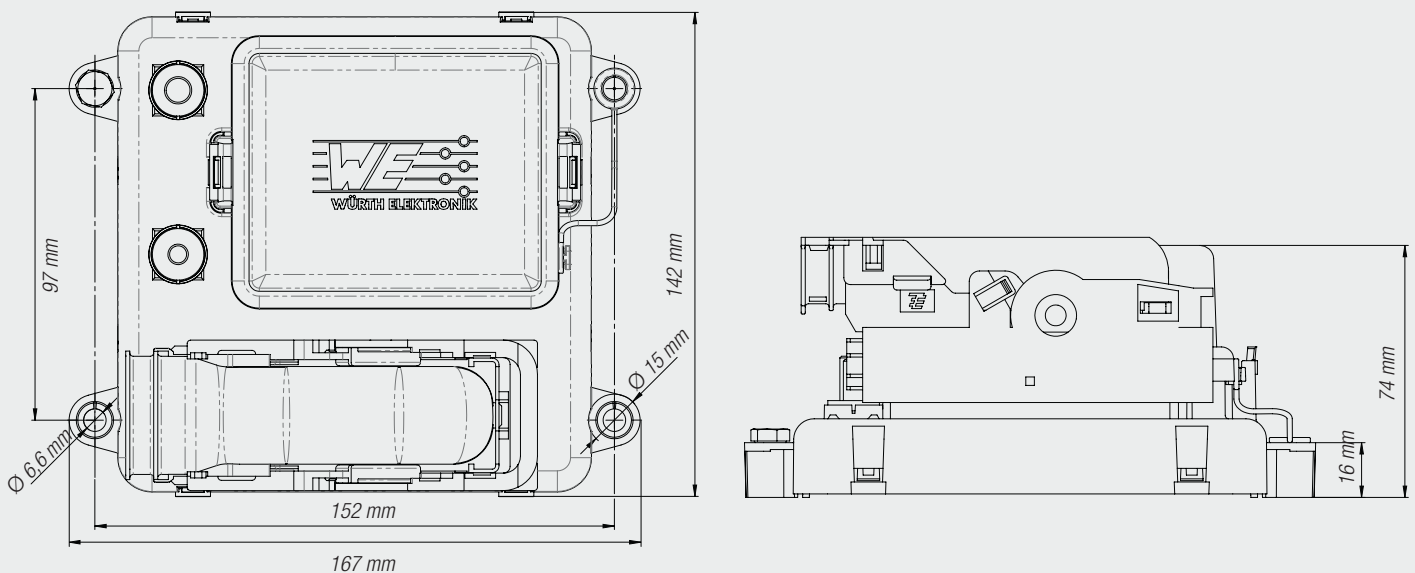
TORQUE FIXING POINT	
Compatibility	Up to ISO class 10.9 screws

TORQUE ELECTRIC CONNECTION	
M6	3.9 Nm
M8	8.0 Nm

ORDER INFORMATION	
REDline Power Box Medium 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



