

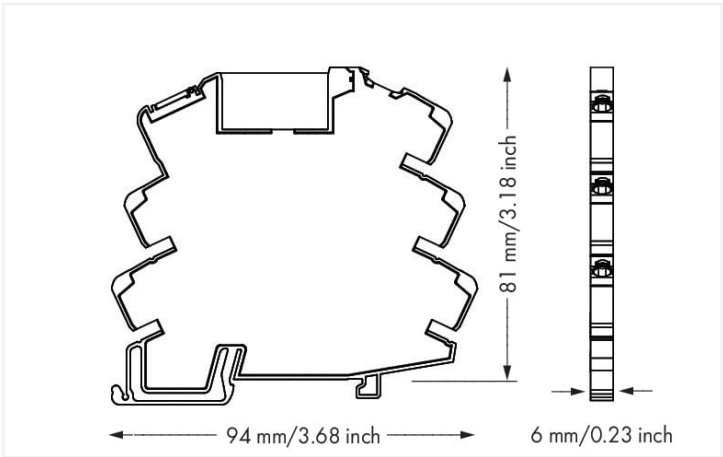
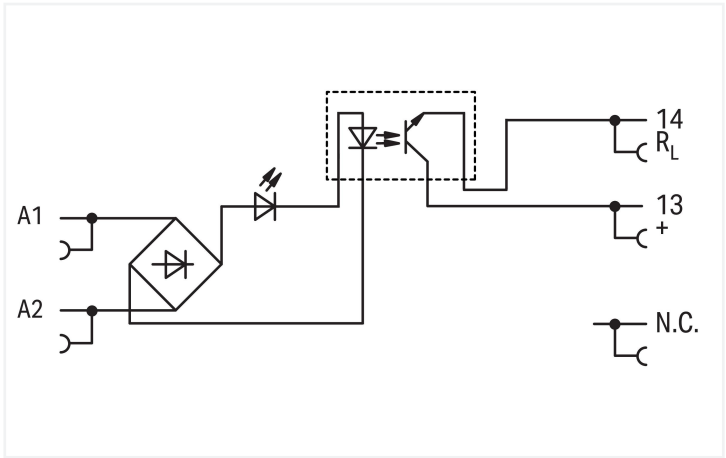
Data Sheet | Item Number: 857-708

Solid-state relay module; Nominal input voltage: 230 V AC/DC; Output voltage range: 0 ... 48 VDC; Limiting continuous current: 0.1 A; 2-wire connection; Yellow status indicator; Module width: 6 mm; gray

<https://www.wago.com/857-708>



Color: ■ gray



Dimensions in mm

Notes	
Note	Optocouplers and solid state relays are designed for use in signal processing networks that are not supplied directly by the low-voltage power supply network.

Technical data			
Control circuit		Load circuit	
Nominal input voltage U_N	AC/DC 230 V	Circuit type	2-wire connection
Input voltage range (low level)	AC/DC 0 ... 30 V	Limiting continuous current	0.1 A
Input voltage range (high level)	AC/DC 200 ... 253 V	Nominal output voltage	DC 24 V
Nominal input current at U_N	4 mA	Output voltage range	DC 0 ... 48 V
		Voltage drop	≤ 1 VDC
		Leakage current at rated voltage	$\leq 1 \mu A$
		Switching current (min.)	50 μA
		Turn-on time	≤ 4.5 ms
		Turn-off time	≤ 10 ms
		Switching frequency	≤ 20 Hz



Signaling	
Status indicator	Yellow LED

Safety and protection	
Rated Voltage	300 V
Overvoltage category	III
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Reinforced insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Protection type	IP20

Connection data	
Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.34 ... 2.5 mm² / 22 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm² / 22 ... 14 AWG
Fine-stranded conductor; with insulated ferrule	0.34 ... 1.5 mm² / 22 ... 16 AWG
Strip length	9 ... 10 mm / 0.35 ... 0.39 inches

Physical data	
Width	6 mm / 0.236 inches
Height	94 mm / 3.701 inches
Depth from upper-edge of DIN-rail	81 mm / 3.189 inches

Mechanical data	
Mounting type	DIN-35 rail
Mounting position	horizontal (standing/lying); vertical

Material data	
Note (material data)	Information on material specifications can be found here
Color	gray
Insulation material (main housing)	Polyamide (PA66)
Material group	I
Flammability class per UL94	V0
Fire load	0.64 MJ
Weight	30.7 g

