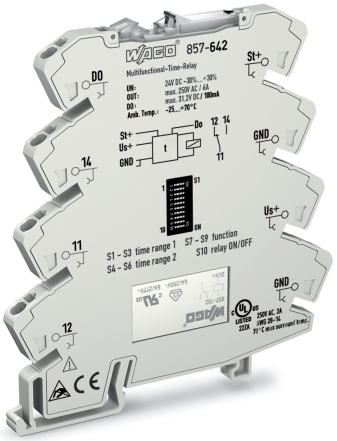
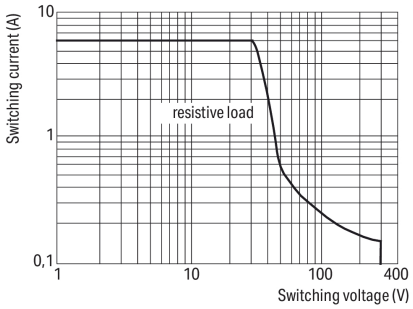
Data Sheet | Item Number: 857-642

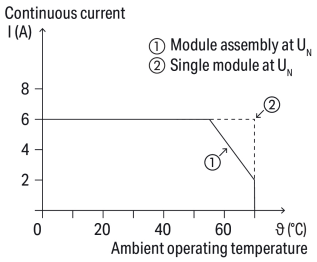
Timer relay module; Nominal input voltage: 24 VDC; Limiting continuous current: 6 A; Railway; Multifunction/Multitime; Yellow status indicator; Module width: 6 mm

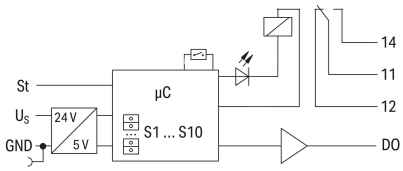
https://www.wago.com/857-642



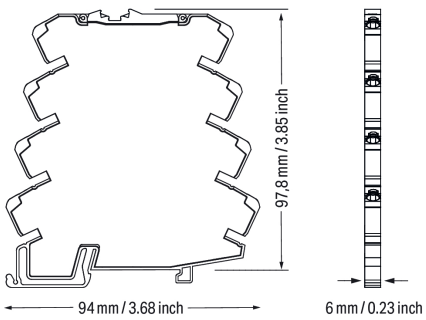


DC load limit curve





Current-carrying capacity curve



Features:

- 7 functions
- 2 separately adjustable time ranges
- Function and time range adjustable via DIP switch

- Push/slide switch for fine-tuning the times

Notes

Safety Information	Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.
Note	Terminals 6 (GND) and 8 (GND) are internally bridged. The maximum current-carrying capacity is 4 A.

Technical data

Control circuit

Nominal input voltage U_N	24 VDC (SELV)
Input voltage range	±30 %
Nominal input current at U_N	0.5 mA
Time range	0.01 … 0.1 s 0.1 … 1 s 1 … 10 s 10 … 100 s 1 … 10 min 10 … 100 min 1 … 10 h 10 … 100 h
Reset time	50 ms
Minimum pulse length (control input)	10 ms
Functions	On- and off-delay (with control input) On-delay and single-shot leading edge On-delay and single-shot leading edge (with control input) Single-shot leading and trailing edge (with control input) Pulse sequence evaluation (with control input) Repeat cycle timer (pulse start) Repeat cycle timer (interval start), control input

Load circuit

Number of changeover/switchover contacts	1
Contact material (relay)	$AgSnO_2$
Limiting continuous current	6 A
Inrush current (resistive) max.	(AC) 20 A / 0.02 s
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Utilization category	AC-15: 3 A / 250 VAC DC-13: 2 A / 24 VDC
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
Digital output (DO)	U_N - 1 V ; 100 mA
Short circuit protection (load circuit)	6.3 A; Slow (T); Test based on EN 61812-1 with short-circuit current 100 ADC

Power Supply

Nominal supply voltage U_S	24 VDC (SELV)
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 17.5 mA

Signaling

Status indicator	Yellow LED

Safety and protection

Rated Voltage	300 V
Rated impulse withstand voltage	6.4 kV
Overvoltage category	II
Pollution degree	2
Dielectric strength (control/load circuit) (AC, 1 min)	3.51 kVrms
Dielectric strength (open contact) (AC, 1 min)	1 kVrms
Insulation type (control/load circuit)	Reinforced insulation (safe isolation)
Insulation type (between adjacent devices of the same type)	Double insulation (safe isolation)
Insulation type (to adjacent devices of different types)	Basic insulation
Safety Information	Adjacent devices of the same type are devices of the same design (series) that are arranged next to one another on the DIN-rail with the same orientation. An end stop (249-116) must be fitted to devices of other types for compliance with the reinforced insulation requirements.
Protection type	IP20

