

Data sheet

VIPA CPU 013C (013-CCF0R00)

Technical data

Order no.	013-CCF0R00
Type	VIPA CPU 013C
Module ID	-
General information	
Note	-
Features	powered by SPEED7 work memory [KB]: 64 - 128 onboard 16 DI / 12 DO / 2 AI [voltage 0...10 V] / 4 Counter / 2 [PWM/Pulse Train] 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

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)	360 mA
Inrush current	3 A
$I_{\Delta t}$	0.1 A ² s
Max. current drain at backplane bus	1 A
Max. current drain load supply	6 A
Power loss	7 W
Number of outputs	1
Output voltage (typ)	L+ (-1.5 V)
Output voltage (rated value)	300 mA
Short-circuit protection	yes, electronic
Binding of potential	Power supply of PLC

Communication functions

PG/OP channel	yes
Global data communication	yes
Number of GD circuits, max.	8
Size of GD packets, max.	54 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
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PWM data

PWM channels	2
PWM time basis	1 µs / 0.1 ms / 1 ms
Period length	50µs...65.535ms / 0.1...87ms / 1...87ms
Minimum pulse width	0...0.5 * Period duration
Type of output	Highside

Functionality Sub-D interfaces

Type	X3
Type of interface	RS485
Connector	Sub-D, 9-pin, female
Electrically isolated	yes
MPI	yes
MP ² I (MPI/RS232)	-
DP master	optional
DP slave	optional
Point-to-point interface	yes
5V DC Power supply	max. 90mA, isolated
24V DC Power supply	max. 100mA, non-isolated

Type	-
Type of interface	-
Connector	-
Electrically isolated	-
MPI	-
MP ² I (MPI/RS232)	-
DP master	-
DP slave	-
Point-to-point interface	-
5V DC Power supply	-
24V DC Power supply	-

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.	32
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	yes
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	-
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Functionality RJ45 interfaces

Type	X1/X2
Type of interface	Ethernet 10/100 MBit Switch
Connector	2 x RJ45
Electrically isolated	yes
PG/OP channel	yes
Number of connections, max.	4
Productive connections	yes
Fieldbus	-

Type	-
Type of interface	-
Connector	-
Electrically isolated	-
PG/OP channel	-
Number of connections, max.	-
Productive connections	-
Fieldbus	-

Ethernet communication via PG/OP

Number of productive connections via PG/OP, max.	2
Number of productive connections by Siemens NetPro, max.	2
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.	2
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 Byte

Housing

Material	PPE / PPE GF10
Mounting	Profile rail 35 mm

Mechanical data

Dimensions (WxHxD)	147 mm x 100 mm x 83 mm
Net weight	320 g

Weight including accessories	320 g
Gross weight	355 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