

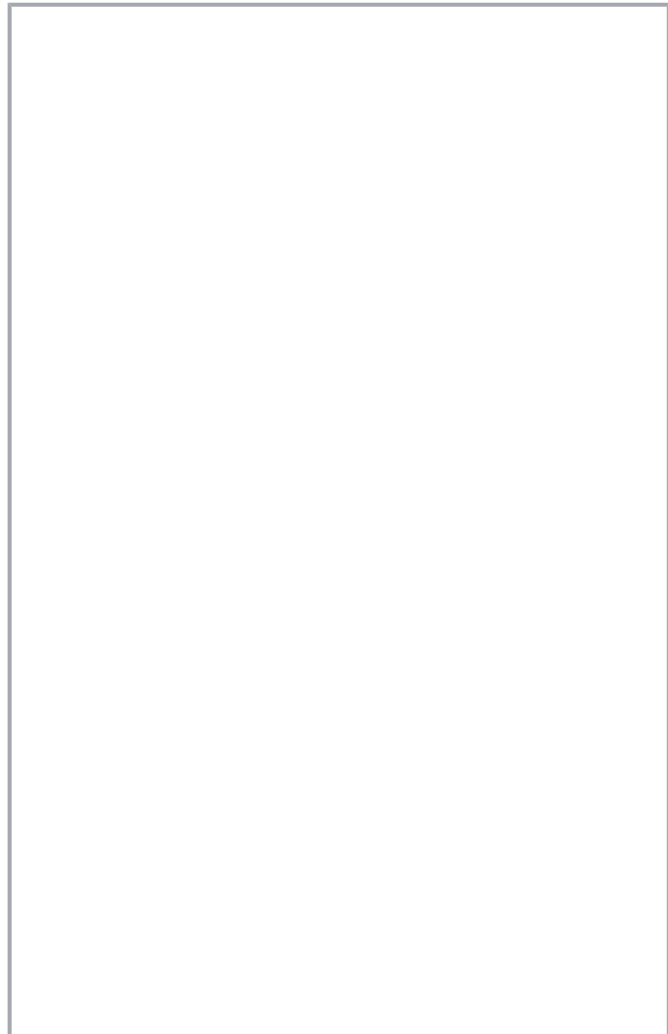
Data sheet | Item number: 859-391

Relay module; Nominal input voltage: 110 VDC; 1 changeover contact;
Railway; Red status indicator; Module width: 6 mm; 2,50 mm²; gray

