

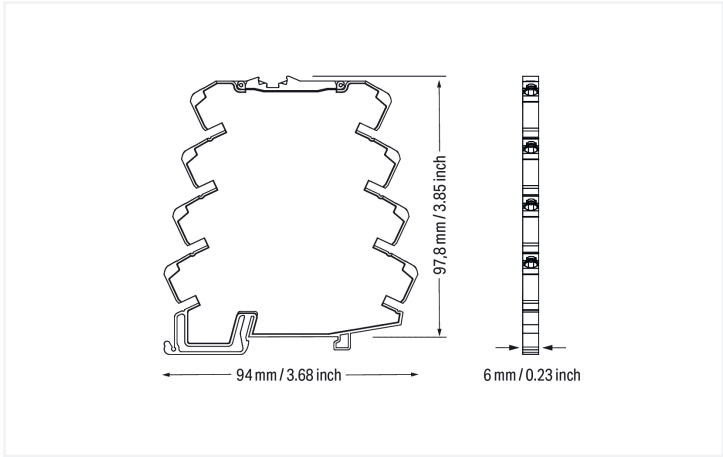
Data Sheet | Item Number: 857-452

Passive isolator, 2-channel; 2 x current input signal; 2 x current output signal; Power via input; 6 mm module width; 2,50 mm²

<https://www.wago.com/857-452>



IN 1+	1	IN 1	5	OUT 1+
GND 1	2		6	GND 2
IN 2+	3	IN 2	7	OUT 2+
GND 3	4		8	GND 4



Short description:

WAGO's passive isolator (2-channel) electrically isolates and filters 0(4) ... 20 mA standard analog signals, while drawing power for signal transmission from the input circuit. The connected sensor supplies the passive isolator with the required power to energize the connected load.

Features:

- No additional supply voltage required
- 3-way electrical isolation with 2.5 kV test voltage

Notes	
Safety Information	Outputs must not be left open!
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.



Technical data

Configuration	
Configuration options	Pre-configured

Input	
Input signal type	Current
Input signal (current)	0 ... 20 mA 4 ... 20 mA
Input current (max.)	40 mA
Input voltage (max.)	20 V
Response threshold	200 µA

Output (analog)	
Output signal type	Current
Output signal (current)	0 ... 20 mA 4 ... 20 mA
Load impedance (current output)	≤ 600 Ω Temperature range restrictions may occur.

Output (voltage tap)	
Voltage drop	≤ 2.5 V (at 20 mA at the output)

Signal Processing	
Limit frequency	100 Hz
Step response (typ.)	3.5 ms

Measurement Error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Load error	≤ 0.05 % of upper-range value; per 100 Ω load
Temperature coefficient	≤ 0.01 %/K

Power Supply	
Power supply type	Passive (via input)

Safety and protection

Rated Voltage	300 V
Measurement category per EN/UL 61010-2-030	CAT II (input)
Overvoltage category	II
Pollution degree	2
Protection type	IP20

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

Insulation coordination (UL)	
Insulation type (input/analog output)	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
Cable type	Shielded cable



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		0.495 MJ
Weight		38.9 g

Environmental requirements		
Ambient temperature (operation)		-25 ... +70 °C
Ambient temperature (storage)		-40 ... +85 °C
Temperature range of connection cable		≥ (T _{ambient} + 15 K)
Temperature range of the connection cable (UL)		70 °C
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
EMC emission of interference		EN 61000-6-3
Standards/specifications		EN 61010-1 DNV

Commercial data		
Product Group		6 (INTERFACE ELECTRONIC)
PU (SPU)		1 pcs
Packaging type		Bag
Country of origin		DE
GTIN		4045454471354
Customs tariff number		85437090300

Product Classification		
UNSPSC		39121008
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	
RoHS Compliance Status	Compliant, No Exemption

Downloads	
Environmental Product Compliance	
Compliance Search	
Environmental Product Compliance 857-452	

Documentation				
Manual		Bid Text		
WAGO Isolating Amplifiers		857-452	20.02.2019	docx 17.66 KB
		857-452	19.02.2019	xml 4.85 KB

Instruction Leaflet			
CCC Ex (Additional information)	26.04.2023	pdf 140.99 KB	
Messumformer und Trennverstärker	V 2.1.0 16.08.2022	pdf 2185.84 KB	

CAD/CAE-Data	
CAD data	CAE data
2D/3D Models 857-452	EPLAN Data Portal 857-452
	WSCAD Universe 857-452
	ZUKEN Portal 857-452