

Data Sheet | Item Number: 789-621

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

<https://www.wago.com/789-621>



RJ-45 Connector Pin Assignment		Communication Description	
Pin	Function	Modbus Function	Modbus Register Address
1	SD	Address of Measured Value	0x0004
2	NC	Current Measurement	Integer
3	NC		
4	AI (Data)	Description	
5	BI (Data)	Range Function	
6	NC	High Data	
7	NC	OverFlow Current > +85 A	
8	NC	UnderFlow Current < -3 A	

DIP Switch Adjustability			
Address	DIP Switch	Terminating Resistor	DIP Switch 1
1		150 Ohm	
2			
3			
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32			

NOTICE: Only set the Modbus Address in the OFF state.

Short description:

WAGO's 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.

Technical data

Input

Input signal type	Current
Resolution [bit]	15 bits
Measured variable	Current
Input signal (current)	0 ... 140 ADC

Output – MODBUS

Number of devices (max.)	32
Connector	RJ-45
Bus length (max.)	1200 m
Terminating resistor	150 Ω (can be activated via DIP switch 1)

Communication

Communications	Modbus RTU
Interface	RS-485
Transmission channels	Half duplex; 8-bit data; 1 stop bit
Number of devices (max.)	32
Parity	Even
Terminating resistor	150 Ω (can be activated via DIP switch 1)
Bus length (max.)	≤ 1200 m
Transmission rate	19.2 kBd

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	24 VDC
Current consumption at nominal supply voltage	≤ 8 mA

Safety and protection

Protection type	IP20
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Connection Data

Feedthrough for measurement conductor	Ø 15 mm
Connector	RJ-45

Physical data

Width	35 mm / 1.378 inches
Height	90 mm / 3.543 inches
Depth from upper-edge of DIN-rail	55 mm / 2.165 inches

Mechanical data

Mounting type	DIN-35 rail
Housing design	DIN-rail-mount enclosure

Material data

Fire load	0.284 MJ
Weight	77.4 g

Environmental requirements

Ambient temperature (operation)	-20 ... +70 °C
Ambient temperature (storage)	-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 ELECTRONIC)
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85437090300

Product Classification

UNSPSC	41113630
eCl@ss 10.0	27-21-01-23
eCl@ss 9.0	27-21-01-23
ETIM 9.0	EC002475
ETIM 10.0	EC002475
ECCN	NO US CLASSIFICATION

Environmental Product Compliance

CAS-No.	1303-86-2 1317-36-8 7439-92-1 75980-60-8 79-94-7
REACH Candidate List Substance	2,2',6,6'-tetrabromo-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)	77c8081c-6149-43ad-b28b-7c56601f9766
SCIP notification number (Belgium)	e3396f50-a4cf-4f77-a7d7-25320edc160f
SCIP notification number (Bulgaria)	741bfe5a-e1c6-4324-89fd-3f11dde19a58
SCIP notification number (Czech Republic)	4195e3e5-51cf-4daf-a440-fc593724f950
SCIP notification number (Denmark)	da3beef3-994d-4204-affc-190d42a7f58f
SCIP notification number (Finland)	60059775-336d-407c-a2b6-82a275ee0d6e
SCIP notification number (France)	712103bd-a867-4175-a487-ea4bc4b2ad77
SCIP notification number (Germany)	3d38c7f1-e498-4a7c-aa7a-23e6c2a268f8
SCIP notification number (Hungary)	0239df3b-76a4-4702-903d-cf2571aabe95
SCIP notification number (Italy)	d1aa1855-d18e-4153-b74c-fb4a70cbdeb4
SCIP notification number (Netherlands)	87ac9cb5-b0f9-4ac2-b4c8-225d47d5e696
SCIP notification number (Poland)	2eb05be4-e438-4d5e-8d45-22e2e6b2cac4
SCIP notification number (Romania)	54d5e54c-bbb6-43f0-bbaa-877e88f58320
SCIP notification number (Sweden)	6a04aec0-1e65-4e6e-96b8-b63527d4f3f7

Approvals / Certificates

General approvals



Approval	Standard	Certificate Name
EAC GZO Almaty Standart	TP TC 020/2011	EAC CoC 03083



Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 789-621	↓

Documentation

Bid Text

789-621	18.07.2019	xml 4.99 KB	
789-621	18.07.2019	docx 16.03 KB	

CAD/CAE-Data

CAD data

2D/3D Models 789-621



CAE data

EPLAN Data Portal
789-621



WSCAD Universe
789-621



ZUKEN Portal 789-621



1 Compatible Products

1.1 Optional Accessories

1.1.1 Cables and connectors

1.1.1.1 Connector plug



[Item No.: 750-975](#)

ETHERNET RJ-45 connector, IP20;
ETHERNET 10/100 Mbit/s; for field assembly

1.1.2 Interface module

1.1.2.1 Interface module



[Item No.: 289-965](#)

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier



[Item No.: 289-966](#)

Interface module; 2xRJ-45; PCB terminal blocks, double-row; in mounting carrier; with shield connection