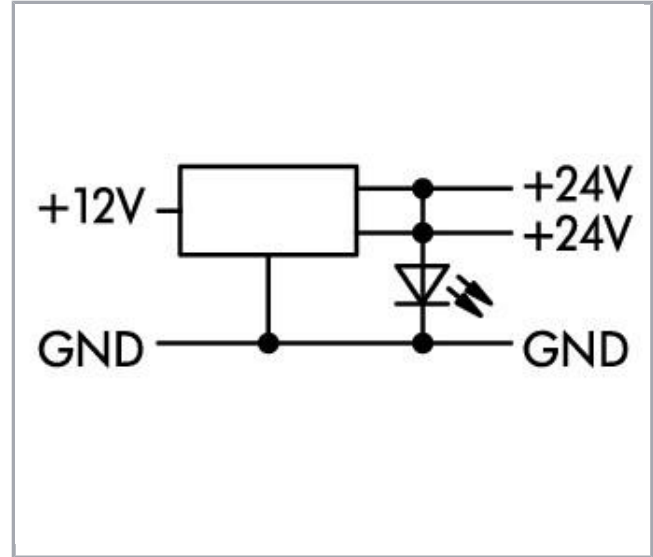
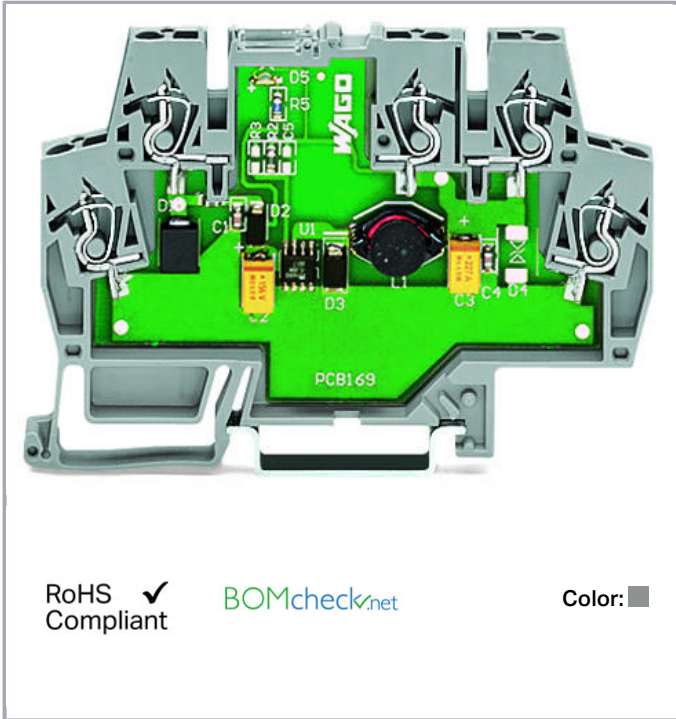


**Data sheet | Item number: 859-804**

DC/DC Converter; 12 VDC input voltage; 24 VDC output voltage; 0.25 A output current; 2,50 mm<sup>2</sup>; gray

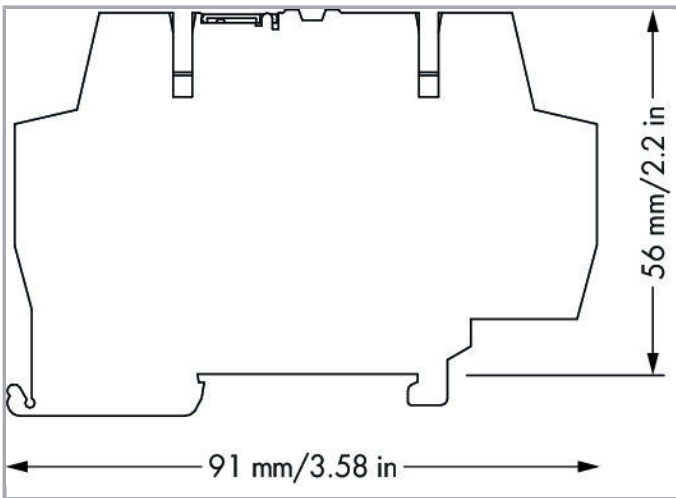
[www.wago.com/859-804](http://www.wago.com/859-804)



RoHS  Compliant

[BOMcheck.net](https://www.bomcheck.net)

Color: ■



**Data**  
**Technical Data**

Subject to changes.