Environmental requirements	
Ambient temperature (operation at U _N)	-20 ... +60 °C
Ambient temperature (storage)	-40 ... +70 °C
Processing temperature	-25 ... +50 °C
Temperature range of connection cable	≥ (T _{ambient} + 30 K)
Relative humidity	5 ... 85 % (no condensation permissible)
Operating altitude (max.)	2000 m



Standards and specifications		
Standards/specifications		EN 61000-6-2 EN 61000-6-3 EN 61373 EN 61010-2-201 UL 508

Basic relay		
WAGO Basic Relay		857-165

Commercial data		
Product Group		6 (INTERFACE ELECTRONIC)
eCl@ss 10.0		27-26-15-03
eCl@ss 9.0		27-26-15-03
ETIM 9.0		EC001504
ETIM 8.0		EC001504
PU (SPU)		25 (1) pcs
Packaging type		Box
Country of origin		DE
GTIN		4045454835514
Customs tariff number		85365005000

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) 7(c)-I
SCIP notification number (Bulgaria)		f70c9b06-cb20-4326-bdd8-6063a3a2bad4
SCIP notification number (Czech Republic)		f644b729-cf8b-4021-bc1e-9c846bb94cc8

Approvals / Certificates		
General approvals		Declarations of conformity and manufacturer's declarations
 		
Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 004/2011	EAC CoC 03078
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03081
UL Underwriters Laboratories Inc. (ORDINARY LOCATIONS)	UL 508	E175199 Sec.4
		EU-Declaration of Conformity WAGO GmbH & Co. KG



Approvals for hazardous areas



Approval	Standard	Certificate Name
ATEX DEKRA EXAM GmbH	EN 60079-0	BVS_14_ATEX_E_091_X (II 3G Ex ec nC IIC T4 Gc; II 3G Ex ec IIC T4 Gc)
CCC CNEX	CNCA-C23-01	2020312304000757 (Ex ec IIC T4 Gc)
IECEX DEKRA EXAM GmbH	IEC 60079-0	IECEX_BVS_14.0079X_Is-sue_3 (Ex ec nC IIC T4 Gc; Ex ec IIC T4 Gc)
UKEx WAGO GmbH & Co. KG	EN 60079-0	WAGO22UKEX002X_ec

Downloads

Environmental Product Compliance

Compliance Search
Environmental Product Compliance 857-708 

Documentation

Bid Text			
857-708	19.02.2019	xml 4.15 KB	
857-708	20.02.2019	docx 15.99 KB	

Instruction Leaflet			
CCC Ex (Additional in-formation)	26.04.2023	pdf 129.88 KB	

CAD/CAE-Data

CAD data
2D/3D Models 857-708 

CAE data
EPLAN Data Portal 857-708 
WSCAD Universe 857-708 
ZUKEN Portal 857-708 



1 Compatible Products				
1.1 Optional Accessories				
1.1.1 Basic relay				
1.1.1.1 Basic solid-state relay				
				
Item No.: 857-165 Basic solid-state relay; Nominal input voltage: 60 VDC; Output voltage range: 0 ... 48 VDC				
1.1.2 Ferrule				
1.1.2.1 Ferrule				
   				
Item No.: 216-241 Ferrule; Sleeve for 0.5 mm² / 20 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; white Item No.: 216-242 Ferrule; Sleeve for 0.75 mm² / 18 AWG; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; gray Item No.: 216-243 Ferrule; Sleeve for 1 mm² / AWG 18; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; red Item No.: 216-244 Ferrule; Sleeve for 1.5 mm² / AWG 16; insulated; electro-tin plated; electrolytic copper; gastight crimped; acc. to DIN 46228, Part 4/09.90; black				
1.1.3 Jumper				
1.1.3.1 Jumper				
   				
Item No.: 281-482 Jumper; 2-way; insulated; gray Item No.: 859-410/000-006 Jumper; for jumper slot; 10-way; insulated; blue Item No.: 859-410 Jumper; for jumper slot; 10-way; insulated; light gray Item No.: 859-410/000-005 Jumper; for jumper slot; 10-way; insulated; red				
   				