Continued on next page

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
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	97.8 mm / 3.85 inches

Mechanical data

Mounting type	DIN-35 rail

Material data

Note (material data)	Information on material specifications can be found here
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.521 MJ
Weight	27 g

Environmental requirements

Ambient temperature (operation at U_N)	-25 … +70 °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 61373 EN 50121-3-2 UL 508 EN 61010-2-201

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4050821565710
Customs tariff number	85364900990

Continued on next page

Product Classification

UNSPSC	39122329
eCl@ss 10.0	27-37-16-05
eCl@ss 9.0	27-37-16-05
ETIM 9.0	EC001439
ETIM 10.0	EC001439
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II 7c
SCIP notification number (Austria)	3b577f50-a8f7-4931-8018-0273f6744d4b
SCIP notification number (Belgium)	889e1473-2ccc-4f3e-a962-66f08b6b9513
SCIP notification number (Bulgaria)	35d84d84-84a7-48a5-8e85-d9c076d92980
SCIP notification number (Czech Republic)	136b2103-8f85-44a8-80b6-7238b933cda1
SCIP notification number (Denmark)	dd71aaca-a453-4adc-8364-11c848085ff8
SCIP notification number (Finland)	af04b623-8bd2-47b4-abce-f53cba388b21
SCIP notification number (France)	5c6fb437-6cee-4fad-8189-fa67b2d0d9fd
SCIP notification number (Germany)	73a17d4f-a9bb-46af-bbc7-f6877f9a6d4f
SCIP notification number (Hungary)	522673c1-1804-4e5a-9498-50e0be68fdf0
SCIP notification number (Italy)	5bd150b2-0987-4017-bfb4-1981a4b51fe7
SCIP notification number (Netherlands)	0b76abbd-17a8-4f64-8a2e-aa807581c02d
SCIP notification number (Poland)	19f39985-f039-470b-ab2a-201a399fb747
SCIP notification number (Romania)	5374616e-6c99-43e6-841d-734dff001fba
SCIP notification number (Sweden)	dd5fcbe1-4312-41f3-824d-0cdb44fc18be

Approvals / Certificates

General approvals

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

Declarations of conformity and manufacturer's declarations

Approval	Standard	Certificate Name
EU-Declaration of Conformity WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Continued on next page

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-642

Documentation

Bid Text

857-642	20.02.2019	docx 17.21 KB
857-642	19.02.2019	xml 5.90 KB

Instruction Leaflet

Relaisbaustein mit gestecktem Kleinschaltrelais	V 2.0.0 10.03.2022	pdf 2212.47 KB

CAD/CAE-Data

CAD data

2D/3D Models 857-642

CAE data

EPLAN Data Portal 857-642

WSCAD Universe 857-642

ZUKEN Portal 857-642

1 Compatible Products

1.1 Optional Accessories

1.1.1 Ferrule

1.1.1.1 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

1.1.2 Jumper

1.1.2.1 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

Continued on next page

1.1.2.1 Jumper



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; 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



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

1.1.3 Marking

1.1.3.1 Double marker carrier



Item No.: 209-128
Adaptor; gray

1.1.3.2 Group marker carrier



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

Continued on next page

1.1.3.3 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

1.1.3.4 Marking device



Item No.: 210-110
Fiber-tip pen

1.1.3.5 Marking strip



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

1.1.3.6 Protective marker cover

Item No.: 209-184
Protection cover; transparent

1.1.4 Tool

1.1.4.1 Operating tool

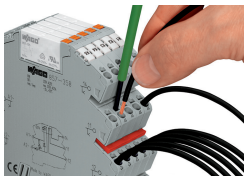


Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Continued on next page

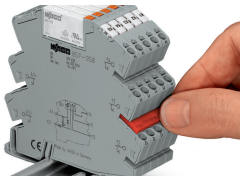
Installation Notes

Conductor termination



Conductor termination

Commoning



Easy commoning using adjacent jumpers

Marking



Marking via WMB Multi Marking System.

Installation



Removing a relay via ejector.