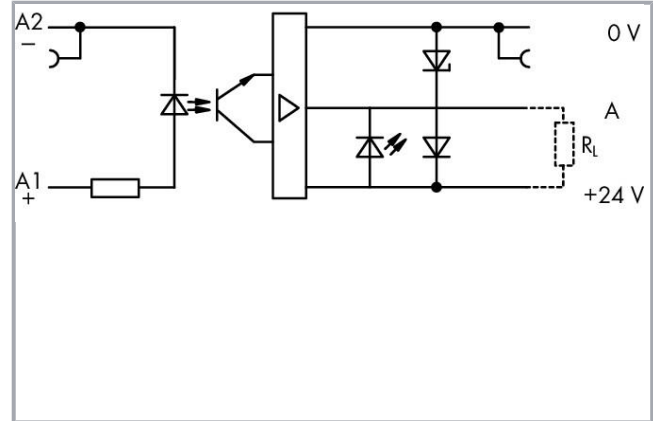
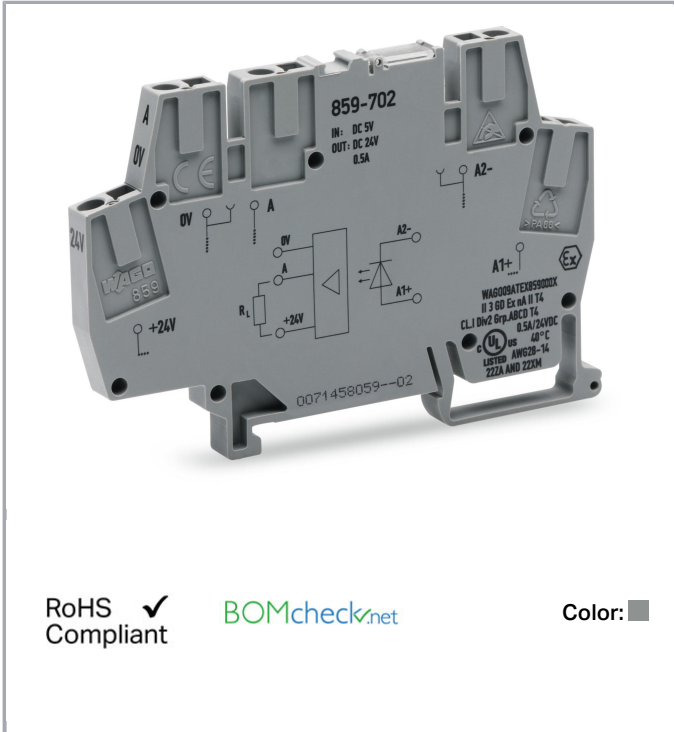


Data sheet | Item number: 859-702

Optocoupler module; Nominal input voltage: 5 VDC; Output voltage range: 0 ... 24 VDC; Limiting continuous current: 0.5 A; Frequency: 10 kHz; Module width: 6 mm; gray



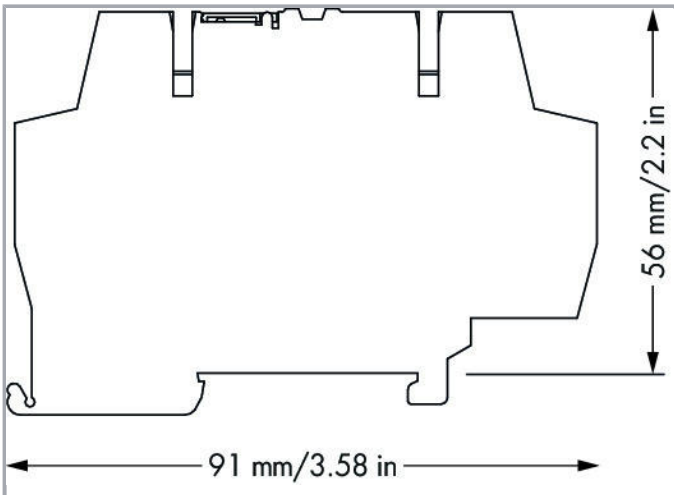
www.wago.com/859-702



RoHS Compliant ✓

BOMcheck.net

Color: ■



Item description

Note:

Subject to changes. Please also observe the further product documentation!

