Data sheet



*** SPARE PART*** SIMATIC S7-300 CPU317F-2 PN/DP, CENTRAL PROCESSING UNIT WITH 1024 KBYTE WORKING MEMORY, 1. INTERFACE MPI/DP 12MBIT/S, 2. INTERFACE ETHERNET PROFINET, MICRO MEMORY CARD NECESSARY FOR USE WITH SOFTWARE OPTION S7 DISTRIBUTED SAFETY V5.4 OR HIGHER

Figure similar

General information	
Hardware product version	01
Firmware version	V2.6
Engineering with	
Programming package	STEP 7 V5.4 SP2 or higher, S7 Distributed Safety V5.4 or higher
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines (recommendation)	2 A min.
Input current	
Current consumption (rated value)	650 mA
Current consumption (in no-load operation), typ.	100 mA
Inrush current, typ.	2.5 A
l²t	1 A ² ·s

Power loss	
Power loss, typ.	3.5 W
Memory Work memory	
• integrated	1 Mbyte; For program and data
expandable	No
Load memory	140
	Yes
• Plug-in (MMC)	8 Mbyte
• Plug-in (MMC), max.	
 Data management on MMC (after last programming), min. 	10 y
Backup	
·	Yes; Guaranteed by MMC (maintenance-free)
• present	Yes; Program and data
without battery	res, rrogiani and data
CPU processing times	
for bit operations, typ.	0.05 μs
for bit operations, max.	0.05 μs
for word operations, typ.	0.2 μs
for fixed point arithmetic, typ.	0.2 μs
for floating point arithmetic, typ.	1 μs
CPU-blocks	
Number of blocks (total)	2 048; (DBs, FCs, FBs); the maximum number of loadable blocks can be reduced by the MMC used.
DB	
Number, max.	2 047; Number band: 1 to 2047
• Size, max.	64 kbyte
FB	
Number, max.	2 048; Number range: 0 to 2047
• Size, max.	64 kbyte
FC	
• Number, max.	2 048; Number range: 0 to 2047
• Size, max.	64 kbyte
OB	
• Size, max.	64 kbyte
Size, max.Number of free cycle OBs	1; OB 1
 Number of free cycle OBs 	1; OB 1
Number of free cycle OBsNumber of time alarm OBsNumber of delay alarm OBs	1; OB 1 1; OB 10
 Number of free cycle OBs Number of time alarm OBs Number of delay alarm OBs Number of cyclic interrupt OBs 	1; OB 1 1; OB 10 2; OB 20, 21 4; OB 32, 33, 34, 35
 Number of free cycle OBs Number of time alarm OBs Number of delay alarm OBs Number of cyclic interrupt OBs Number of process alarm OBs 	1; OB 1 1; OB 10 2; OB 20, 21 4; OB 32, 33, 34, 35 1; OB 40
 Number of free cycle OBs Number of time alarm OBs Number of delay alarm OBs Number of cyclic interrupt OBs 	1; OB 1 1; OB 10 2; OB 20, 21 4; OB 32, 33, 34, 35

 Number of startup OBs 	1; OB 100
 Number of asynchronous error OBs 	6; OB 80, 82, 83, 85, 86, 87
 Number of synchronous error OBs 	2; OB 121, 122
Nesting depth	
per priority class	16
 additional within an error OB 	4

additional within an error OB	7
Counters, timers and their retentivity	
S7 counter	
• Number	512
of which retentive without battery	
— can be set	Yes
— lower limit	0
— upper limit	511
— preset	8
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	8
Counting range	
— can be set	Yes
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Type	SFB
• Number	Unlimited (limited only by RAM capacity)
S7 times	540
Number	512
of which retentive without battery	No.
— adjustable	Yes
— lower limit	0
— upper limit	511
Retentivity	V
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	No retentivity
Time range	10 mg
— lower limit	10 ms
— upper limit	9 990 s

IEC timer	
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	
retentive data area in total	All, max. 256 KB
Flag	
Number, max.	4 096 byte
Retentivity available	Yes; From MB 0 to MB 4095
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
Number, max.	2 047; from DB 1 to DB 2047
• Size, max.	64 kbyte
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
• per priority class, max.	1 024 byte
Address area	
Address area I/O address area	
• Inputs	8 kbyte
Outputs	8 kbyte
of which distributed	,
— Inputs	8 kbyte
— Outputs	8 kbyte
Process image	Chayte
• Inputs	2 048 byte
• Outputs	2 048 byte
Inputs, adjustable	2 048 byte
Outputs, adjustable	2 048 byte
Inputs, default	1 024 byte
Outputs, default	1 024 byte
Digital channels	. 52 · 5/10
• Inputs	65 536
— of which central	1 024
Outputs	65 536
— of which central	1 024
Analog channels	1 02 1
• Inputs	4 096
— of which central	256
Outputs	4 096
- Outputs	1 000