Item No.: 859-410/000-029 Jumper; for jumper slot; 10-way; insulated; yellow Item No.: 859-402/000-006 Jumper; for jumper slot; 2-way; insulated; blue Item No.: 859-402 Jumper; for jumper slot; 2-way; insulated; light gray Item No.: 859-402/000-005 Jumper; for jumper slot; 2-way; insulated; red				
   				
Item No.: 859-402/000-029 Jumper; for jumper slot; 2-way; insulated; yellow Item No.: 859-403/000-006 Jumper; for jumper slot; 3-way; insulated; blue Item No.: 859-403 Jumper; for jumper slot; 3-way; insulated; light gray Item No.: 859-403/000-005 Jumper; for jumper slot; 3-way; insulated; red				
   				
Item No.: 859-403/000-029 Jumper; for jumper slot; 3-way; insulated; yellow Item No.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue Item No.: 859-404 Jumper; for jumper slot; 4-way; insulated; light gray Item No.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red				
   				
Item No.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow Item No.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue Item No.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray Item No.: 859-405/000-005 Jumper; for jumper slot; 5-way; insulated; red				
   				
Item No.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow Item No.: 859-406/000-006 Jumper; for jumper slot; 6-way; insulated; blue Item No.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray Item No.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red				
   				
Item No.: 859-406/000-029 Jumper; for jumper slot; 6-way; insulated; signal yellow Item No.: 859-407/000-006 Jumper; for jumper slot; 7-way; insulated; blue Item No.: 859-407 Jumper; for jumper slot; 7-way; insulated; light gray Item No.: 859-407/000-005 Jumper; for jumper slot; 7-way; insulated; red				



1.1.3.1 Jumper



Item No.: 859-407/000-029 Jumper; for jumper slot; 7-way; insulated; yellow	Item No.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue	Item No.: 859-408 Jumper; for jumper slot; 8-way; insulated; light gray	Item No.: 859-408/000-005 Jumper; for jumper slot; 8-way; insulated; red
Item No.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow	Item No.: 859-409/000-006 Jumper; for jumper slot; 9-way; insulated; blue	Item No.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray	Item No.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red
Item No.: 859-409/000-029 Jumper; for jumper slot; 9-way; insulated; yellow			

1.1.4 Marking

1.1.4.1 Double marker carrier



Item No.: 209-128 Adaptor; gray
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1.1.4.2 Group marker carrier



Item No.: 249-105 Group marker carrier; gray

1.1.4.3 Marker



Item No.: 209-183 Marker; white	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	Item No.: 793-502 WMB marking card; as card; MARKED; 1 ... 10 (10x); not stretchable; Horizontal marking; snap-on type; white	Item No.: 793-566 WMB marking card; as card; MARKED; 1 ... 50 (2x); not stretchable; Horizontal marking; snap-on type; white
Item No.: 793-503 WMB marking card; as card; MARKED; 11 ... 20 (10x); not stretchable; Horizontal marking; snap-on type; white	Item No.: 793-504 WMB marking card; as card; MARKED; 21 ... 30 (10x); not stretchable; Horizontal marking; snap-on type; white	Item No.: 793-505 WMB marking card; as card; MARKED; 31 ... 40 (10x); not stretchable; Horizontal marking; snap-on type; white	Item No.: 793-506 WMB marking card; as card; MARKED; 41 ... 50 (10x); not stretchable; Horizontal marking; snap-on type; white
Item No.: 793-501 WMB marking card; as card; not stretchable; plain; snap-on type; white	Item No.: 2009-115 WMB-Inline; for Smart Printer; 1500 pieces on roll; stretchable 5 - 5.2 mm; plain; snap-on type; white		

1.1.4.4 Marking device



Item No.: 210-110
Fiber-tip pen

1.1.4.5 Marking strip



Item No.: 2009-110
Marking strips; for Smart Printer; on reel;
not stretchable; plain; snap-on type; white

1.1.4.6 Protective marker cover



Item No.: 209-184
Protection cover; transparent

1.1.5 Tool

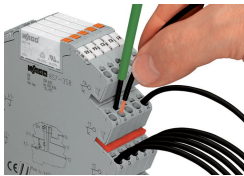
1.1.5.1 Operating tool



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

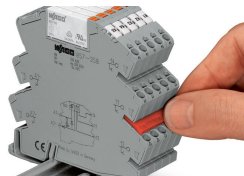
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via WMB Multi Marking System.

Installation



Removing a relay via ejector.