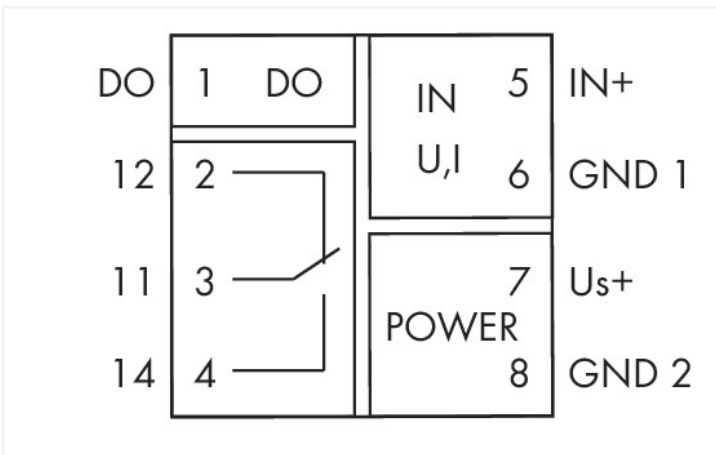
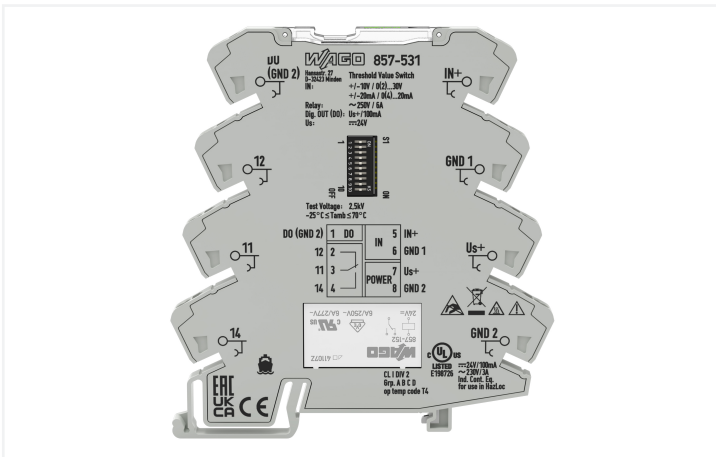


Data Sheet | Item Number: 857-531

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>



857-531
DIP Switch Adjustability

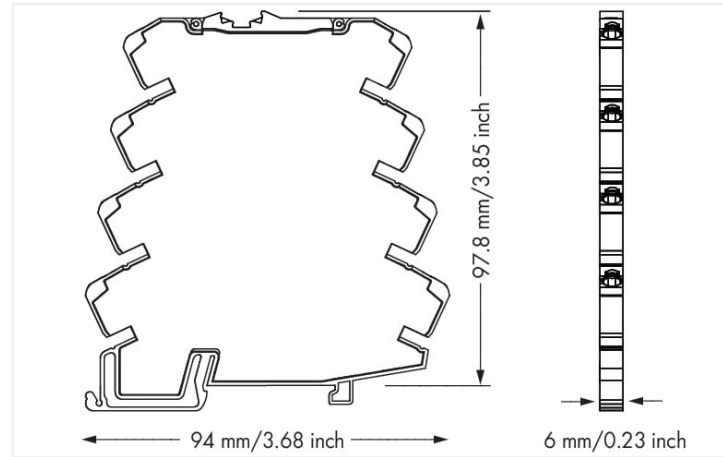
= ON Default

DIP-Switch S1				Input Signal Limits ±0.25 V; ±0.5 mA		Hysteresis		DIP Switch S1				
								Configurable Rise/Fall Delay Time in sec.		Digital Output DO Signaling		
1	2	3	4					6	7	8	9	10
•	•	•	•	±10 V		•		•	•	•	•	•
•	•	•	•	0 ... 10 V		•		•	•	•	•	•
•	•	•	•	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		•		•	•	•	•	•

