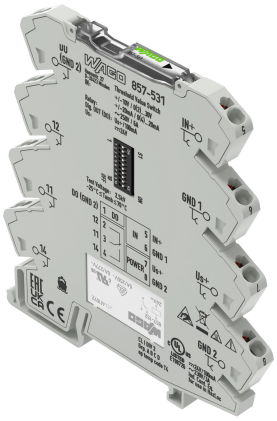
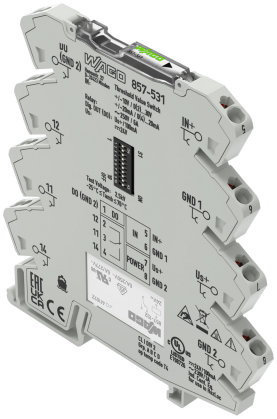
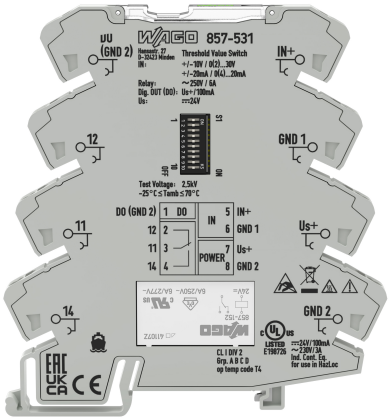
Threshold value switches; Analog values; 1 changeover contact; Digital output; Configuration via software; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²

https://www.wago.com/857-531

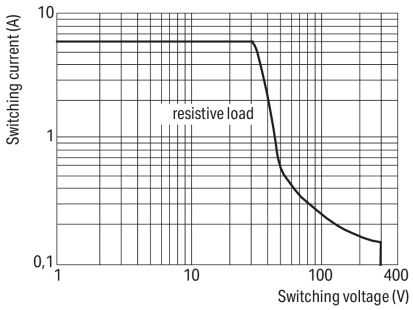




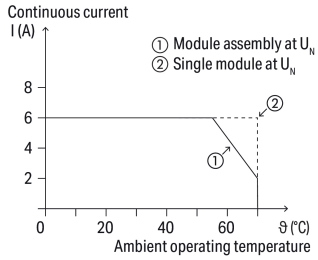


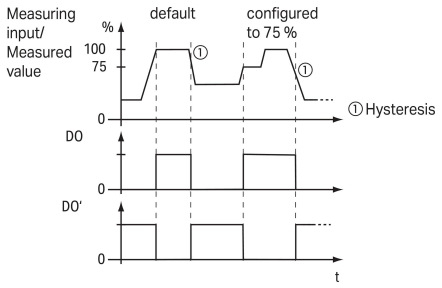




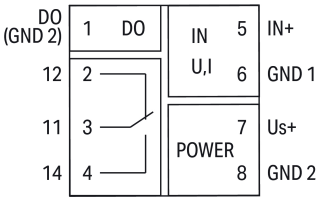


DC load limit curve



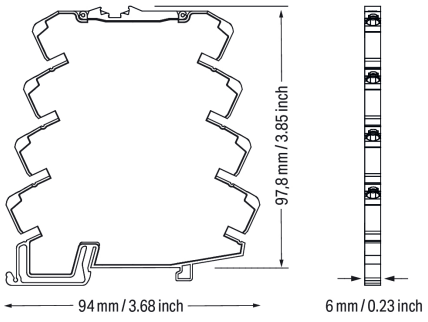


Current-carrying capacity curve



857-531
Push/Slide Switch Operation

Switching Behavior	Configuration						
	Number of Switching Points	Values for Switching Points	Switching Point 1, Relay	Switching Point 2, Relay	Press for 1 sec. / Yellow LED flashes	Red LED flashes briefly	No flashing LED
1	1	S1	„On"	–			
2	1	S1	„Off"	–			
3	2	S1 < S2	„On"	„Off"			
4	2	S1 < S2	„Off"	„On"			
5	2	S1 > S2	„On"	„Off"			
6	2	S1 > S2	„Off"	„On"			
Exit parameterization mode without storing a value	–	–	–	–			