— of which central	256
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	1
• via CP	4
Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	10
Rack	
• Racks, max.	4
Modules per rack, max.	8
Time of day	
Clock	
 Hardware clock (real-time) 	Yes
 retentive and synchronizable 	Yes
Backup time	6 wk; At 40 °C ambient temperature
 Deviation per day, max. 	10 s
Operating hours counter	
Number	4
Number/Number range	0 to 3
Range of values	0 to 2^31 hours (when using SFC 101)
Granularity	1 hour
• retentive	Yes; Must be restarted at each restart
Clock synchronization	
• supported	Yes
• to MPI, master	Yes
• to MPI, slave	Yes
• to DP, master	Yes; With DP slave only slave clock
• to DP, slave	Yes
• in AS, master	Yes
• in AS, slave	Yes
Digital inputs	
integrated channels (DI)	0
Digital outputs	
integrated channels (DO)	0
Analog inputs	
integrated channels (AI)	0

Analog outputs	
integrated channels (AO)	0
Interfaces	
Number of industrial Ethernet interfaces	1
Number of RS 485 interfaces	2
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
Physics	RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	
• MPI	Yes
 PROFIBUS DP master 	Yes
 PROFIBUS DP slave 	Yes
Point-to-point connection	No
MPI	
Number of connections	16
• Transmission rate, max.	12 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
— Global data communication	Yes
 S7 basic communication 	Yes
— S7 communication	Yes
— S7 communication, as client	No
— S7 communication, as server	Yes
DP master	
Transmission rate, max.	12 Mbit/s
 Number of DP slaves, max. 	124
Services	
— PG/OP communication	Yes
— Routing	Yes
— Global data communication	No
— S7 basic communication	Yes
— S7 communication	Yes
— S7 communication, as client	No
— S7 communication, as server	Yes
— Equidistance	Yes
Isochronous mode	Yes; OB 61
— SYNC/FREEZE	Yes
OTHOR NEELL	

 Activation/deactivation of DP slaves 	Yes
— DPV1	Yes
DP slave	
Transmission rate, max.	12 Mbit/s
automatic baud rate search	Yes; only with passive interface
Address area, max.	32
 User data per address area, max. 	32 byte
Services	
— Routing	Yes; with interface active
 Global data communication 	No
— S7 basic communication	Yes
— S7 communication	Yes
 S7 communication, as client 	No
— S7 communication, as server	Yes
 Direct data exchange (slave-to-slave communication) 	Yes
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Z. Interface	
Interface type	PROFINET
Interface type Physics	PROFINET Ethernet
Interface type Physics Isolated	
Physics	Ethernet
Physics Isolated	Ethernet Yes
Physics Isolated Power supply to interface (15 to 30 V DC), max.	Ethernet Yes 0 mA
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate	Ethernet Yes 0 mA
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality	Ethernet Yes 0 mA Yes; 10/100 Mbit/s
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI	Ethernet Yes 0 mA Yes; 10/100 Mbit/s
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFINET CBA	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFIBUS DP master	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFINET CBA • PROFIBUS DP master • PROFIBUS DP slave	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFINET CBA • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection PROFINET IO Controller	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No No
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection PROFINET IO Controller • Transmission rate, max.	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No No
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Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No No No No Yes
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication — Routing	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No No No Yes Yes Yes Yes Yes Yes; with loadable FBs, max. configurable connections: 16, max.
Physics Isolated Power supply to interface (15 to 30 V DC), max. automatic detection of transmission rate Functionality • MPI • PROFINET IO Controller • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection PROFINET IO Controller • Transmission rate, max. Services — PG/OP communication — Routing — S7 communication	Ethernet Yes 0 mA Yes; 10/100 Mbit/s No Yes; Firmware version V2.3 and higher Yes No No No No Yes Yes Yes Yes Yes Yes Yes Ye