www.wago.com/859-391



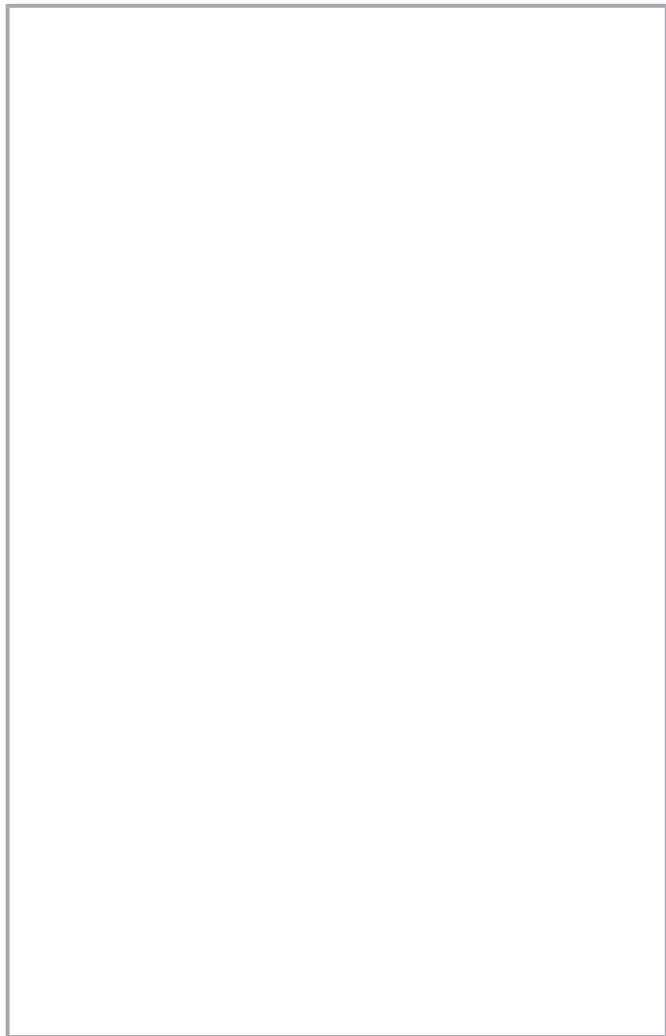
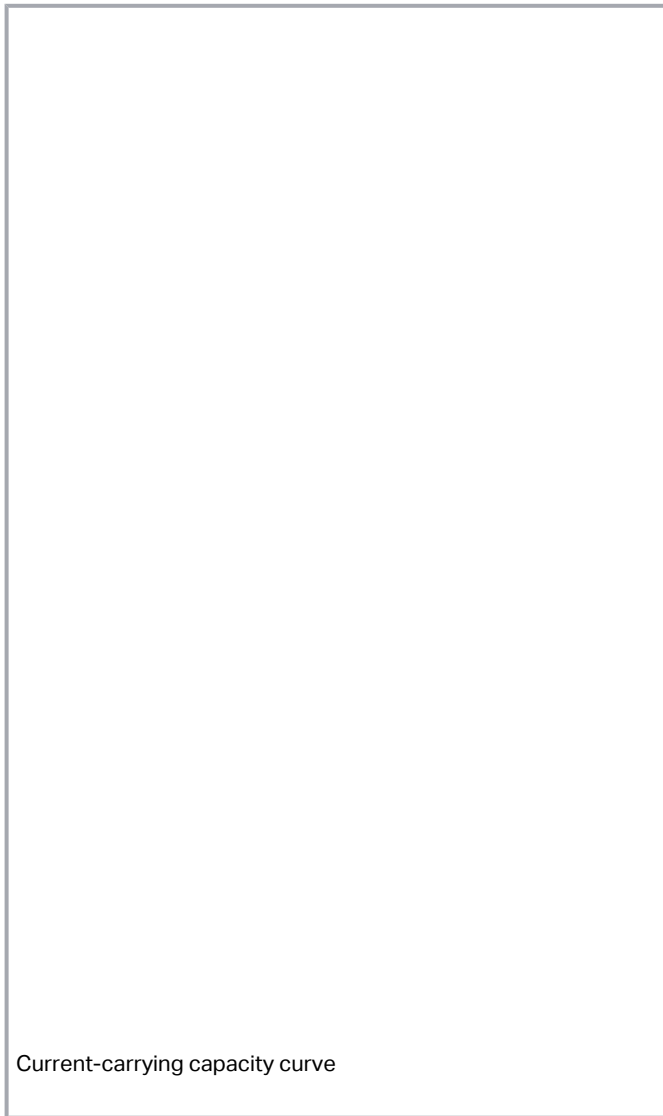
Color:



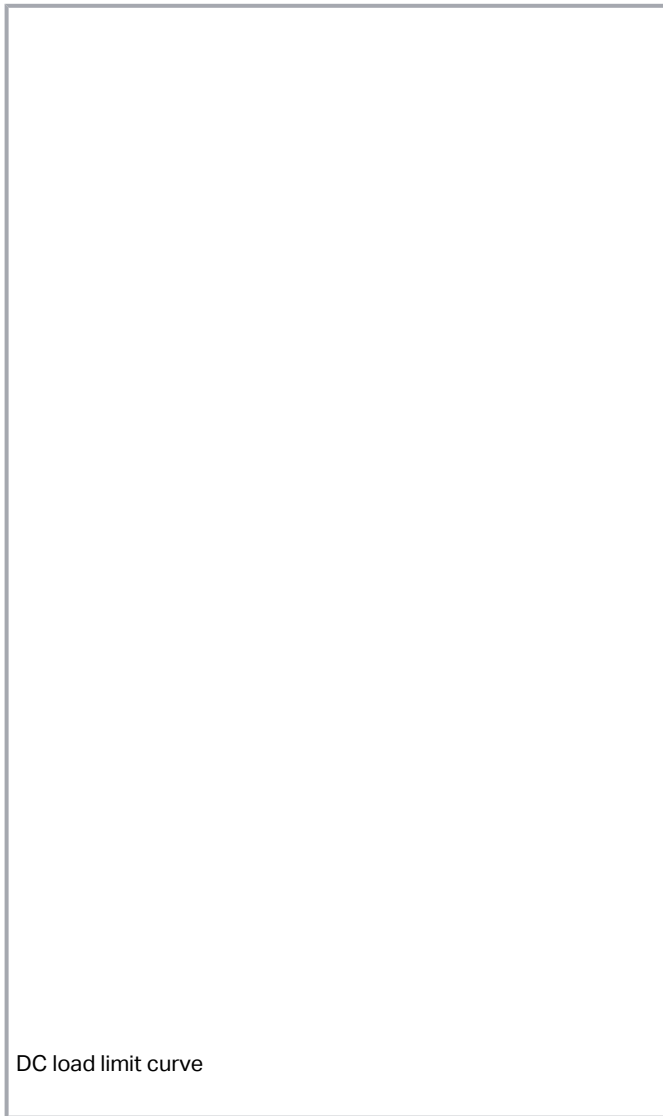
Subject to changes. Please also observe the further product documentation!

