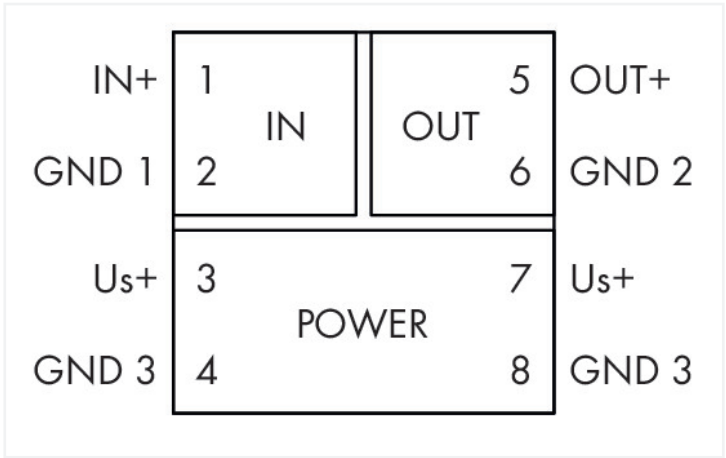


Data Sheet | Item Number: 857-400

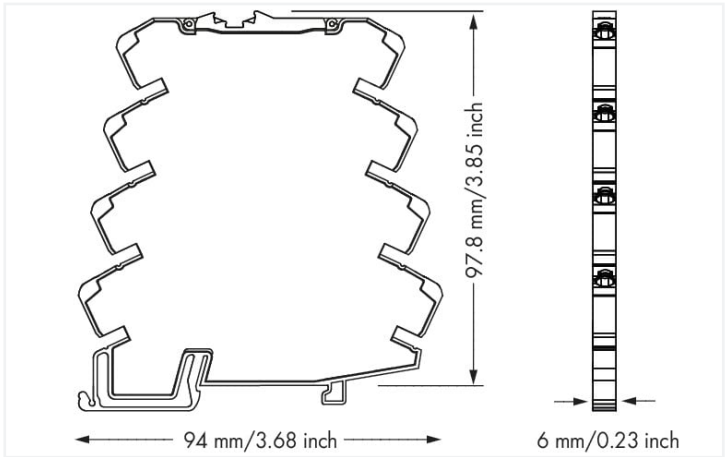
Isolation amplifier; Current and voltage input signal; Current and voltage output signal; Zero/span adjustment; Configuration via DIP switch; Supply voltage: 24 VDC; 6 mm module width; 2,50 mm²



<https://www.wago.com/857-400>



857-400									
DIP Switch Adjustability									
DIP Switch S1 (2-40)					DIP Switch S2 (5-10)				
Input Signal					Output Signal				
1	2	3	4	5	6	7	8	9	10
0...20 mA					0...20 mA				1 kHz
					4...20 mA				100 Hz
					0...10 V				
					2...10 V				
					0...5 V				
					1...5 V				
4...20 mA					0...20 mA				
					4...20 mA				
					0...10 V				
					2...10 V				
					0...5 V				
					1...5 V				
0...10 V					0...20 mA				
					4...20 mA				
					0...10 V				
					2...10 V				
					0...5 V				
					1...5 V				
2...10 V					0...20 mA				
					4...20 mA				
					0...10 V				
					2...10 V				
					0...5 V				
					1...5 V				
0...5 V					0...20 mA				
					4...20 mA				
					0...10 V				
					2...10 V				
					0...5 V				
					1...5 V				
1...5 V					0...20 mA				
					4...20 mA				
					0...10 V				
					2...10 V				
					0...5 V				
					1...5 V				



Short description:

WAGO's configurable signal conditioner converts, amplifies, filters and electrically isolates standard analog signals.

Features:

- Zero/span adjustment across the entire measurement range
- Calibrated measurement range switching
- Switchable limit frequency

Notes

Safety information Input and output must be safely isolated from any hazardous live parts!

Note The 3 (Us+), 7 (Us+), 4 (GND 3) and 8 (GND 3) connections are internally commoned. Current carrying capacity between 3/4 and 7/8 connections: 1 A (max.)

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.



Technical data

Configuration		Input	
Configuration options	DIP switch Potentiometer	Input signal type	Voltage Current
		Input signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V (calibrated switching)
		Input signal (current)	0 ... 20 mA; 4 ... 20 mA (calibrated switching)
		Input resistance (current input)	≤ 50 Ω
		Input resistance (voltage input)	≥ 100 kΩ
		Input current (max.)	50 mA
		Input voltage (max.)	30 V
		Zero/span adjustment	± 3% of upper-range value

Output (analog)	
Output signal type	Current Voltage
Output signal (voltage)	0 ... 5 V; 1 ... 5 V; 0 ... 10 V; 2 ... 10 V (calibrated switching)
Output signal (current)	0 ... 20 mA; 4 ... 20 mA; 0 ... 10 mA; 2 ... 10 mA (calibrated switching)
Load impedance (voltage output)	≥ 2 kΩ
Load impedance (current output)	≤ 600 Ω

