Data sheet | Item number: 789-621

Current signal conditioner; Current input signal: 140 ADC; Modbus RTU; Supply voltage: 24 VDC; Module width: 35 mm

www.wago.com/789-621

789-621

RJ-45-Connector Pin Assignment:

Pin	Function
1	Ub
2	
3	n.c.
4	A (Data+)
5	B (Data-)
6	n.c.
7	GND
8	

Communication Description:

Modbus® Function	Read Holding Registers (0x03)
Address of Measured Value	0x0004
Data Type Measurement	Integer

Error Numbers	
id	Description
01	Illegal Function
03	Illegal Data
101	Overflow (Current > +63 A)
102	Underflow (Current < -3 A)

DIP Switch Adjustability

• = ON

Adress	DIP Switch					Terminating Resistor	DIP Switch 1
	2	3	4	5	6	-	
1						150 Ohm	•
2					•		
3				•			
4				•	•		
5			•				
6			•		•		
7			•	•			
8			•	•	•		
9		•					
10		•			•		
11		•		•			
12		•		•	•		
13		•	•				
14		•	•		•		
15		•	•	•			
16		•	•	•	•		
17	•						
18	•				•		
19	•			•			
20	•			•	•		
21	•		•				
22	•		•		•		
23	•		•	•			
24	•		•	•	•		
25	•	•					
26	•	•			•		
27	•	•		•			
28	•	•		•	•		
29	•	•	•				
30	•	•	•		•		
31	•	•	•	•			
32	•	•	•	•	•		

NOTICE:
Only set the Modbus® Adress in the OFF state.

Item description

Short description:

This intelligent current sensor monitors solar plants or inverters for DC measurements within a large current measurement range. The sensor is mounted on DIN-35 rail.

Data
Technical Data

Subject to changes. Please also observe the further product documentation!

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Input

Input signal type	Electricity
Input signal, current	; DC 0 … 140 A
Resolution [bit]	15 Bit

Communication

Communication	Modbus RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of participants (max.)	32
Max. length of bus line	≤ 1200 m
Baud rate	19,2 kBd
Parity	Even
Terminating resistor	150 Ω (can be activated via DIP switch 1)

Measurement error

Transmission error typ.	≤ 0.5 % of upper-range value (0 … 80 A; at room temperature); ≤ 1 % of upper-range value (80 … 140 A; at room temperature)
Temperature coefficient	≤ 0.05 %/K (-20 … 60 °C); ≤ 0.1 %/K (60 … 70 °C)

Power supply

Nominal supply voltage U_S	DC 24 V
Supply voltage range	12 … 34 VDC
Current consumption at supply voltage	≤ 8 mA

Safety and protection:

Protection class	IP20

Connection data

Feedthrough for measurement conductor	15 mm Ø
Connector	RJ-45

Geometrical Data

Width	35 mm / 1.378 inch
Height from upper-edge of DIN-35 rail	55 mm / 2.165 inch

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Depth	90 mm / 3.543 inch

Mechanical data

Type of mounting	DIN-35 rail

Material Data

Fire load	0.278 MJ
Weight	77.2 g

Environmental Requirements

Surrounding air (operating) temperature	-20 … 70 °C
Surrounding air (storage) temperature	-40 … 85 °C

Standards and specifications

Conformity marking	CE
EMC immunity to interference	EN 61000-6-2
EMC emission of interference	EN 61000-6-4
Standards/specifications	DIN EN 50178

Commercial data

Product Group	6 (Interface Electronics)
Packaging type	BOX
Country of origin	DE
GTIN	4050821204565
Customs Tariff No.	85437090300

Counterpart

Compatible products

transfer module

	Item no.: 289-965 Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier	www.wago.com/289-965
	Item no.: 289-966 Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier; with shield connection	www.wago.com/289-966

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wiring and connectors

Item no.: 750-975
ETHERNET RJ-45 connector, IP20; ETHERNET 10/100 Mbit/s; for field assembly; light gray

www.wago.com/750-975

Downloads

Documentation

Bid Text

789-621 GAEB X81 - Datei	Jul 18, 2019	xml 5.1 kB	Download
789-621 GAEB docx - Datei	Jul 18, 2019	docx 16.4 kB	Download

Additional Information

Disposal; Electrical and electronic equipment, Packaging	V 1.0.0	pdf 265.8 kB	Download

CAD/CAE-Data

CAD data

2D/3D Models 789-621	URL	Download

CAE data

EPLAN Data Portal 789-621	URL	Download
WSCAD Universe 789-621	URL	Download

Installation Notes

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