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## Input

|  |               |
|--|---------------|
| Nominal input voltage $U_{i\text{ nom}}$ | DC 12 V       |
| Input voltage range                      | DC 8 ... 16 V |
| Nominal mains frequency range            | 0 Hz          |
| Mains failure hold-up time               | $\geq 0.5$ ms |

## Output

|   |                   |
|---|-------------------|
| Nominal output voltage $U_{o\text{ nom}}$ | DC 24 V           |
| Output voltage range                      | $\pm 1$ %         |
| Nominal output current $I_{o\text{ nom}}$ | 0.25 A            |
| Line regulation                           | $\leq 0.5$ %      |
| Mains/load regulation                     | $\leq 0.5$ %      |
| Residual ripple                           | $\leq 40$ mV      |
| Switching frequency                       | 1.2 MHz (nominal) |
| Overload behavior                         | Fuse              |

## Signaling and communication

|           |         |
|-----------|---------|
| Signaling | 1 x LED |
|-----------|---------|

## Efficiency/Power losses:

|                   |      |
|-------------------|------|
| Efficiency (typ.) | 83 % |
|-------------------|------|

## Fuse protection:

|               |           |
|---------------|-----------|
| Internal fuse | TVS diode |
|---------------|-----------|

## Safety and protection:

|                            |                     |
|----------------------------|---------------------|
| Protection class           | III                 |
| Protection class           | IP20 (per EN 60529) |
| Reverse voltage protection | yes                 |
| Series connection          | No                  |

## Connection data

|                        |             |
|------------------------|-------------|
| Number of jumper slots | 2           |
| Connection technology  | CAGE CLAMP® |

Subject to changes.



|                         |  |
|-------------------------|--|
| WAGO terminal           | WAGO 859 Series                              |
| Solid conductor         | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Fine-stranded conductor | 0.08 ... 2.5 mm <sup>2</sup> / 28 ... 14 AWG |
| Strip length            | 5 ... 6 mm / 0.2 ... 0.24 inch               |

### Geometrical Data

|                                       |                    |
|---------------------------------------|--------------------|
| Width                                 | 6 mm / 0.236 inch  |
| Height from upper-edge of DIN-35 rail | 56 mm / 2.205 inch |
| Depth                                 | 91 mm / 3.583 inch |

### Mechanical data

|                  |                        |
|------------------|------------------------|
| Type of mounting | DIN-35 rail (EN 60715) |
|------------------|------------------------|

### Material Data

|           |          |
|-----------|----------|
| Color     | gray     |
| Fire load | 0.455 MJ |
| Weight    | 36.3 g   |

### Environmental Requirements

|   |               |
|---|---------------|
| Surrounding air (operating) temperature | -25 ... 55 °C |
| Pollution degree                        | 2             |

### Standards and specifications

|                    |    |
|--------------------|----|
| Conformity marking | CE |
|--------------------|----|

### Commercial data

|                    |                           |
|--------------------|---------------------------|
| Product Group      | 6 (Interface Electronics) |
| Packaging type     | BOX                       |
| Country of origin  | US                        |
| GTIN               | 4050821017479             |
| Customs Tariff No. | 85044082900               |

### Compatible products

Subject to changes.

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## End plate

**Item no.: 859-525**

End and intermediate plate; 1 mm thick; gray

[www.wago.com/859-525](http://www.wago.com/859-525)

## Marking accessories

**Item no.: 2009-145**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white

[www.wago.com/2009-145](http://www.wago.com/2009-145)**Item no.: 2009-145/000-002**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

[www.wago.com/2009-145/000-002](http://www.wago.com/2009-145/000-002)**Item no.: 2009-145/000-005**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white /000-005

[www.wago.com/2009-145/000-005](http://www.wago.com/2009-145/000-005)**Item no.: 2009-145/000-006**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white /000-006

[www.wago.com/2009-145/000-006](http://www.wago.com/2009-145/000-006)**Item no.: 2009-145/000-007**