857-531
DIP Switch Adjustability

● = ON Default

DIP-Switch S1

Input Signal Limits ±0.25 V; ±0.5 mA					Hysteresis	
1	2	3	4		5	
				±10 V		5 mV, 10 µA
	●			0 … 10 V	●	10 mV, 20 µA
		●		2 … 10 V		
	●	●		0 … 5 V		
			●	1 … 5 V		
	●		●	±5 V		
		●	●	0 … 15 V		
	●	●	●	0 … 30 V		
●				±20 mA		
●	●			0 … 20 mA		
●		●		4 … 20 mA		
●	●	●		0 … 10 mA		
●			●	2 … 10 mA		
●	●		●	±10 mA		

DIP Switch S1

Configurable Rise/Fall Delay Time in sec.				Digital Output DO Signaling		
6	7	8		9	10	
			0			DO not active
●			1		●	GND → U_s (switching)
	●		2	●		U_s → GND (switching)
●	●		3			
		●	4			
●		●	5			
	●	●	8			
●	●	●	10			

Short description:
This threshold value switch for analog signals monitors standard analog signals and reports signals exceeding a preset threshold.
Configurable digital switching output:
GND switching: The digital output (DO) is switched to "GND" for all input values that are smaller than the lower switching threshold or greater than the upper switching threshold.
U_s switching: For all input values that are smaller than the lower switching threshold or greater than the upper switching threshold, the digital output (DO) adopts the value of the supply voltage.

The preset switching thresholds are 0 % and 100 % (±0.25 V / ±0.5 mA) of the input measurement range. The switching thresholds can be adjusted via the interface configuration software.

Features:
- PC configuration interface
- Changeover relay output
- Calibrated measurement range switching
- Threshold value configuration via DIP switch and teach-in function via push/slide switch

Continued on next page

- 3-way electrical isolation with 3 kV test voltage

Notes

Safety Information	The input and digital output must be safely isolated from hazardous live parts!
Note	**Use shielded signal cables!** Only use shielded signal cables for analog input and output signals. This ensures the device maintains its specified accuracy and immunity to interference, even when external disturbances affect the signal cable. Additional setting options via the WAGO Interface Configuration Software

Technical data

Configuration

Configuration options	DIP switch WAGO Interface Configuration Software Push/slide switch

Input

Input signal type	Voltage Current
Input signal (voltage)	±10 V 0 … 30 V
Input signal (current)	±20 mA
Input resistance (current input)	≤ 200 Ω
Input resistance (voltage input)	≥ 100 kΩ
Input current (max.)	22 mA
Input voltage (max.)	31 V

Output (digital)

Switching voltage (DO) max.	Supply voltage applied
Continuous current (DO) max.	100 mA (no internal restriction)
Number of switching thresholds (DO)	2 (adjustable)

Output (relay)

Number of changeover/switchover contacts	1
Switching Voltage, Max.	250 VAC
Switching power (resistive) max.	AC 1500 VA; DC (see load limit curve)
Drop-out time (typ.)	4 ms
Number of switching thresholds (relay)	1 or 2 (adjustable)
Configurable rise/fall delay time (relay)	0 … 30 s (via software)
Continuous current (max.)	6 A

Signal Processing

Hysteresis	Adjustable via DIP switch or software (valid for relays and DO)
Step response (typ.)	16 ms

Measurement Error

Transmission error (typ.)	≤ 0.1 % of upper-range value
Temperature coefficient	≤ 0.01 %/K

Power Supply

Power supply type	24 VDC (SELV)
Nominal supply voltage U_S	24 VDC
Supply voltage range	±30 %
Current consumption at nominal supply voltage	≤ 25 mA (+ I_{DO})

Safety and protection

Rated Voltage	300 V
Protection type	IP20

Test voltage

Test voltage (input/relay output/supply)	3 kVAC; 50 Hz; 1 min

Continued on next page

Insulation coordination	
Overvoltage category	II
Pollution degree	2
Insulation type (input/supply)	Reinforced insulation (safe isolation)
Insulation type (relay)	Reinforced insulation (safe isolation)
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)

Connection Data	
Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 … 2.5 mm² / 28 … 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	
Insulation material (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.518 MJ
Weight	38.6 g