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Data

Notes

Note

To protect the relay coils and contacts, inductive loads must be dampened with an effective protection circuit.

Technical data

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Control Circuit

Nominal input voltage U_N	DC 110 V
Input voltage range	$\pm 30\%$
Nominal input current at U_N	3 mA

Load circuit

Number of changeover/switchover contacts	1
Contact material (relay)	AgSnO ₂
Limiting continuous current	5 A
Switching voltage (max.)	AC 250 V
Switching power (resistive) max.	AC 1250 VA; DC (see load limit curve)
Switching capacity	AC-15: 3 A / AC 250 V; DC-13: 2 A / DC 24 V
Recommended minimum load	10 V / 10 mA; 24 V / 1 mA
Pull-in time (typ.)	15 ms
Drop-out time (typ.)	25 ms
Bounce time (typ.)	3.5 ms
Electrical life (NO; resistive load; 23 °C)	50 x 10 ³ switching operations
Mechanical life	5 x 10 ⁶ switching operations
Switching frequency with/without load (max.)	6 min ⁻¹ / 180 min ⁻¹

Signaling

Status indicator	Red LED
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Safety and protection

Rated voltage	300 V
Rated surge voltage	4 kV
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	4 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)
Protection type	IP20; in connected state or when using 859-525 end plate

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
Fine-stranded conductor; with insulated ferrule	0.08 ... 1.5 mm ² / 28 ... 16 AWG
Strip length	5 ... 6 mm / 0.2 ... 0.24 inches

Physical data

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

Mechanical data

Mounting type	DIN-35 rail
Mounting position	Horizontal (standing/lying); vertical

Material Data

Color	gray
Fire load	0.457 MJ
Weight	22.3 g

Environmental requirements

Ambient temperature (operation at U _N)	-40 ... +70 °C
Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T _{ambient} + 20 K)
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Standards and specifications

Standards/specifications	EN 61010-2-201 EN 61810-1 EN 61373
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Subject to changes. Please also observe the further product documentation!



UL 508
DNV

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-37-16-01
eCl@ss 9.0	27-37-16-01
ETIM 8.0	EC001437
ETIM 7.0	EC001437
Recupel Type	
PU (SPU)	10 pcs
Packaging type	box
Country of origin	CN
GTIN	4055143604253
Customs tariff number	85364900990

Environmental Product Compliance

CAS-No.	7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Lead
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	7(a)
SCIP notification number (Austria)	6d12ed06-fbf3-46a1-a654-630e8d49ec3a
SCIP notification number (Belgium)	204a505a-779b-47fd-bb86-ece19e28e6f6
SCIP notification number (Bulgaria)	52694fa5-7fde-4b35-8106-adf982eee3cc
SCIP notification number (Czech Republic)	25a17a55-10db-48ed-bd57-1f856ac46747
SCIP notification number (Denmark)	50126113-d1c1-4fed-8ff4-c751f9813eff
SCIP notification number (Finland)	e6292971-97d1-4062-99e2-1f8d520ffe86
SCIP notification number (France)	dc7b4162-3d72-47f2-a6ca-a778864afaac
SCIP notification number (Germany)	bdf824c4-0b3f-474f-b497-66278509560c
SCIP notification number (Hungary)	58a34e58-8285-4ce7-aca7-c5dd0d887a32
SCIP notification number (Italy)	f6ec7b34-e646-4dac-82b3-bc9d30a8a37e
SCIP notification number (Netherlands)	a5a1c421-7f99-42f1-971a-c6ab6f7bbcaa
SCIP notification number (Poland)	5dcd3f8d-80ba-40ba-ae3d-753b370f3f76
SCIP notification number (Romania)	c2238359-5fcc-49dd-b253-48ff3cbaac69
SCIP notification number (Sweden)	6b37fa18-396b-4c17-a57e-87c804f6fa3c