Mini-WSB Inline; for Smart Printer; on reel; stretchable 5 - 5.2 mm; plain; snap-on type; gray

[www.wago.com/2009-145/000-007](http://www.wago.com/2009-145/000-007)**Item no.: 2009-145/000-012**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white /000-012

[www.wago.com/2009-145/000-012](http://www.wago.com/2009-145/000-012)**Item no.: 2009-145/000-023**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white /000-023

[www.wago.com/2009-145/000-023](http://www.wago.com/2009-145/000-023)**Item no.: 2009-145/000-024**

Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white /000-024

[www.wago.com/2009-145/000-024](http://www.wago.com/2009-145/000-024)**Item no.: 210-110**

Fiber-tip pen

[www.wago.com/210-110](http://www.wago.com/210-110)**Item no.: 248-501**

Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card

[www.wago.com/248-501](http://www.wago.com/248-501)**Item no.: 248-501/000-002**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow

[www.wago.com/248-501/000-002](http://www.wago.com/248-501/000-002)**Item no.: 248-501/000-005**

Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red

[www.wago.com/248-501/000-005](http://www.wago.com/248-501/000-005)

Subject to changes.

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**Item no.: 248-501/000-006**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue

[www.wago.com/248-501/000-006](http://www.wago.com/248-501/000-006)



**Item no.: 248-501/000-007**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray

[www.wago.com/248-501/000-007](http://www.wago.com/248-501/000-007)



**Item no.: 248-501/000-012**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange

[www.wago.com/248-501/000-012](http://www.wago.com/248-501/000-012)



**Item no.: 248-501/000-017**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green

[www.wago.com/248-501/000-017](http://www.wago.com/248-501/000-017)



**Item no.: 248-501/000-023**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green

[www.wago.com/248-501/000-023](http://www.wago.com/248-501/000-023)



**Item no.: 248-501/000-024**  
Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet

[www.wago.com/248-501/000-024](http://www.wago.com/248-501/000-024)



**Item no.: 248-502**  
Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-502](http://www.wago.com/248-502)



**Item no.: 248-502/000-024**  
Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; violet

[www.wago.com/248-502/000-024](http://www.wago.com/248-502/000-024)



**Item no.: 248-503**  
Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-503](http://www.wago.com/248-503)



**Item no.: 248-503/000-024**  
Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; violet

[www.wago.com/248-503/000-024](http://www.wago.com/248-503/000-024)



**Item no.: 248-504/000-024**  
Mini-WSB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; violet

[www.wago.com/248-504/000-024](http://www.wago.com/248-504/000-024)



**Item no.: 248-505/000-024**  
Mini-WSB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; violet

[www.wago.com/248-505/000-024](http://www.wago.com/248-505/000-024)



**Item no.: 248-506**  
Mini-WSB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white

[www.wago.com/248-506](http://www.wago.com/248-506)



**Item no.: 793-501**  
WMB marking card; as card; not stretchable; plain; snap-on type; white

[www.wago.com/793-501](http://www.wago.com/793-501)

Subject to changes.



**Item no.: 793-501/000-002**  
WMB marking card; as card; not stretchable; plain; snap-on type; yellow

[www.wago.com/793-501/000-002](http://www.wago.com/793-501/000-002)



**Item no.: 793-501/000-005**  
WMB marking card; as card; not stretchable; plain; snap-on type; red

[www.wago.com/793-501/000-005](http://www.wago.com/793-501/000-005)



**Item no.: 793-501/000-006**  
WMB marking card; as card; not stretchable; plain; snap-on type; blue

[www.wago.com/793-501/000-006](http://www.wago.com/793-501/000-006)



**Item no.: 793-501/000-007**  
WMB marking card; as card; not stretchable; plain; snap-on type; gray

[www.wago.com/793-501/000-007](http://www.wago.com/793-501/000-007)



**Item no.: 793-501/000-012**  
WMB marking card; as card; not stretchable; plain; snap-on type; orange

[www.wago.com/793-501/000-012](http://www.wago.com/793-501/000-012)



**Item no.: 793-501/000-017**  
WMB marking card; as card; not stretchable; plain; snap-on type; light green

[www.wago.com/793-501/000-017](http://www.wago.com/793-501/000-017)



