

**Data sheet**  
 VIPA CPU 014 (014-CEF0R01)

**Technical data**

<b>Order no.</b>	<b>014-CEF0R01</b>
Type	VIPA CPU 014
Module ID	-

**General information**

Note	-
Features	<p>powered by SPEED7          work memory [KB]: 128 - 256          interface [2x RJ45]: active Ethernet PG/OP communication with DHCP support, switch, ModbusTCP master/slave, openCommunication, SmartPROFINET (iDevice and Control up to 8 Device)          interface [RS485]: MPI, PtP: ASCII, STX/ETX, 3964(R), USS master, Modbus master/slave          optional: PROFIBUS master/slave          web server          SD card slot with locking, up to 64 expansion modules, configurable with SPEED7 Studio, SIMATIC Manager and TIA Portal</p>

**Technical data power supply**

Power supply (rated value)	DC 24 V
Power supply (permitted range)	DC 20.4...28.8 V
Reverse polarity protection	yes
Current consumption (no-load operation)	120 mA
Current consumption (rated value)	1 A
Inrush current	3 A
$I^2t$	0.1 A <sup>2</sup> s
Max. current drain at backplane bus	3 A
Max. current drain load supply	10 A
Power loss	6 W

**Communication functions**

PG/OP channel	yes
Global data communication	yes
Number of GD circuits, max.	8
Size of GD packets, max.	22 Byte
S7 basic communication	yes
S7 basic communication, user data per job	76 Byte
S7 communication	yes
S7 communication as server	yes
S7 communication as client	-
S7 communication, user data per job	160 Byte
Number of connections, max.	32

**Functionality Sub-D interfaces**

Type	X2
Type of interface	RS485
Connector	Sub-D, 9-pin, female
Electrically isolated	yes

MPI	yes
MP2I (MPI/RS232)	-
DP master	-
DP slave	-
Point-to-point interface	yes
5V DC Power supply	max. 90mA, isolated
24V DC Power supply	max. 100mA, non-isolated

Type	X3
Type of interface	RS485
Connector	Sub-D, 9-pin, female
Electrically isolated	yes
MPI	yes
MP2I (MPI/RS232)	-
DP master	optional
DP slave	optional
Point-to-point interface	-
5V DC Power supply	max. 90mA, isolated
24V DC Power supply	max. 100mA, non-isolated

#### Functionality MPI

Number of connections, max.	32
PG/OP channel	yes
Routing	yes
Global data communication	yes
S7 basic communication	yes
S7 communication	yes
S7 communication as server	yes
S7 communication as client	-
Transmission speed, min.	19.2 kbit/s
Transmission speed, max.	12 Mbit/s

#### Functionality PROFIBUS master

PG/OP channel	yes
Routing	yes
S7 basic communication	yes
S7 communication	yes
S7 communication as server	yes
S7 communication as client	-
Activation/deactivation of DP slaves	-
Direct data exchange (slave-to-slave communication)	-
DPV1	yes
Transmission speed, min.	9.6 kbit/s
Transmission speed, max.	12 Mbit/s
Number of DP slaves, max.	124
Address range inputs, max.	2 KB
Address range outputs, max.	2 KB
User data inputs per slave, max.	244 Byte
User data outputs per slave, max.	244 Byte

**Functionality PROFIBUS slave**

PG/OP channel	yes
Routing	yes
S7 communication	yes
S7 communication as server	yes
S7 communication as client	-
Direct data exchange (slave-to-slave communication)	-
DPV1	yes
Transmission speed, min.	9.6 kbit/s
Transmission speed, max.	12 Mbit/s
Automatic detection of transmission speed	-
Transfer memory inputs, max.	244 Byte
Transfer memory outputs, max.	244 Byte
Address areas, max.	32
User data per address area, max.	32 Byte

**Point-to-point communication**

PtP communication	yes
Interface isolated	yes
RS232 interface	-
RS422 interface	-
RS485 interface	yes
Connector	Sub-D, 9-pin, female
Transmission speed, min.	150 bit/s
Transmission speed, max.	115.5 kbit/s
Cable length, max.	500 m

**Point-to-point protocol**

ASCII protocol	yes
STX/ETX protocol	yes
3964(R) protocol	yes
RK512 protocol	-
USS master protocol	yes
Modbus master protocol	yes
Modbus slave protocol	yes
Special protocols	-

**Functionality RJ45 interfaces**

Type	X1
Type of interface	Ethernet 10/100 MBit Switch
Connector	RJ45
Electrically isolated	yes
PG/OP channel	yes
Number of connections, max.	4
Productive connections	yes

**Ethernet communication via PG/OP**

Number of productive connections via PG/OP, max.	4
Number of productive connections by Siemens NetPro, max.	4

S7 connections	BSEND, BRCV, GET, PUT, Connection of active and passive data handling
User data per S7 connection, max.	64 KB
TCP-connections	FETCH PASSIV, WRITE PASSIV, Connection of passive data handling
User data per TCP connection, max.	8 KB
ISO on TCP connections (RFC 1006)	FETCH PASSIV, WRITE PASSIV, Connection of passive data handling
User data per ISO connection, max.	8 KB

## Ethernet open communication via PG/OP

Number of configurable connections, max.	4
ISO on TCP connections (RFC 1006)	TSEND, TRCV, TCON, TDISCON
User data per ISO on TCP connection, max.	32 KB
TCP-Connections native	TSEND, TRCV, TCON, TDISCON
User data per native TCP connection, max.	32 KB
User data per ad hoc TCP connection, max.	1460 Byte
UDP-connections	TUSEND, TURCV
User data per UDP connection, max.	1472 KB

## Management & diagnosis

Protocols	ICMP DCP DHCP via PG/OP
Web based diagnosis	-
NCM diagnosis	-

## Housing

Material	PPE / PPE GF10
Mounting	Profile rail 35 mm

## Mechanical data

Dimensions (WxHxD)	131.5 mm x 109 mm x 83 mm
Net weight	290 g
Weight including accessories	290 g
Gross weight	325 g

## Environmental conditions

Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C

## Certifications

UL certification	in preparation
KC certification	in preparation