

Data sheet | Item number: 789-620
Current signal conditioner; Current input signal: 80 ADC; Modbus RTU;
Supply voltage: 24 VDC

www.wago.com/789-620



789-620

RJ-45-Connector Pin Assignment:

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

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 > +83 A)
102	Underflow (Current < -3 A)

DIP Switch Adjustability

● = ON

Address	2	3	DIP Switch	4	5	6	Terminating Resistor	DIP Switch 1
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® address in the OFF state.

Item description

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.

Data

Technical data

Input

Input signal type	Current
Resolution [bit]	15 bits

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

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Do you have any questions about our products?
We are always happy to take your call at +49 (571) 887-44222.



Measured variable	Current
Input signal (current)	DC 0 ... 80 A

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 (at room temperature)
Temperature coefficient	≤ 0.01 %/K

Power supply

Nominal supply voltage U_S	DC 24 V
Current consumption at nominal supply voltage	≤ 8 mA

Safety and protection

Protection type	IP20
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Connection data

Feedthrough for measurement conductor	15 mm
Connector	RJ-45

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



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	0.283 MJ
Weight	80.2 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)
eCl@ss 10.0	27-21-01-23
eCl@ss 9.0	27-21-01-23
ETIM 9.0	EC002475
ETIM 8.0	EC002475
Recupel Type	
ECCN	NO DATA
PU (SPU)	1 pcs
Packaging type	Box
Country of origin	DE
Customs tariff number	85437090300

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

Environmental Product Compliance

RoHS Compliance Status	Compliant, No Exemption
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Standards and specifications

Standards/specifications	DIN EN 50178
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Commercial data

eCl@ss 9.0
ETIM 9.0
ETIM 8.0
Customs tariff number

Technical data

Input

Input signal type	Current
Input signal (current)	DC 0 ... 80 A

Power supply

Supply voltage range	12 ... 34 VDC
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Mechanical data

Mounting type	DIN-35 rail
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Approvals / Certificates

Approvals for marine applications

Logo	Approval	Additional Approval Text	Certificate name
	DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1
	PRS Polski Rejestr Statków	-	TE/1098 /880590/23

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

Optional accessories

Cables and pluggable connectors

Connector plug



Item no.: 750-975

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

www.wago.com/750-975

Interface module

Interface 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

Downloads

Documentation

Bid Text

789-620	Jul 18, 2019	xml	Download
X81 - Datei		4.9 kB	

789-620	Jul 18, 2019	docx	Download
docx - Datei		16.3 kB	

Additional Information

Disposal and Recycling	V 1.1.0	pdf	Download
Electrical and electronic equipment, Batteries, Packaging	Aug 18, 2022	2.2 MB	

Application Notes

Application note, other

Anbindung eines Stromsensors 789-620 an ein Perspecto Bediengerät (a117001)	1.0.0	zip	Download
Dieses Anleitung beschreibt eine mögliche Anbindung der Stromsensoren 789-620 an ein Perspecto Bediengerät über eine serielle Verbindung unter Verwendung des Modbus-Protokolls.	Aug 22, 2011	1.6 MB	

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Application Note CoDeSys 2.3

Anbindung eines Stromsensors 789-620 an das WAGO-I/O-SYSTEM (a117000)	1.0.0	zip	Download
Dieses Anleitung beschreibt eine mögliche Anbindung der Stromsensoren 789-620 an das WAGO-I/O-System über eine serielle Verbindung unter Verwendung des Modbus-Protokolls.	Aug 22, 2011	245.1 kB	

CAD/CAE-Data

CAD data

2D/3D Models 789-620	URL	Download
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CAE data

EPLAN Data Portal 789-620	URL	Download
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WSCAD Universe 789-620	URL	Download
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ZUKEN Portal 789-620	URL	Download
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Asset Administration Shell

Asset Administration Shell 789-620	URL	Download
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Environmental Product Compliance

Compliance Search

Environmental Product Compliance 789-620	URL	Download
Current signal conditioner; Current input signal: 80 ADC; Modbus RTU; Supply voltage: 24 VDC		

Installation Notes

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