Environmental requirements	
Ambient temperature (operation)	-25 … +70 °C
Ambient temperature (storage)	-40 … +85 °C
Temperature range of connection cable	≥ ($T_{ambient}$ + 35 K)
Relative humidity	5 … 85 % (no condensation permissible)
Operating altitude (max.)	2000 m

Standards and Specifications	
Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61131-2; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61000-6-4; EN 61131-2; EN 61326-1; EN 50121-3-2
Standards/specifications	EN 61373

Continued on next page

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4066966662375
Customs tariff number	90303370000

Product Classification

UNSPSC	39122331
eCl@ss 10.0	27-21-01-20
eCl@ss 9.0	27-21-01-20
ETIM 9.0	EC002653
ETIM 10.0	EC002653
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8 79-94-7 80-05-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 4,4'-isopropylidenediphenol Diboron trioxide Lead Lead monoxide Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-
RoHS Compliance Status	Compliant,With Exemption
RoHS Exemption	6(c) 7(a) 7(c)-I 7(c)-II
SCIP notification number (Bulgaria)	70c9867b-9228-49b1-8871-0ff4880135a1
SCIP notification number (Czech Republic)	475d917f-e72d-4462-a17f-b1550a3b1393

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

Approvals for marine applications

Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339,Aug.2021	TAA00001D1

Approvals for hazardous areas

Approval	Standard	Certificate Name
UL Underwriters Laboratories Inc. (HAZARDOUS LOCATIONS)	ANSI/ISA 12.12.01	E198726

Downloads

Environmental Product Compliance

Compliance Search

Environmental Product Compliance 857-531

Documentation

Manual

WAGO Threshold Value Switches

Bid Text

857-531	20.02.2019	docx 17.50 KB
857-531	19.02.2019	xml 6.25 KB

Instruction Leaflet

Messumformer und Trennverstärker	V 2.2.2 28.03.2023	pdf 3367.84 KB

CAD/CAE-Data

CAD data

2D/3D Models 857-531

CAE data

EPLAN Data Portal 857-531

WSCAD Universe 857-531

ZUKEN Portal 857-531

Continued on next page

1 Compatible Products

1.1 Optional Accessories

1.1.1 Cables and connectors

1.1.1.1 Communication cable



Item No.: 750-923/000-001
Configuration cable; USB connector; Length: 5 m

1.1.2 Communication

1.1.2.1 Communication cable



Item No.: 750-923
Configuration cable; USB connector; Length: 2.5 m

1.1.3 Interface module

1.1.3.1 Interface adapters



Item No.: 857-980
Interface adapter; 16-pole; analog

1.1.4 Jumper

1.1.4.1 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

Continued on next page

1.1.4.1 Jumper



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

1.1.5 Marking

1.1.5.1 Marker

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

1.1.5.2 Marking strip



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

Continued on next page

1.1.6 Power supply

1.1.6.1 Power Supply



Item No.: 787-2852
Switched-mode power supply; 1-phase; 24 VDC output voltage; 1 A output current

1.1.7 Relay module

1.1.7.1 Relay module



Item No.: 857-304
Relay module; Nominal input voltage: 24 VDC; 1 changeover contact; Limiting continuous current: 6 A; Yellow status indicator; Module width: 6 mm; gray

1.1.8 Screwless end stop

1.1.8.1 Mounting accessories



Item No.: 249-117
Screwless end stop; 10 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



Item No.: 249-197
Screwless end stop; 14 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray



Item No.: 249-116
Screwless end stop; 6 mm wide; for DIN-rail 35 x 15 and 35 x 7.5; gray

1.1.9 Terminal blocks

1.1.9.1 Supply and through module



Item No.: 857-979
Supply and through module

1.1.10 Tool

1.1.10.1 Operating tool

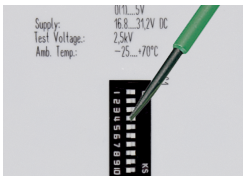


Item No.: 210-720
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

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Installation Notes

Configuring



Configuration via DIP switch

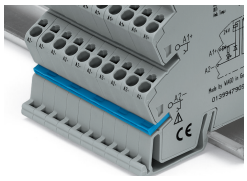


Configuration via WAGO Interface Configuration Software



Configuration via push/slide switch

Commoning



Commoning, not discrete wiring – Same outline allows use of a single in-line, push-in jumper.