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Approvals / Certificates

General approvals

Logo	Approval	Additional Approval Text	Certificate name
	UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4

Declarations of conformity and manufacturer's declarations

Logo	Approval	Additional Approval Text	Certificate name
	EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
	UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1
	PRS Polski Rejestr Statków	-	TE/2186 /880590/18

Approvals for hazardous areas

Logo	Approval	Additional Approval Text	Certificate name
	CCC CNEX	CNCA-C23-01	2021312304000982 (Ex ec nC IIC T4 Gc)
	UKEx WAGO GmbH & Co. KG	EN 60079-0	UKCA_WAGO22UKEX007X_ec nC

Optional accessories

Testing and measuring

Testing accessories

Item no.: 859-500

WAGO Test pin; 1 mm Ø; 30 V AC / 60 V DC; CAT0; 1 A; 10 mm uninsulated; Test lead for soldering up to 0,5mm² www.wago.com/859-500

Ferrule

Ferrule

Item no.: 216-223

Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; red

www.wago.com/216-223

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

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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.: 216-221 Ferrule; Sleeve for 0.5 mm ² / 20 AWG; insulated; electro-tin plated; white	www.wago.com/216-221
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; light turquoise	www.wago.com/216-322
End plate	
Intermediate plate	
Item no.: 859-525 End and intermediate plate; 1 mm thick; gray	www.wago.com/859-525
Jumpers	
Jumper	
Item no.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red	www.wago.com/859-404/000-005
Item no.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue	www.wago.com/859-404/000-006
Item no.: 859-405/000-005 Jumper; for jumper slot; 5-way; insulated; red	www.wago.com/859-405/000-005
Item no.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow	www.wago.com/859-405/000-029
Item no.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray	www.wago.com/859-405
Item no.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow	www.wago.com/859-404/000-029
Item no.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue	www.wago.com/859-405/000-006
Item no.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red	www.wago.com/859-406/000-005

