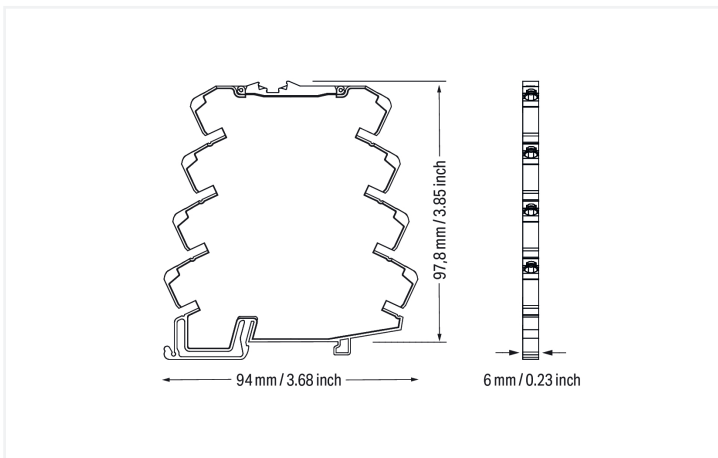
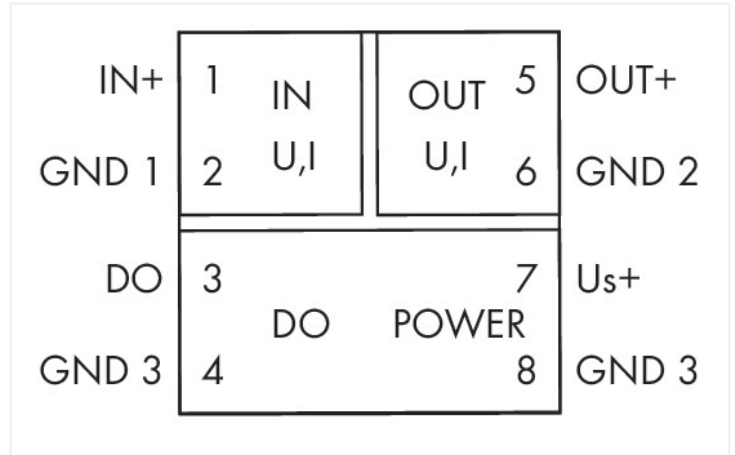
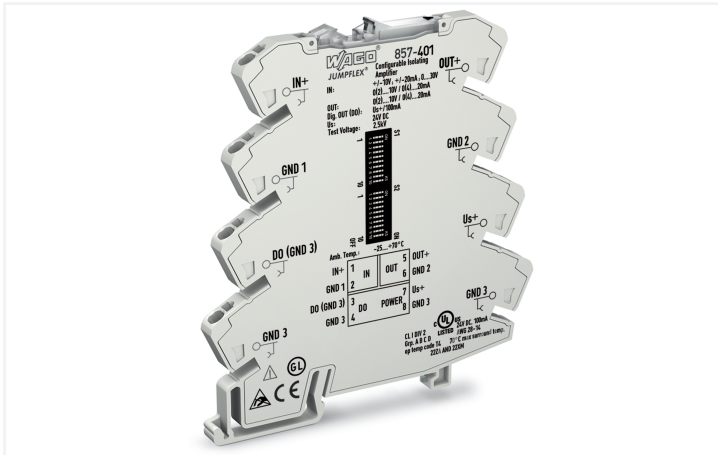


Data Sheet | Item Number: 857-401

Isolation amplifier; Current and voltage input signal; Current and voltage output signal; Digital output; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²

<https://www.wago.com/857-401>



857-401
DIP Switch Adjustability

Input Signal Start Value	Input Signal End Value	DIP S1	DIP S2	DIP S1	DIP S2	DIP S1	DIP S2
0	20	0	0	0	0	0	0
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	0	0	1	1
0	20	1	1	0	0	1	1
0	20	0	0	1	1	1	1
0	20	1	1	1	1	0	0
0	20	0	0	1	1	0	0
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	0
0	20	0	0	1	1	1	1
0	20	1	1	0	0	1	1
0	20	0	0	0	0	1	1
0	20	1	1	0	0	0	0
0	20	0	0	1	1	0	0
0	20	1	1	1	1	0	

Notes

Safety Information	Input and output must be safely isolated from any hazardous live parts!
Note	<p>Additional setting options via the WAGO Interface Configuration Software Terminals 4 (GND 3) and 8 (GND 3) are internally bridged. Current carrying capacity between terminals 4 and 8: max: 1 A</p> <p>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.</p> <p>Use in residential areas is only permitted in conjunction with a power supply that meets the residential area criteria according to EN 61000-6-3.</p>

Technical data

Configuration

Configuration options	DIP switch WAGO Interface Configuration Software
-----------------------	-----------------------------------------------------