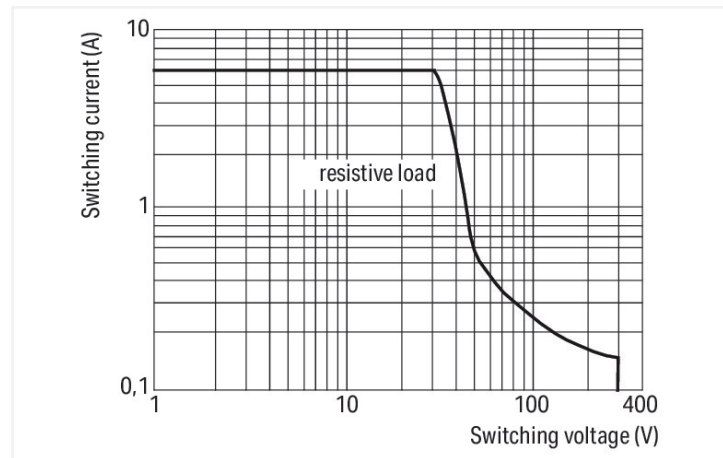
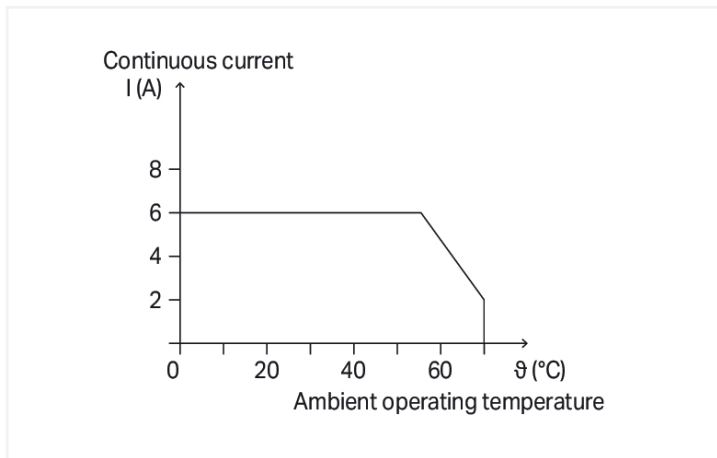
857-531
Push/Side Switch Operation

Switching Behavior (Digital Output, DO)

Switching Behavior	Number of Switching Events	Interval Switching Period	Switching Point 1	Switching Point 2	Configuration			
					Power LED 1 (On/Off)	Power LED 2 (On/Off)	Relay LED 1 (On/Off)	Relay LED 2 (On/Off)
1	1	S1	DO ⁺	-				
2	1	S1	DO ⁻	-				
3	2	S1+S2	DO ⁺	DO ⁺				
4	2	S1+S2	DO ⁺	DO ⁻				
5	2	S1+S2	DO ⁻	DO ⁺				
6	2	S1+S2	DO ⁻	DO ⁻				
External switching without setting value	-	-	-	-				



Dimensions in mm



DC load limit curve

Short description:

WAGO's threshold value switch for analog signals monitors standard analog signals and reports signals exceeding a preset threshold. **Features:**

- PC configuration interface
- Digital switching output
- Changeover contact relay output
- Calibrated measurement range switching
- Threshold value configuration via DIP switches and teach-in function via push/slide switch
- 3-way electrical isolation with 3 kV test voltage

Notes

Note

Use shielded signal lines!

Only use shielded signal lines for analog input and output signals.

Only then can you ensure that the accuracy and interference immunity specified for the device can be achieved, even in the presence of interference acting on the signal cable.

Additional setting options via WAGO Interface Configuration Software or WAGO Interface Configuration App

Technical data

Configuration

Configuration options	DIP switch WAGO Interface Configuration Software WAGO Interface Configuration App 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)	1 (adjustable)

Output (relay)

Number of changeover/switchover contacts	1
Switching voltage (max.)	AC 250 V
Switching power (resistive) max.	AC 1500 VA
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)

Signal processing

Hysteresis	Adjustable via DIP switch or software
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	DC 24 V
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/output/supply)	AC 3 kV; 50 Hz; 1 min
------------------------------------	-----------------------

Insulation coordination

Overvoltage category	II
Pollution degree	2
Insulation type (input/analog output/supply)	Functional insulation
Insulation type (adjacent devices)	Reinforced insulation (safe isolation)

Connection data

Connection technology	Push-in CAGE CLAMP®
Solid conductor	0.08 ... 2.5 mm ² / 28 ... 14 AWG
Fine-stranded conductor	0.34 ... 2.5 mm ² / 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	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.013 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} + 20 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

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
eCl@ss 10.0	27-21-01-20
eCl@ss 9.0	27-21-01-20
ETIM 8.0	EC002653
ETIM 7.0	EC002653
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4045454885229
Customs tariff number	85437090300

Environmental Product Compliance

CAS-No.	79-94-7 80-05-7 1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance	Lead monoxide Phosphine oxide, diphenyl(2,4,6-trimethylbenzoyl)-2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol 4,4'-isopropylidenediphenol Diboron trioxide Lead
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-Off4880135a1
SCIP notification number (Czech Republic)	475d917f-e72d-4462-a17f-b1550a3b1393