WAGO Kontakttechnik GmbH & Co. KG
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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.

Optocouplers and solid state relays are designed for use in signal processing networks, which are not supplied by the low-voltage power supply networks.

Data

Technical Data

Control circuit

| | |
|----------------------------------|-----------------|
| Nominal input voltage U_N | DC 5 V |
| Input voltage range (low level) | DC 0 ... 1 V |
| Input voltage range (high level) | DC 4 ... 6,25 V |
| Nominal input current at U_N | 9,6 mA |

Load circuit:

| | |
|------------------------------------|---|
| Circuit type | 3-wire connection Low-side switching |
| Limiting continuous current | 0,5 A |
| Nominal output voltage | DC 24 V |
| Output voltage range | DC 20 ... 30 V |
| Max. voltage drop at output | ≤ DC 1,2 V |
| Leakage current at nominal voltage | ≤ 10 μ A |
| Max. output (reverse current) | 11 mA |
| Turn-on time | ≤ 7 μ s |
| Drop-out time | ≤ 15 μ s |
| Switching frequency | ≤ 10 kHz |

Signaling

| | |
|-------------------|---------|
| Status indication | Red LED |
|-------------------|---------|

Safety and protection:

| | |
|---|--|
| Rated voltage | 300 V |
| Overvoltage category | II |
| Pollution degree | 2 |
| Dielectric strength, control/load circuit (AC, 1 min) | 2,5 kVrms |
| Insulation type (control/load circuit) | Basic insulation |
| Insulation type (adjacent devices) | Reinforced insulation (safe isolation) |

Subject to changes. Please also observe the further product documentation!



Connection data

| | |
|-------------------------|--|
| Connection technology | CAGE CLAMP® |
| Solid conductor | 0,08 ... 2,5 mm ² / 28 ... 14 AWG |
| Fine-stranded conductor | 0,08 ... 2,5 mm ² / 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 |
|------------------|-------------|

Material Data

| | |
|-----------|----------|
| Color | gray |
| Fire load | 0.313 MJ |
| Weight | 18.3 g |

Environmental Requirements

| | |
|---|----------------|
| Surrounding air (operating) temperature at U _N | -25 ... 55 °C |
| Surrounding air (storage) temperature | -40 ... 70 °C |
| Processing temperature | -25 ... +50 °C |

Standards and specifications

| | |
|--------------------------|--|
| Standards/specifications | EN 60664-1; EN 61000-6-2; EN 61000-6-3; EN 61373; UL 508 |
|--------------------------|--|

Commercial data

| | |
|--------------------|---------------------------|
| Product Group | 6 (Interface Electronics) |
| Packaging type | BOX |
| Country of origin | DE |
| GTIN | 4055143604673 |
| Customs Tariff No. | 85365005000 |


Subject to changes. Please also observe the further product documentation!

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Approvals / Certificates








UL-Approvals

| Logo | Approval | Additional Approval Text | Certificate name |
|--|---|--------------------------|------------------|
|  | UL UL International Netherlands B.V. (ORDINARY LOCATIONS) | UL 508 | E175199 Sec.4 |

Counterpart

Compatible products














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 |
|  | Item no.: 2009-145/000-002 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white | www.wago.com/2009-145/000-002 |
|  | 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; red | 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; blue | www.wago.com/2009-145/000-006 |
|  | Item no.: 2009-145/000-007 Mini-WSB Inline; for Smart Printer; 1700 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white | www.wago.com/2009-145/000-007 |
|  | 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; orange | 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; green | www.wago.com/2009-145/000-023 |

Subject to changes. Please also observe the further product documentation!