Input

Input signal type	Voltage (DC) Current (DC)
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
Measurement span (min.)	1 V
Measurement span (current) min.	2 mA

Output (analog)

Output signal type	Current Voltage
Output signal (voltage)	0 ... 5 V 1 ... 5 V 0 ... 10 V 2 ... 10 V
Output signal (current)	0 ... 10 mA 2 ... 10 mA 0 ... 20 mA 4 ... 20 mA
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 550 Ω

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)

Signal Processing

Step response (typ.)	8 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	≤ 40 mA (+ I_{D0})

Safety and protection

Rated Voltage	300 V	Test voltage	
Protection type	IP20	Test voltage (input/output/supply)	2.5 kVAC; 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 (main housing)	Polyamide (PA66)
Flammability class per UL94	V0
Fire load	0.536 MJ
Weight	37 g

Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C (Individual arrangement; -25 ... +60 °C (block arrangement))
Ambient temperature (storage)	-40 ... +85 °C
Temperature range of connection cable	≥ (T _{ambient} + 10 K)
Relative humidity	5 ... 95 % (no condensation permissible)
Operating altitude (max.)	2000 m

Standards and Specifications

Conformity marking	CE
EMC immunity to interference	EN 61000-6-2; EN 61326-1; EN 50121-3-2
EMC emission of interference	EN 61326-1
Standards/specifications	DNV EN 50121-3-2 EN 61000-6-4 EN 61010-2-201 EN 61373

Commercial data

Product Group	6 (INTERFACE ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Bag
Country of origin	DE
GTIN	4045454828509
Customs tariff number	85437090300

Product Classification

UNSPSC	32101502
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 (Austria)	aff0c6db-2e8d-40df-bb25-c0857553add0
SCIP notification number (Belgium)	e213ff0d-2609-4996-8776-552c3940adb5
SCIP notification number (Bulgaria)	fda52b6c-252d-4865-8b7b-006d61ae0362
SCIP notification number (Czech Republic)	9e6dc05b-8858-42d0-8506-d974c363c8eb
SCIP notification number (Denmark)	9c7f385a-1237-4d96-b43d-39905b245808
SCIP notification number (Finland)	00ecaf4e-bf48-46a7-bd9f-4304f62b07de
SCIP notification number (France)	84768d73-a171-4ad6-b0bf-c06e4790b135
SCIP notification number (Germany)	ff05be1c-f993-4d8d-87f4-089b262c2e93
SCIP notification number (Hungary)	b6abe888-47d6-44d8-beb7-2bb65ab6ef95
SCIP notification number (Italy)	38b69325-eb5e-4b88-aa3f-bf9c997c1044
SCIP notification number (Netherlands)	02d3ec9a-5098-4436-ac58-bc00c2e94d3a
SCIP notification number (Poland)	eb1f3c08-d52f-4472-9c0d-af6649be66e7
SCIP notification number (Romania)	009dc6d9-a76a-43d2-9b7b-afcfef2a2776
SCIP notification number (Sweden)	3d18b596-90fd-4b86-b283-23e0a76d6d35

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
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	-	-
MFD for Railway WAGO GmbH & Co. KG	-	-
UK-Declaration of Conformity WAGO GmbH & Co. KG	-	-

Approvals for marine applications



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

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 857-401 ↓

Documentation

Manual
WAGO Isolating Amplifiers ↓

Bid Text			
857-401	18.07.2019	xml 6.65 KB	↓
857-401	18.07.2019	docx 19.75 KB	↓
857-401	18.07.2019	pdf 76.23 KB	↓

Instruction Leaflet

Signal Conditioners	V 2.0.0 24.01.2023	pdf 2162.69 KB	↓
---------------------	-----------------------	-------------------	-------------------

CAD/CAE-Data

CAD data	CAE data
2D/3D Models 857-401	EPLAN Data Portal 857-401
	WSCAD Universe 857-401
	ZUKEN Portal 857-401

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

1.1.4.1 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			

1.1.5 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

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

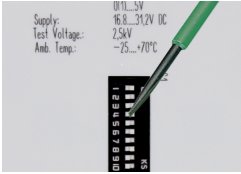


Item No.: 210-720

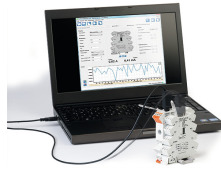
Operating tool; Blade: 3.5 x 0.5 mm; with a partially insulated shaft; multicoloured

Installation Notes

Configuring

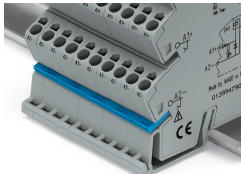


Configuration via DIP switch



Configuration via WAGO Interface Configuration Software

Commoning



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