**Item no.: 793-501/000-023**  
WMB marking card; as card; not stretchable; plain; snap-on type; green

[www.wago.com/793-501/000-023](http://www.wago.com/793-501/000-023)



**Item no.: 793-501/000-024**  
WMB marking card; as card; not stretchable; plain; snap-on type; violet

[www.wago.com/793-501/000-024](http://www.wago.com/793-501/000-024)



**Item no.: 793-5501**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; white

[www.wago.com/793-5501](http://www.wago.com/793-5501)



**Item no.: 793-5501/000-002**  
WMB marking card; as card; for terminal block width 5 - 17.5 mm; stretchable 5 - 5.2 mm; plain; snap-on type; yellow

[www.wago.com/793-5501/000-002](http://www.wago.com/793-5501/000-002)



**Item no.: 793-5501/000-005**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; red

[www.wago.com/793-5501/000-005](http://www.wago.com/793-5501/000-005)



**Item no.: 793-5501/000-006**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; blue

[www.wago.com/793-5501/000-006](http://www.wago.com/793-5501/000-006)



**Item no.: 793-5501/000-007**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; gray

[www.wago.com/793-5501/000-007](http://www.wago.com/793-5501/000-007)



**Item no.: 793-5501/000-012**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; orange

[www.wago.com/793-5501/000-012](http://www.wago.com/793-5501/000-012)

Subject to changes.



**Item no.: 793-5501/000-017**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; light green

[www.wago.com/793-5501/000-017](http://www.wago.com/793-5501/000-017)



**Item no.: 793-5501/000-023**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; green

[www.wago.com/793-5501/000-023](http://www.wago.com/793-5501/000-023)



**Item no.: 793-5501/000-024**  
WMB marking card; as card; stretchable 5 - 5.2 mm; plain; snap-on type; violet

[www.wago.com/793-5501/000-024](http://www.wago.com/793-5501/000-024)

#### tools



**Item no.: 210-720**  
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft

[www.wago.com/210-720](http://www.wago.com/210-720)

#### ferrule



**Item no.: 216-221**  
Ferrule; Sleeve for 0.5 mm<sup>2</sup> / 20 AWG; insulated; electro-tin plated; white

[www.wago.com/216-221](http://www.wago.com/216-221)



**Item no.: 216-222**  
Ferrule; Sleeve for 0.75 mm<sup>2</sup> / 18 AWG; insulated; electro-tin plated; gray

[www.wago.com/216-222](http://www.wago.com/216-222)



**Item no.: 216-223**  
Ferrule; Sleeve for 1 mm<sup>2</sup> / AWG 18; insulated; electro-tin plated; red

[www.wago.com/216-223](http://www.wago.com/216-223)



**Item no.: 216-224**  
Ferrule; Sleeve for 1.5 mm<sup>2</sup> / AWG 16; insulated; electro-tin plated; black

[www.wago.com/216-224](http://www.wago.com/216-224)

**Item no.: 216-321**  
Ferrule; Sleeve for 0.25 mm<sup>2</sup> / AWG 24; insulated; electro-tin plated; yellow

[www.wago.com/216-321](http://www.wago.com/216-321)



**Item no.: 216-322**  
Ferrule; Sleeve for 0.34 mm<sup>2</sup> / 22 AWG; insulated; electro-tin plated; green

[www.wago.com/216-322](http://www.wago.com/216-322)

## Downloads

### Documentation

#### Instruction Leaflet

DC/DC-Wandler

pdf  
68.8 kB

Download

#### Additional Information

Disposal; Electrical and electronic equipment, Packaging

V 1.0.0

pdf  
265.8 kB

Download

Subject to changes.



## CAD/CAE-Data

### CAD data

| 2D/3D Models 859-804 | URL | Download |
|----------------------|-----|----------|
|----------------------|-----|----------|

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### CAE data

|                           |  |          |
|---------------------------|--|----------|
| EPLAN Data Portal 859-804 |  | Download |
|---------------------------|--|----------|

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|                        |  |          |
|------------------------|--|----------|
| WSCAD Universe 859-804 |  | Download |
|------------------------|--|----------|

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## Installation Notes

Subject to changes.