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| | | |
|--|--|--|
|  | <p>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; violet</p> | www.wago.com/2009-145/000-024 |
|  | <p>Item no.: 210-110 Fiber-tip pen</p> | www.wago.com/210-110 |
|  | <p>Item no.: 248-501 Miniature WSB Quick marking system; plain; Marker width 5 mm; 10 strips with 10 markers per card</p> | www.wago.com/248-501 |
|  | <p>Item no.: 248-501/000-002 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; yellow</p> | www.wago.com/248-501/000-002 |
| | <p>Item no.: 248-501/000-005 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; red</p> | www.wago.com/248-501/000-005 |
|  | <p>Item no.: 248-501/000-006 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; blue</p> | www.wago.com/248-501/000-006 |
|  | <p>Item no.: 248-501/000-007 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; gray</p> | www.wago.com/248-501/000-007 |
|  | <p>Item no.: 248-501/000-012 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; orange</p> | www.wago.com/248-501/000-012 |
|  | <p>Item no.: 248-501/000-017 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; light green</p> | www.wago.com/248-501/000-017 |
|  | <p>Item no.: 248-501/000-023 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; green</p> | www.wago.com/248-501/000-023 |
|  | <p>Item no.: 248-501/000-024 Mini-WSB marking card; as card; not stretchable; plain; snap-on type; violet</p> | www.wago.com/248-501/000-024 |
|  | <p>Item no.: 248-502 Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white</p> | www.wago.com/248-502 |
|  | <p>Item no.: 248-502/000-024 Mini-WSB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; violet</p> | www.wago.com/248-502/000-024 |
|  | <p>Item no.: 248-503 Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white</p> | www.wago.com/248-503 |
| | <p>Item no.: 248-503/000-024</p> | |

Subject to changes. Please also observe the further product documentation!



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



Item no.: 248-504
Mini-WSB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white www.wago.com/248-504



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



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



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

Jumper



Item no.: 859-402
Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; light gray www.wago.com/859-402



Item no.: 859-402/000-005
Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; red www.wago.com/859-402/000-005



Item no.: 859-402/000-006
Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; blue www.wago.com/859-402/000-006



Item no.: 859-402/000-029
Push-in type jumper bar; 2-way; Nominal current 18 A; insulated; yellow www.wago.com/859-402/000-029



Item no.: 859-403
Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; light gray www.wago.com/859-403



Item no.: 859-403/000-005
Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; red www.wago.com/859-403/000-005



Item no.: 859-403/000-006
Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; blue www.wago.com/859-403/000-006



Item no.: 859-403/000-029
Push-in type jumper bar; 3-way; Nominal current 18 A; insulated; yellow www.wago.com/859-403/000-029



Item no.: 859-404
Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; light gray www.wago.com/859-404

Subject to changes. Please also observe the further product documentation!

Item no.: 859-404/000-005
Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; red

www.wago.com/859-404/000-005



Item no.: 859-404/000-006
Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; blue

www.wago.com/859-404/000-006



Item no.: 859-404/000-029
Push-in type jumper bar; 4-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-404/000-029



Item no.: 859-405
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; light gray

www.wago.com/859-405



Item no.: 859-405/000-005
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; red

www.wago.com/859-405/000-005



Item no.: 859-405/000-006
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; blue

www.wago.com/859-405/000-006



Item no.: 859-405/000-029
Push-in type jumper bar; 5-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-405/000-029



Item no.: 859-406
Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; light gray

www.wago.com/859-406



Item no.: 859-406/000-005
Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; red

www.wago.com/859-406/000-005



Item no.: 859-406/000-006
Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; blue

www.wago.com/859-406/000-006



Item no.: 859-406/000-029
Push-in type jumper bar; 6-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-406/000-029



Item no.: 859-407
Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; light gray

www.wago.com/859-407



Item no.: 859-407/000-005
Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; red

www.wago.com/859-407/000-005



Item no.: 859-407/000-006
Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; blue

www.wago.com/859-407/000-006

Subject to changes. Please also observe the further product documentation!



Item no.: 859-407/000-029
Push-in type jumper bar; 7-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-407/000-029



Item no.: 859-408
Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; light gray

www.wago.com/859-408



Item no.: 859-408/000-005
Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; red

www.wago.com/859-408/000-005



Item no.: 859-408/000-006
Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; blue

www.wago.com/859-408/000-006



Item no.: 859-408/000-029
Push-in type jumper bar; 8-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-408/000-029



Item no.: 859-409
Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; light gray

www.wago.com/859-409

Item no.: 859-409/000-005
Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; red

www.wago.com/859-409/000-005



Item no.: 859-409/000-006
Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; blue

www.wago.com/859-409/000-006



Item no.: 859-409/000-029
Push-in type jumper bar; 9-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-409/000-029