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



Item no.: 859-409/000-029
Jumper; for jumper slot; 9-way; insulated; yellow

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

Item no.: 859-410/000-005
Jumper; for jumper slot; 10-way; insulated; red

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

Item no.: 859-410/000-029
Jumper; for jumper slot; 10-way; insulated; yellow

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

Item no.: 859-410
Jumper; for jumper slot; 10-way; insulated; light gray

www.wago.com/859-410

Item no.: 859-410/000-006
Jumper; for jumper slot; 10-way; insulated; blue

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

Item no.: 859-403/000-005
Jumper; for jumper slot; 3-way; insulated; red

www.wago.com/859-403/000-005

Item no.: 859-402/000-029
Jumper; for jumper slot; 2-way; insulated; yellow

www.wago.com/859-402/000-029

Item no.: 859-403/000-029
Jumper; for jumper slot; 3-way; insulated; yellow

www.wago.com/859-403/000-029

Item no.: 859-403/000-006
Jumper; for jumper slot; 3-way; insulated; blue

www.wago.com/859-403/000-006

Item no.: 859-408/000-005
Jumper; for jumper slot; 8-way; insulated; red

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

Item no.: 859-408/000-029
Jumper; for jumper slot; 8-way; insulated; yellow

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

Item no.: 859-409
Jumper; for jumper slot; 9-way; insulated; light gray

www.wago.com/859-409

Item no.: 859-408/000-006
Jumper; for jumper slot; 8-way; insulated; blue

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

Item no.: 859-403
Jumper; for jumper slot; 3-way; insulated; light gray

www.wago.com/859-403

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

**Item no.: 859-409/000-005**

Jumper; for jumper slot; 9-way; insulated; red

www.wago.com/859-409/000-005**Item no.: 859-404**

Jumper; for jumper slot; 4-way; insulated; light gray

www.wago.com/859-404**Item no.: 859-409/000-006**

Jumper; for jumper slot; 9-way; insulated; blue

www.wago.com/859-409/000-006**Item no.: 859-402/000-006**

Jumper; for jumper slot; 2-way; insulated; blue

www.wago.com/859-402/000-006**Item no.: 859-402**

Jumper; for jumper slot; 2-way; insulated; light gray

www.wago.com/859-402**Item no.: 859-402/000-005**

Jumper; for jumper slot; 2-way; insulated; red

www.wago.com/859-402/000-005**Item no.: 859-406/000-006**

Jumper; for jumper slot; 6-way; insulated; blue

www.wago.com/859-406/000-006**Item no.: 859-406/000-029**

Jumper; for jumper slot; 6-way; insulated; signal yellow

www.wago.com/859-406/000-029**Item no.: 859-407/000-006**

Jumper; for jumper slot; 7-way; insulated; blue

www.wago.com/859-407/000-006**Item no.: 859-407/000-005**

Jumper; for jumper slot; 7-way; insulated; red

www.wago.com/859-407/000-005**Item no.: 859-407/000-029**

Jumper; for jumper slot; 7-way; insulated; yellow

www.wago.com/859-407/000-029**Item no.: 859-407**

Jumper; for jumper slot; 7-way; insulated; light gray

www.wago.com/859-407**Tool**

Operating tool

Item no.: 210-720

Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

www.wago.com/210-720**Marking accessories**

Marking device

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Item no.: 210-110
Fiber-tip pen

www.wago.com/210-110

Marker

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.: 248-501

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

www.wago.com/248-501

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.: 248-503

Mini-WSB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white

www.wago.com/248-503

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

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

Downloads

Documentation

Bid Text

859-391 docx - Datei	2019 年2月20 日	docx 17.3 kB	Download
859-391 X81 - Datei	2019 年2月19 日	xml 4.6 kB	Download

Instruction Leaflet

CCC Ex (Additional information) 859-***	2023 年4月26 日	pdf 135.9 kB	Download
Relay modules, Optocoupler modules	V 2.0.0 2022 年1月19 日	pdf 2.1 MB	Download

Additional Information

Disposal and Recycling Electrical and electronic equipment, Batteries, Packaging	V 1.1.0 2022 年8月18 日	pdf 2.2 MB	Download
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CAD/CAE-Data

CAE data

EPLAN Data Portal 859-391	URL	Download
WSCAD Universe 859-391	URL	Download
ZUKEN Portal 859-391	URL	Download

CAD data

2D/3D Models 859-391	URL	Download
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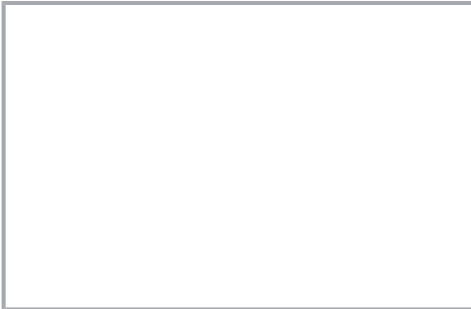
Environmental Product Compliance

Compliance Search

Environmental Product Compliance 859-391	URL	Download
Relay module; Nominal input voltage: 110 VDC; 1 changeover contact; Railway; Red status indicator; Module width: 6 mm; 2,50 mm ² ; gray		

Installation Notes

Conductor termination



Conductor termination

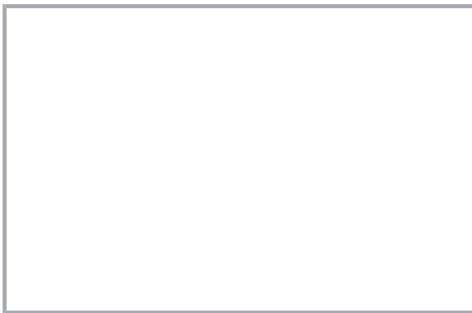
Commoning

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



Easy commoning using adjacent jumpers

Marking



Marking via Mini-WSB Quick Marking System

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