

ABW 24-12-7H



Trailer light converter with reversing lamp



Converter to supply the lights of 12V trailers at 24V car line, including reversing lamp. Incandescent lamps and suitable RMS compatible LEDs can be operated. Please ask the LED lamp manufacturer for RMS compatibility. For further details please see our handout "LED lamps in RMS operation".

- * **quick and simple to connect:**
 - at rear lamps of car-like equipment
 - parallel to 24V socket
 - instead of 24V socket
- * **function of G2-indicator-lamps of all flasher units is guaranteed**
- * **works well with lamp-control-units**
- * **correct function of ABS-info-module is guaranteed**
- * **solid casting - waterproof and shockproof**
- * **internal short circuit and overload protection**
- * **power reserves in case of additional lamps at the trailer**

input voltage:

24V DC nominal (18 ... 33V)

output voltage:

RMS power equation for 12V
(9 ... 15.5V)

output power:

2 x 21W + 5 x 60W

current without load:

0mA with open output
(no current)

connections:

input and output cables are
solidly sealed

cable length:

input: 100cm
output: 120cm

dimensions:

200 x 65 x 25mm without
cable outlet

mechanical protection:

solid casting

electrical protection:

overload current (self-
resetting) overtemperature
(self-resetting)

temperature range:

-40 ... +75°C

efficiency:

flasher unit c. 90%, other
parts c. 95%

mass:

c. 960g

Attention!

for bulbs and RMS - LEDs
only!

Order Info:

ABW 24-12-7H

Installation manual

trailer light converter ABW 24-12-7H



Requirements:

1. The converter is only suitable for the operation of incandescent bulbs and RMS-LEDs *1).
2. The installing locality mustn't be exposed to splash water (de-icing salt risk).
3. The installing locality must show air circulation (no wrapping in insulating material!).
4. All connections have to be made very carefully. Insulated crimp connections have to be pressed together adequately, insulation displacement connectors have to be used according to cable size.

Installation:

1. All wires must be dead before tapping.
2. Fixing of the converter with delivered M4-screws.
3. First of all make connection to ground (31), then connection of the seven lines in parallel to the loom of cables of the trailer. The cables have to be connected as follows. Input and output are of the same colour. **Rear lamp left and rear lamp right may never be connected!**

Funktion	Function	code	Farbe/colour
Masse	Ground	31	weiß/white
Blinker links	Flasher left	L	gelb/yellow
Blinker rechts	Flasher right	R	grün/green
Schlussleuchte links	Rear lamp left	58L	schwarz/black
Schlussleuchte rechts	Rear lamp right	58R	braun/brown
Bremsleuchte	Stop light	54	rot/red
Nebelschlussleuchte	Rear fog lamp	54g	blau/blue
Rückfahrleuchte	Reversing lamp	..	violett/violet

4. Socket test lamp for functional testing.

Special case:

For the replacement of a damaged original converter in a DB UNIMOG also the second converter must be removed. Please ask for replacement instruction.

Disturbances:

The short circuit protecting device prevents the blowing of series fuses. When the short circuit is eliminated, the converter automatically resets itself after disconnection of the input. In case of overheating (e.g. accumulation of heat caused by covering) the converter could heat itself to a point where the power of the bulbs is taken down. After cooling, full power is available again. So the converter doesn't get out of order.

Voltage measuring with normal multimeters is only conditionally possible.

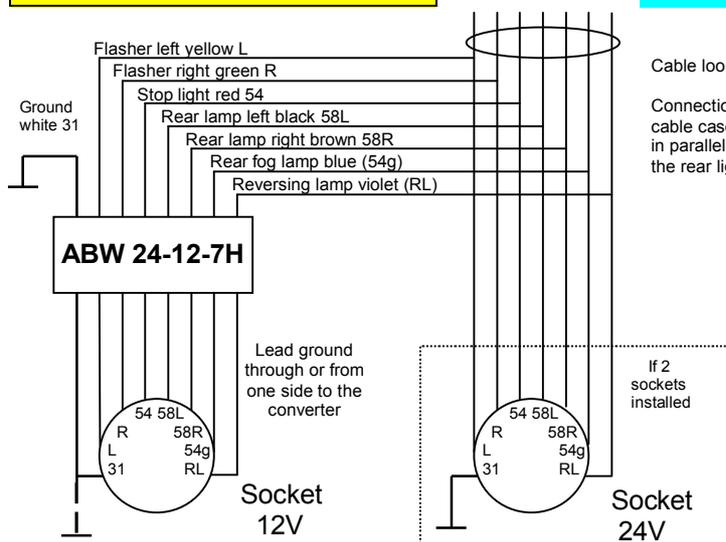
Because of the special converter principle (RMS-power converter), such a meter only indicates about a quarter of the input voltage at all lines (basic load 5W) except the flashing units where the voltage is indicated nearly exactly (basic load 21W). For details, please see testing instruction.

Notes:

*1) RMS-LEDs are working with internal series resistors or other suitable techniques. If reduction of light intensity occurs in RMS pulse operation the reduction must remain within the light intensity limits of the ECE regulations (R6, R7, R23, R38). If series resistor technology is used, light intensity reduction of 20% to 35% must be expected. The nominal light intensity of the LED lamp unit for 12V operation is mentioned in the manufacturer's ECE approval.

Caution! ISO -Colours

For measuring a basic load of 5W/21W required!



Cable loom

Connection in cable case or in parallel to the rear lights

Technical data:

Maximum load: flasher 2x21W, other lines 60W each
 Efficiency: flasher ab. 90%, other lines ab. 95%
 Dimensions: 200 x 70 x 25mm without cable outlet
 Mounting hole distance: 185mm,
 Weight: 960g



ABW 24-12-6H

ABW 24-12-7H