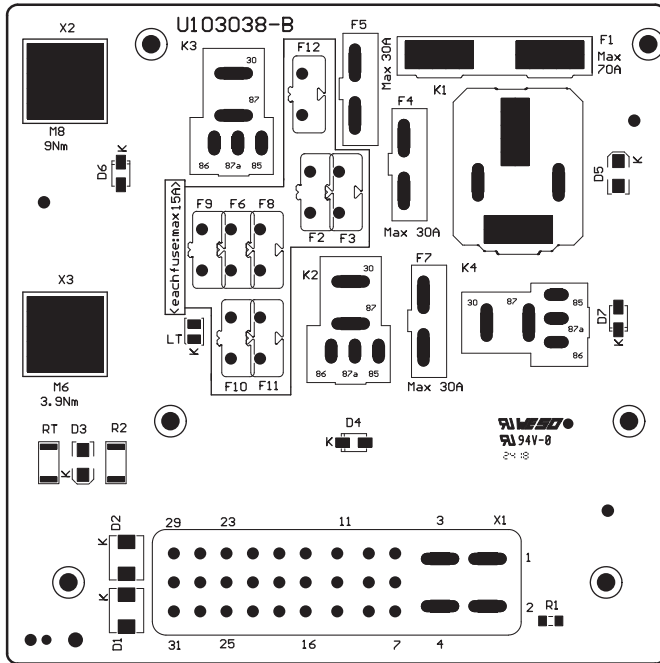
## Box dimensions



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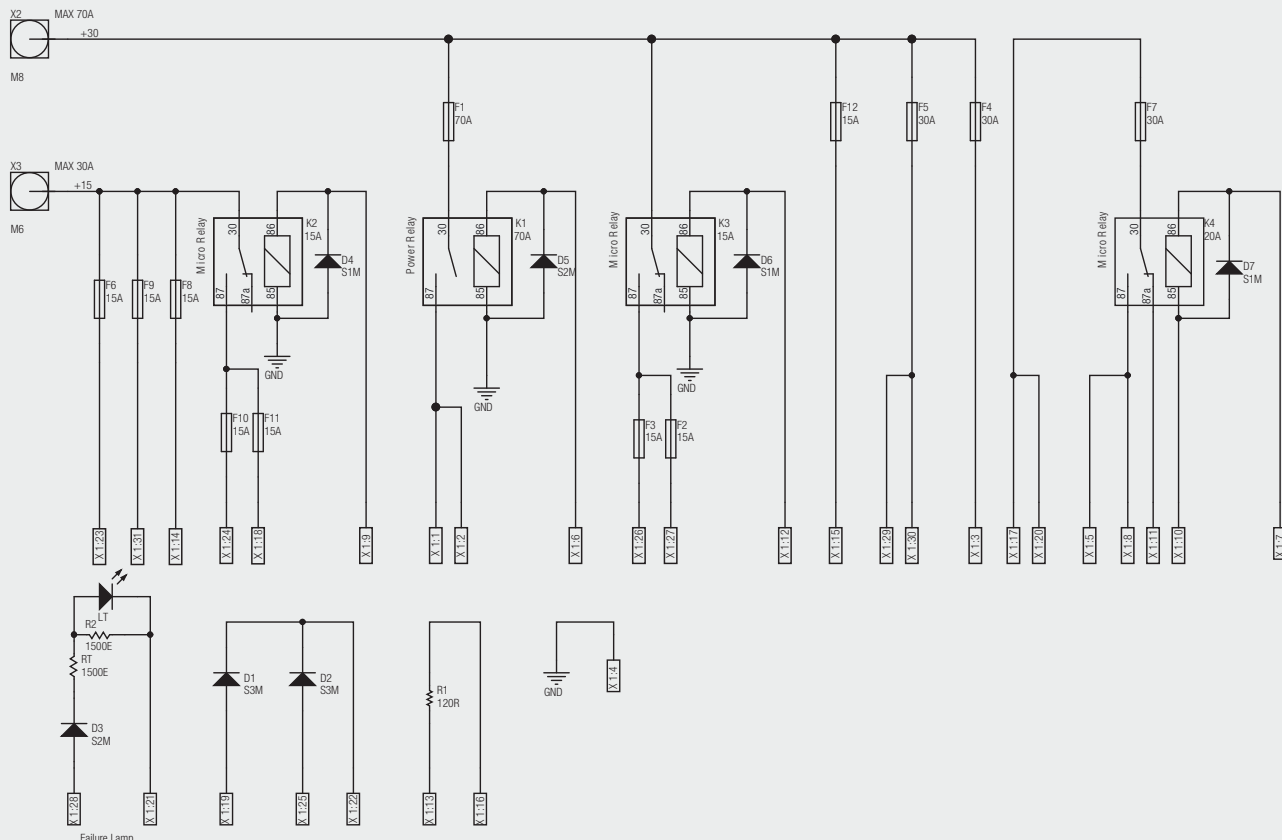
## PCB silkscreen



## Pin assignment

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

## Electrical schematic





# REDline Power Boxes

## Customisation possibilities

### 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 schematics

INPUTS / OUTPUTS
M5 or Radlok 3.6
M6 or Radlok 5.7 up to 120 A
M8 or Radlok 8 up to 200 A
No element
Light guide

COMPATIBLE CONNECTORS	
31-pin – V0 Material	TE 1-2208685-6
31-pin	TE 1-1564297-6
39 pin – V0 Material	TE 5-2208684-3
39-pin	TE 6-2208684-3

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

**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

### 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.

For more information visit us at [www.we-online.com/ics](http://www.we-online.com/ics) or call +49 7940 9810-0



Twin



Hybrid



M Plus



Medium



Mini

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