Signal processing	
Limit frequency	100 Hz / 5 kHz (configurable via DIP switch)
Step response (typ.)	3.5 ms (100 Hz); 100 μs (5 kHz)

Measurement error	
Transmission error (typ.)	≤ 0.1 % of upper-range value
Transmission error (max.)	≤ 0.2 % of upper-range value
Transmission error (under interference)	≤ 15 % 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
Current consumption (default)	≤ 30 mA
Current consumption (max.)	≤ 40 mA (2 x I _{out} 20 mA; Bürde: 600 Ω; U _{S+} : 9,6 V)

Safety and protection

Protection type	IP20	Test voltage	
		Test voltage (input/output/supply)	AC 2.5 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 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
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Material data

Fire load	0.418 MJ
Weight	36.8 g

Environmental requirements

Ambient temperature (operation)	-25 ... +70 °C
Ambient temperature (storage)	-40 ... +85 °C
Processing temperature	-25 ... +50 °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
EMC emission of interference	EN 61000-6-4
Standards/specifications	DNV UL 508

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	4045454471293
Customs tariff number	85437090300



Environmental Product Compliance	
CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8
REACH Candidate List Substance	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)	61dc3753-5e53-4bb5-9a50-f5aa17855efd
SCIP notification number (Belgium)	c0cac427-821b-4fee-853d-e6256237f640
SCIP notification number (Bulgaria)	b870ee7e-96a6-4693-a71e-ca604ee0becd
SCIP notification number (Czech Republic)	e7e38323-7816-4bca-823d-3b7279f03a44
SCIP notification number (Denmark)	6601305f-f71c-49d0-b0a8-1bb00e9b10a9
SCIP notification number (Finland)	f0f87a08-b417-4804-bef3-c3544e6ec13a
SCIP notification number (France)	7fece020-0230-4fff-8cee-bf52a792d4d6
SCIP notification number (Germany)	197024b5-9ab4-47ce-ad91-4e9856e8eff0
SCIP notification number (Hungary)	32b8cc06-78ff-4b21-86dd-dbc709b88954
SCIP notification number (Italy)	1a3b35dc-ce7d-420c-9c23-318120ddc4e0
SCIP notification number (Netherlands)	b772c60e-9cbe-49e9-8f7d-522704ecfa81
SCIP notification number (Poland)	dd653e15-62aa-4136-bfb4-6c245822ff06
SCIP notification number (Romania)	7347c6f8-21e0-4fd4-ab8f-e32d7983d5cc
SCIP notification number (Sweden)	dd90bd68-e44b-432d-98d3-fe7c80da2930

Approvals / Certificates

General approvals		Declarations of conformity and manufacturer's declarations
Approval	Standard	Certificate Name
EAC Brjansker Zertifizierungs- stelle	TP TC 020/2011	EAC_Certificate_RU_C- DE.AM02.B.00115_19
UL Underwriters Laboratories Inc. (ORDINARY LOCATI- ONS)	UL 508	E175199 Sec.4
		Approval Standard Certificate Name EU-Declaration of Confor- mity 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
PRS Polski Rejestr Statków	-	TE/2186/880590/18
		Approval Standard Certificate Name ATEX TUEV Nord Cert GmbH EN 60079-0 TUEV14ATEX112692X (II 3G Ex ec IIC T4 Gc)
		CCC CNEX CNCA-C23-01 2020312310000210 (Ex ec IIC T4 Gc)
		EAC Brjansker Zertifizierungs- stelle TP TC 012/2011 EAC RU C-DE.AM02. B.00144/19 (2 Ex nA IIC T4 Gc X)
		IECEX TUEV Nord Cert GmbH - IECEX TUN14.0030X
		UKEx WAGO GmbH & Co. KG EN 60079-0 WAGO22UKEX004X



Approvals for hazardous areas		
UL	ANSI/ISA 12.12.01	E198726
Underwriters Laboratories Inc. (HAZARDOUS LOCA- TIONS)		

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 857-400	↓

Documentation

Manual	
WAGO Isolating Ampli- fiers	↓

Bid Text			
857-400	18.07.2019	xml 6.10 KB	↓
857-400	18.07.2019	docx 19.31 KB	↓
857-400	18.07.2019	pdf 75.55 KB	↓

Instruction Leaflet			
CCC Ex (Additional in- formation)	26.04.2023	pdf 140.99 KB	↓
Messumformer und Trennverstärker	V 2.0.0 16.08.2022	pdf 2246.01 KB	↓

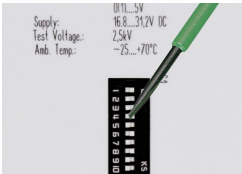
CAD/CAE-Data

CAD data	
2D/3D Models 857-400	↓

CAE data	
EPLAN Data Portal 857-400	↓
WSCAD Universe 857-400	↓
ZUKEN Portal 857-400	↓

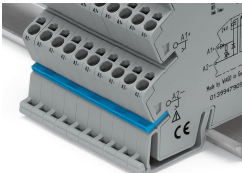
Installation Notes

Configuring



Configuration via DIP switch

Commoning



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