- Inputs, max.	— Updating time	1 to 512 ms (minimum value depends on communication share set for PROFINET I/O, on the number of I/O devices, and on the volume of configured user data)
- Outputs, max User data consistency, max. - User data consistency, max. - User data consistency, max. - Outputs, max	Address area	
- User data consistency, max. 256 byte PROFINET CBA • acyclic transmission • cyclic transmission Pes Communication functions PC/GO communication FO/GO communication • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, transmitter, max. • Number of GD packets, transmitter, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max. S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max. S7 communication • supported • as server • as client CP and loadable FB • User data per job, max. S5 compatible communication • supported • supported • syes; via integrated PROFINET interface and loadable FB or via CP and loadable FB • User data per job, max. S5 compatible communication • supported • supported • syes; via CP and loadable FC Open IE communication • supported • syes; via integrated PROFINET interface and loadable FBs • User data per job, max. — Data length, max. B 1 460 byte PROFINET CBA (at set setpoint communication load) • Setpoint for the CPU communication load • Number of remote interconnection partners 226 byte 9es - Ves; via integrated PROFINET interface and loadable FBs - Number of remote interconnection partners 50 % 9umber of remote interconnection partners 9umber of remote interconnection partners 9umber of remote interconnection partners	— Inputs, max.	8 kbyte
PROFINET CBA • acyclic transmission • cyclic transmission • cyclic transmission PGOP communication • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, receiver, max. • Size of GD packets, transmitter, max. • Size of GD packets, max. • S	— Outputs, max.	8 kbyte
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PG/OP communication Yes	acyclic transmission	Yes
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PG/OP communication Yes		
Global data communication • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, transmitter, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packets, max. • Size of GD packets (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • Size of GD packet (fo which consistent), max. • Yes • S		Voo
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Size of GD packet (of which consistent), max. 22 byte S7 basic communication Supported User data per job, max. User data per job (of which consistent), max. F6 byte Green with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server) S7 communication S8 server S9	•	
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User data per job (of which consistent), max. 76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server) 9 communication 9 supported 9 as server 9 as client 9 User data per job, max. 9 User data per job, max. 9 See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) 9 St compatible communication 9 supported 9 Yes; via CP and loadable FC Open IE communication 9 TCP/IP 9 Yes; via integrated PROFINET interface and loadable FBs 9 Number of connections, max. 1 460 byte PROFINET CBA (at set setpoint communication load) 9 Setpoint for the CPU communication load 9 Number of remote interconnection partners 32	• supported	Yes
X_PUT or X_GET as server) S7 communication • supported • as server • as client • User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) S5 compatible communication • supported • supported • TCP/IP — Number of connections, max. — Data length, max. PROFINET CBA (at set setpoint communication load) • See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) Yes; via CP and loadable FC Yes; via integrated PROFINET interface and loadable FBs 8 — Data length, max. 1 460 byte PROFINET CBA (at set setpoint communication load) • Setpoint for the CPU communication load • Number of remote interconnection partners 32	User data per job, max.	76 byte
 supported as server as client Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) S5 compatible communication supported Yes; via CP and loadable FC Open IE communication TCP/IP Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners 32 	 User data per job (of which consistent), max. 	
as server as client Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) S5 compatible communication supported Yes; via CP and loadable FC Open IE communication TCP/IP Yes; via integrated PROFINET interface and loadable FBs Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners Yes; via integrated PROFINET interface and loadable FBs 8 1 460 byte	S7 communication	
Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) St compatible communication supported Yes; via CP and loadable FC Open IE communication TCP/IP Yes; via integrated PROFINET interface and loadable FBs Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners Yes; via integrated PROFINET interface and loadable FBs 8 1 460 byte	• supported	Yes
CP and loadable FB • User data per job, max. See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication) S5 compatible communication • supported Yes; via CP and loadable FC Open IE communication • TCP/IP — Number of connections, max. — Data length, max. PROFINET CBA (at set setpoint communication load) • Setpoint for the CPU communication load • Number of remote interconnection partners CP and loadable FB Yes; via CP and loadable FC Yes; via integrated PROFINET interface and loadable FBs 1 460 byte	• as server	Yes
and of the SFCs/FCs of S7 Communication) S5 compatible communication • supported Yes; via CP and loadable FC Open IE communication • TCP/IP Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) • Setpoint for the CPU communication load • Number of remote interconnection partners and of the SFCs/FCs of S7 Communication) Yes; via CP and loadable FC Yes; via integrated PROFINET interface and loadable FBs 1 460 byte	• as client	· · · · · · · · · · · · · · · · · · ·
Supported Yes; via CP and loadable FC Open IE communication TCP/IP Yes; via integrated PROFINET interface and loadable FBs Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners Yes; via CP and loadable FC Yes; via CP and loadable FC 50 8 50 50 50 50 50 50 50 50	User data per job, max.	
Open IE communication • TCP/IP — Number of connections, max. — Data length, max. PROFINET CBA (at set setpoint communication load) • Setpoint for the CPU communication load • Number of remote interconnection partners Yes; via integrated PROFINET interface and loadable FBs 8 1 460 byte 50 % 32	S5 compatible communication	
 ◆ TCP/IP Yes; via integrated PROFINET interface and loadable FBs Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners 32 	• supported	Yes; via CP and loadable FC
 Number of connections, max. Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners 32 	Open IE communication	
— Data length, max. PROFINET CBA (at set setpoint communication load) Setpoint for the CPU communication load Number of remote interconnection partners 1 460 byte 50 % 32	• TCP/IP	Yes; via integrated PROFINET interface and loadable FBs
PROFINET CBA (at set setpoint communication load) • Setpoint for the CPU communication load • Number of remote interconnection partners 32	 Number of connections, max. 	8
 Setpoint for the CPU communication load Number of remote interconnection partners 32 	— Data length, max.	1 460 byte
Number of remote interconnection partners 32	PROFINET CBA (at set setpoint communication load)	
	Setpoint for the CPU communication load	50 %
• Number of functions, master/slave 17	Number of remote interconnection partners	32
	 Number of functions, master/slave 	17

