



**VDL RENA ELECTRONICA**

**90519062**

Bits2Power® 4 CHANNEL PWM DRIVER EXTERNAL POWERED

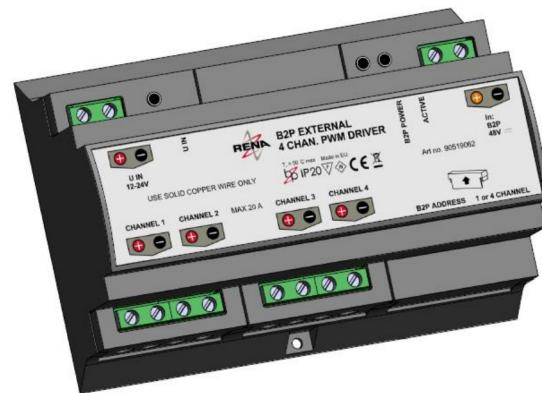
#### Product description

- 4 Channel PWM driver
- External powered
- 0 – 100% dimming
- Thermal protection
- 3 Year Warranty
- CE certified
- IP20

#### Applied Standards

EN55022

EN55024, EN61000-4-2, 3, 4, 5, 6, 11



#### Technical notes

Dimensions	161x110x62mm
Weight	220 gr.
Housing	Polycarbonate
Color	White

#### Electrical Characteristics

Input voltage range External ①	12 ... 24Vdc
Input voltage range B2P	24 ... 48Vdc
Output voltage range	12 ... 24Vdc
Output current max	20A
Switching losses max	5%
Output dimming range④	0 – 100%

#### Ordering data

Type	Article number
4-channel Separator	90519062

① Tolerance of 5%

② Nominal output voltage is # of LEDs x LED forward voltage

③ Tolerances of 5% and for each circuit

④ Percentage of PWM duty-cycle

⑤ Common Positive system

#### Protections

Undervoltage lockout (B2P input)	@ Vin < 18Vdc
Output Short circuit protection	Output current limit
Reversed polarity	Positive ⇔ Negative
Overheating protection	70°C Output derating

#### Connections

Input voltage	Connector	AWG26- AWG10
Input voltage external	Connector	AWG26- AWG10
Outputs (x4)	Connector	AWG26- AWG10
All connectors have a Tightening torque of 5.3 lb-in max.		



## Technical details

Model	90519062		
Output	Number of channels	4	
	DC voltage Range	12 ... 24	V
	Maximum total current	20 <sup>⑦</sup>	A
	Maximum rated channel current	10 <sup>⑧</sup>	A
	Voltage tolerance	±5	%
Input	PWM frequency	920	Hz
	DC voltage Range	12 ... 24	V
	External		
	DC voltage Range B2P	24 ... 48	V
	Standby Power	1,5	mW

## All Models

Protection	Short Circuit	Recovers automatically after removing short
	Over Current	B2P input protected by unrecoverable fuse
	Over Voltage	External input protected by derating the output current <sup>⑦</sup>
Safety & EMC	Over Temperature	70°C (Output derating)
	Withstand Voltage	I/P-O/P: 0,5kV
	Isolation Resistance	I/P-FG: >100MΩ / 500VDC / 25°C / 70% RH
EMI	EMI	EN55022 (CISPR22)
	EMS IMMUNITY	EN55024, EN61000-4-2, 3, 4, 5, 6, 11

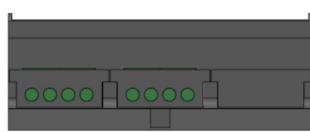
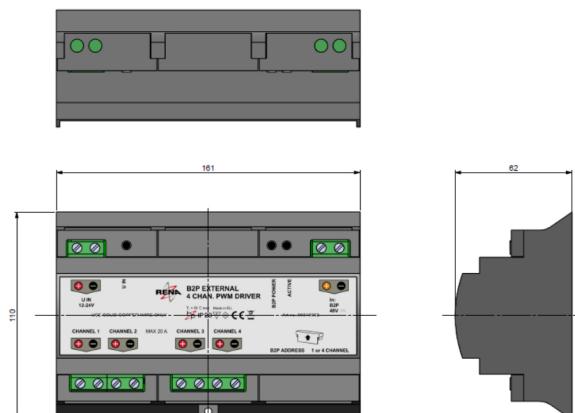
<sup>⑦</sup> Maximum total output current is limited to 20A. Loads above 20A will be derated to maintain the 20A maximum output current limit. Product is specified in conjunction with the Mean Well DRP-480-24 AC-DC PSU. When a non-current limited PSU such as lead-acid batteries are used as the 24V supply, an external in-line fuse is mandatory. See 'Installation and safety information' for further information.

<sup>⑧</sup> Maximum output current per channel is limited to 10A, given that load is pure resistive and not capacitive or inductive. Maximum total output current is limited to 20A.

## Mechanical Dimensions

Overall dimensions

L = 161 x W = 110 mm  
Height = 62 mm



## Thermal Characteristics

The LED driver must operate under proper environmental conditions and the operating ambient air temperature must NOT exceed the maximum given temperature.

For an optimal lifetime performance the LED driver must be placed in an environment where a sufficient heat transport is guaranteed.

The heat transport is done by natural convection. It's not recommended to expose the module to direct sunlight or any other heat source.

## Environmental characteristics

Storage temperature	-20 / +70°C
Operating temperature	-20 / +50°C
Operating humidity	10-80% RH
IP classification	IP20

## Tc point

For an optimal lifetime performance the Tc point of the device must never exceed [ ⑤ ] degrees Celsius.

The maximum value must be determined under operating conditions in a thermally stable state and under worst-case conditions for the current application

## Installation and Safety Information

Installation must be carried out under observation of the relevant regulations and standards. The following advice must be followed:

### Please ensure correct voltage and polarity of the leads

- See PDC600 controller manual for system installation details.
  - The device contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken.
  - Use wire size of minimum AWG 20 for connecting the B2P device.
  - For outdoor or damp locations, be aware of the IP classification.
- All above specifications must be met in order to qualify for the 3 year warranty.

When a non-current limited PSU such as lead-acid batteries are used as the 24V supply, an external in-line fuse such as the Littlefuse FHAC0002LXN with an ATO 25A cartridge is mandatory.

## Packaging

Box size (mm)	370x170x125 mm
Quantity each Box	4
Quantity each layer	4
Layer each box	1
Weight each box (kg)	2,1 kg