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

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

Approvals for marine applications

Approvals for hazardous areas



Approval	Standard	Certificate Name
BV Bureau Veritas S.A.	Rules for class. of Steel Ships	40179_B0
DNV DNV Germany GmbH	DNV-CG-0339, Aug.2021	TAA00001D1



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	

Engineering-Software

Configuration and Commissioning Software

WAGO Interface Configuration Software G2 FULL	1.00.10.01 20.01.2022	exe 112213.07 KB	
WAGO Interface Configuration Software G2 SMALL	1.00.10.01 20.01.2022	exe 30238.22 KB	

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 Bluetooth



Item No.: 750-921
 Bluetooth® Adapter

1.1.2.2 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

1.1.4.1 Jumper

 <p>Item No.: 859-403/000-029 Jumper; for jumper slot; 3-way; insulated; yellow</p>	 <p>Item No.: 859-404/000-006 Jumper; for jumper slot; 4-way; insulated; blue</p>	 <p>Item No.: 859-404 Jumper; for jumper slot; 4-way; insulated; light gray</p>	 <p>Item No.: 859-404/000-005 Jumper; for jumper slot; 4-way; insulated; red</p>
 <p>Item No.: 859-404/000-029 Jumper; for jumper slot; 4-way; insulated; yellow</p>	 <p>Item No.: 859-405/000-006 Jumper; for jumper slot; 5-way; insulated; blue</p>	 <p>Item No.: 859-405 Jumper; for jumper slot; 5-way; insulated; light gray</p>	 <p>Item No.: 859-405/000-005 Jumper; for jumper slot; 5-way; insulated; red</p>
 <p>Item No.: 859-405/000-029 Jumper; for jumper slot; 5-way; insulated; yellow</p>	 <p>Item No.: 859-406/000-006 Jumper; for jumper slot; 6-way; insulated; blue</p>	 <p>Item No.: 859-406 Jumper; for jumper slot; 6-way; insulated; light gray</p>	 <p>Item No.: 859-406/000-005 Jumper; for jumper slot; 6-way; insulated; red</p>
 <p>Item No.: 859-406/000-029 Jumper; for jumper slot; 6-way; insulated; signal yellow</p>	 <p>Item No.: 859-407/000-006 Jumper; for jumper slot; 7-way; insulated; blue</p>	 <p>Item No.: 859-407 Jumper; for jumper slot; 7-way; insulated; light gray</p>	 <p>Item No.: 859-407/000-005 Jumper; for jumper slot; 7-way; insulated; red</p>
 <p>Item No.: 859-407/000-029 Jumper; for jumper slot; 7-way; insulated; yellow</p>	 <p>Item No.: 859-408/000-006 Jumper; for jumper slot; 8-way; insulated; blue</p>	 <p>Item No.: 859-408 Jumper; for jumper slot; 8-way; insulated; light gray</p>	 <p>Item No.: 859-408/000-005 Jumper; for jumper slot; 8-way; insulated; red</p>
 <p>Item No.: 859-408/000-029 Jumper; for jumper slot; 8-way; insulated; yellow</p>	 <p>Item No.: 859-409/000-006 Jumper; for jumper slot; 9-way; insulated; blue</p>	 <p>Item No.: 859-409 Jumper; for jumper slot; 9-way; insulated; light gray</p>	 <p>Item No.: 859-409/000-005 Jumper; for jumper slot; 9-way; insulated; red</p>
 <p>Item No.: 859-409/000-029 Jumper; for jumper slot; 9-way; insulated; yellow</p>			

1.1.5 Marking

1.1.5.1 Marker

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

1.1.5.2 Marking strip



Item No.: 2009-110

Marking strips; for Smart Printer; on reel; not stretchable; plain; snap-on type; white

1.1.6 Power supply

1.1.6.1 Power supply unit



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 module



Item No.: 857-979

Supply and through module

1.1.9.2 Through terminal block



Item No.: 857-979

Supply and through module

1.1.10 Tool

1.1.10.1 Operating tool

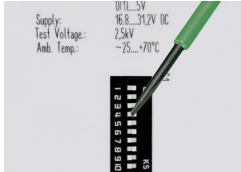


Item No.: 210-720

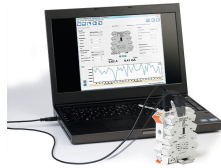
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

Configuring



Configuration via DIP switch

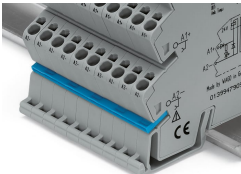


Configuration via WAGO Interface Configuration Software



Configuration via push/slide switch

Commoning



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