Total of all master/slave connections	1 000
Data length of all incoming connections	4 000 byte
master/slave, max.	
 Data length of all outgoing connections master/slave, max. 	4 000 byte
 Number of device-internal and PROFIBUS interconnections 	500
 Data length of device-internal und PROFIBUS interconnections, max. 	4 000 byte
 Data length per connection, max. 	1 400 byte
Remote interconnections with acyclic transmission	
 — Sampling frequency: Sampling time, min. 	500 ms
 Number of incoming interconnections 	100
 Number of outgoing interconnections 	100
 Data length of all incoming interconnections, max. 	2 000 byte
 Data length of all outgoing interconnections, max. 	2 000 byte
 Data length per connection, max. 	1 400 byte
Remote interconnections with cyclic transmission	
 Transmission frequency: Transmission interval, min. 	10 ms
 Number of incoming interconnections 	200
 Number of outgoing interconnections 	200
 Data length of all incoming interconnections, max. 	2 000 byte
 Data length of all outgoing interconnections, max. 	2 000 byte
 Data length per connection, max. 	450 byte
HMI variables via PROFINET (acyclic)	
 Number of stations that can log on for HMI variables (PN OPC/iMap) 	3; 2x PN OPC/1x iMap
— HMI variable updating	500 ms
 Number of HMI variables 	200
 Data length of all HMI variables, max. 	2 000 byte
PROFIBUS proxy functionality	
— supported	Yes
 Number of linked PROFIBUS devices 	16
 Data length per connection, max. 	240 byte; Slave-dependent
Number of connections	
• overall	32
usable for PG communication	31
 reserved for PG communication 	1

— adjustable for PG communication, min.	1
— adjustable for PG communication, max.	31
 usable for OP communication 	31
 reserved for OP communication 	1
— adjustable for OP communication, min.	1
— adjustable for OP communication, max.	31
 usable for S7 basic communication 	30
 reserved for S7 basic communication 	0
 adjustable for S7 basic communication, 	0
min.	
 adjustable for S7 basic communication, 	30
max.	

S7 message functions	
Number of login stations for message functions, max.	32; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes
simultaneously active Alarm-S blocks, max.	60
Simultaneously active Alami-3 blocks, max.	00
Test commissioning functions	
Status block	Yes

Test commissioning functions	
Status block	Yes
Single step	Yes
Number of breakpoints	2
Status/control	
Status/control variable	Yes
Variables	Inputs, outputs, memory bits, DB, times, counters
Number of variables, max.	30
— of which status variables, max.	30
of which control variables, max.	14
Forcing	
• Forcing	Yes
Forcing, variables	Inputs, outputs
 Number of variables, max. 	10
Diagnostic buffer	
• present	Yes
Number of entries, max.	100

Configuration Configuration software	
• STEP 7	Yes; V5.3 SP3 and higher + HW update
Programming	
Command set	see instruction list
Nesting levels	8

No

— adjustable

System functions (SFC)	see instruction list
 System function blocks (SFB) 	see instruction list
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
Know-how protection	
User program protection/password protection	Yes
Dimensions	
Width	80 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	460 g