

Data Sheet | Item Number: 789-620

Current signal conditioner; Current input signal: 80 ADC; Modbus RTU; Supply voltage: 24 VDC

<https://www.wago.com/789-620>



789-620

RJ-45 Connector Pin Assignment		Communication Description	
Pin	Function	Modbus Function	Modbus Register Address
1	SD	Address of Measured Value	0x0004
2	RLC	Data of Measurement	Integer
3	RLC		
4	RLC (B Data)		
5	RLC		
6	RLC		
7	RLC		
8	RLC		

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

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	62.6 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	
RoHS Compliance Status	Compliant, No Exemption

Approvals / Certificates

Approvals for marine applications



Approval	Standard	Certificate Name
DNV DNV Germany GmbH	DNV-CG-0339, Aug. 2021	TAA00001D1
PRS Polski Rejestr Statków	-	TE/1098/880590/23

Downloads

Environmental Product Compliance

Compliance Search	
Environmental Product Compliance 789-620	↓

Documentation

Bid Text			
789-620	18.07.2019	xml 4.74 KB	↓
789-620	18.07.2019	docx 15.91 KB	↓

Application Notes

Application Note CoDeSys 2.3			
Anbindung eines Stromsensors 789-620 an das WAGO-I/O-SYS-TEM (a117000)	1.0.0 22.08.2011	zip 239.40 KB	↓

CAD/CAE-Data

CAD data	
2D/3D Models 789-620	↓

CAE data	
EPLAN Data Portal 789-620	↓
WSCAD Universe 789-620	↓
ZUKEN Portal 789-620	↓

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