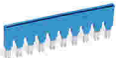


Item no.: 859-410
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated; light gray

www.wago.com/859-410

Item no.: 859-410/000-005
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated; red

www.wago.com/859-410/000-005



Item no.: 859-410/000-006
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated; blue

www.wago.com/859-410/000-006



Item no.: 859-410/000-029
Push-in type jumper bar; 10-way; Nominal current 18 A; insulated; yellow

www.wago.com/859-410/000-029

Test Accessories



Item no.: 859-500
Test pin; 1 mm Ø; with solder connection for test wire

www.wago.com/859-500

Subject to changes. Please also observe the further product documentation!

tools

| | |
|---|--|
| Item no.: 210-720 Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft | www.wago.com/210-720 |
|---|--|

ferrule

| | |
|--|--|
| Item no.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white | www.wago.com/216-221 |
|--|--|



| | |
|--|--|
| Item no.: 216-222 Ferrule; Sleeve for 0.75 mm ² / 18 AWG; insulated; electro-tin plated; gray | www.wago.com/216-222 |
|--|--|



| | |
|--|--|
| Item no.: 216-223 Ferrule; Sleeve for 1 mm ² / AWG 18; insulated; electro-tin plated; red | www.wago.com/216-223 |
|--|--|



| | |
|--|--|
| Item no.: 216-224 Ferrule; Sleeve for 1.5 mm ² / AWG 16; insulated; electro-tin plated; black | www.wago.com/216-224 |
|--|--|

| | |
|--|--|
| Item no.: 216-321 Ferrule; Sleeve for 0.25 mm ² / AWG 24; insulated; electro-tin plated; yellow | www.wago.com/216-321 |
|--|--|



| | |
|---|--|
| Item no.: 216-322 Ferrule; Sleeve for 0.34 mm ² / 22 AWG; insulated; electro-tin plated; green | www.wago.com/216-322 |
|---|--|

End plate

| | |
|--|--|
| Item no.: 859-525 End and intermediate plate; 1 mm thick; gray | www.wago.com/859-525 |
|--|--|

Downloads

Documentation

Instruction Leaflet

| | | | |
|------------------------------------|-------------------------|---------------|----------|
| Relay modules, Optocoupler modules | V 1.2.0 Aug 30, 2019 | pdf 2.2 MB | Download |
|------------------------------------|-------------------------|---------------|----------|

Additional Information

| | | | |
|--|---------|-----------------|----------|
| Disposal; Electrical and electronic equipment, Packaging | V 1.0.0 | pdf 265.8 kB | Download |
|--|---------|-----------------|----------|

CAD/CAE-Data

CAD data

| | | |
|----------------------|-----|----------|
| 2D/3D Models 859-702 | URL | Download |
|----------------------|-----|----------|

CAE data

Subject to changes. Please also observe the further product documentation!

EPLAN Data Portal 859-702

[URL](#)

[Download](#)

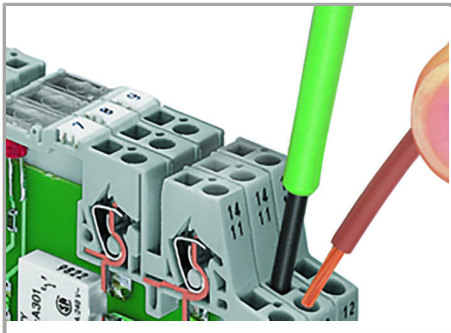
WSCAD Universe 859-702

[URL](#)

[Download](#)

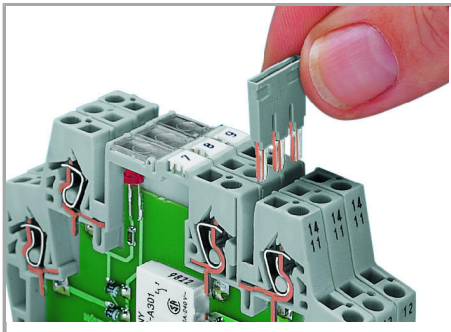
Installation Notes

Inserting a conductor



Connection of conductor

Jumpered



Easy commoning using adjacent jumpers

Marking

Subject to changes. Please also observe the further product documentation!



Marking using miniature WSB quick marking card

Subject to changes. Please also observe the further product documentation!