SIEMENS

Data sheet

6ES7315-2EH14-0AB0



SIMATIC S7-300 CPU 315-2 PN/DP, Central processing unit with 384 KB work memory, 1st interface MPI/DP 12 Mbit/s, 2nd interface Ethernet PROFINET, with 2-port switch, Micro Memory Card required

General information	
HW functional status	01
Firmware version	V3.2
Product function	
Isochronous mode	Yes; Via PROFIBUS DP or PROFINET interface
Engineering with	
Programming package	STEP 7 V5.5 or higher
Supply voltage	
Rated value (DC)	24 V
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.
Mains buffering	
Mains/voltage failure stored energy time	5 ms
Repeat rate, min.	1 s
Input current	
Current consumption (rated value)	750 mA
Current consumption (in no-load operation), typ.	150 mA
Inrush current, typ.	4 A
l²t	1 A²·s
Power loss	
Power loss, typ.	4.65 W
Memory	
Work memory	
integrated	384 kbyte
• expandable	No
Load memory	
• Plug-in (MMC)	Yes
 Plug-in (MMC), max. 	8 Mbyte
• Data management on MMC (after last programming), min.	10 a
	10 a
min.	10 a Yes; Guaranteed by MMC (maintenance-free)
min. Backup	
min. Backup • present	Yes; Guaranteed by MMC (maintenance-free)
min. Backup • present • without battery	Yes; Guaranteed by MMC (maintenance-free)
min. Backup • present • without battery CPU processing times	Yes; Guaranteed by MMC (maintenance-free) Yes; Program and data
min. Backup • present • without battery CPU processing times for bit operations, typ.	Yes; Guaranteed by MMC (maintenance-free) Yes; Program and data 0.05 μs
min. Backup • present • without battery CPU processing times for bit operations, typ. for word operations, typ.	Yes; Guaranteed by MMC (maintenance-free) Yes; Program and data 0.05 µs 0.09 µs

Number of blocks (total)	1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can be
	reduced by the MMC used.
DB	
 Number, max. 	1 024; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	
• Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	
• Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
OB	
• Size, max.	64 kbyte
 Number of free cycle OBs 	1; OB 1
 Number of time alarm OBs 	1; OB 10
 Number of delay alarm OBs 	2; OB 20, 21
 Number of cyclic interrupt OBs 	4; OB 32, 33, 34, 35
 Number of process alarm OBs 	1; OB 40
 Number of DPV1 alarm OBs 	3; OB 55, 56, 57
 Number of isochronous mode OBs 	1; OB 61
Number of startup OBs	1; OB 100
Number of asynchronous error OBs	6; OB 80, 82, 83, 85, 86, 87 (OB83 only for PROFINET IO)
 Number of synchronous error OBs 	2; OB 121, 122
Nesting depth	
 per priority class 	16
 additional within an error OB 	4
Counters, timers and their retentivity	
S7 counter	
• Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	Z 0 to Z 7
Counting range	
— adjustable	Yes
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Туре	SFB
• Number	Unlimited (limited only by RAM capacity)
S7 times	
• Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	No retentivity
Time range	
— 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 (incl. timers, counters, flags), max.	128 kbyte
Flag	120 Myto
• Size, max.	2 048 byte
Retentivity available	Yes; MB 0 to MB 2 047

Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
 Retentivity adjustable 	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
 per priority class, max. 	32 768 byte; Max. 2048 bytes per block
Address area	
I/O address area	
Inputs	2 048 byte
Outputs	2 048 byte
of which distributed	
— Inputs	2 048 byte
— Outputs	2 048 byte
Process image	
• Inputs	2 048 byte
Outputs	2 048 byte
Inputs, adjustable	2 048 byte
Outputs, adjustable	2 048 byte
Inputs, default	128 byte
Outputs, default	128 byte
Subprocess images	
Number of subprocess images, max.	1; With PROFINET IO, the length of the user data is limited to 1600 bytes
Digital channels	
Inputs	16 384
— of which central	1 024
Outputs	16 384
— of which central	1 024
Analog channels	
Inputs	1 024
— of which central	256
Outputs	1 024
— 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
• CP, LAN Rack	
• Racks, max.	4
	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; Typ.: 2 s
 Behavior of the clock following POWER-ON 	Clock continues running after POWER OFF
 Behavior of the clock following expiry of backup period 	the clock continues at the time of day it had when power was switched off
Operating hours counter	
Number	1
Number/Number range	0
Range of values	0 to 2^31 hours (when using SFC 101)
• Granularity	1h
retentive	Yes; Must be restarted at each restart
Clock synchronization	

	Ver
• 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
 on Ethernet via NTP 	Yes; As client
Digital inputs	
Number of digital inputs	0
Digital outputs	
Number of digital outputs	0
Analog inputs	
Number of analog inputs	0
Analog outputs	
Number of analog outputs	0
Interfaces	
Number of industrial Ethernet interfaces	1; 2 ports (switch) RJ45
Number of PROFINET interfaces	1; 2 ports (switch) RJ45
Number of RS 485 interfaces	1; Combined MPI / PROFIBUS DP
Number of RS 422 interfaces	0
1. Interface	
	Integrated DC 495 interface
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	
• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	
• MPI	Yes
PROFIBUS DP master	Yes
 PROFIBUS DP slave 	Yes
Point-to-point connection	No
MPI	
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; but via CP and loadable FB
— S7 communication, as server	Yes
PROFIBUS 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; I blocks only
— S7 communication	Yes
- S7 communication, as client	No
— S7 communication, as server	Yes
— Equidistance	Yes
 Equidistance Isochronous mode 	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS
	DP or PROFINET IO
- SYNC/FREEZE	Yes
 Activation/deactivation of DP slaves 	Yes
 Number of DP slaves that can be simultaneously activated/deactivated, max. 	8
 — Direct data exchange (slave-to-slave 	Yes; as subscriber

communication)	
— DPV1	Yes
Address area	
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP slave	Z KUYIC
— Inputs, max.	244 byte
— Outputs, max.	244 byte
PROFIBUS DP slave	244 Dyte
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	52 byte
— PG/OP communication	Yes
- Routing	Yes; Only with active interface
— Global data communication	No
- S7 basic communication	No Yes
- S7 communication	
— S7 communication, as client	No
— S7 communication, as server	Yes; Connection configured on one side only
 — Direct data exchange (slave-to-slave communication) 	Yes
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Interface type	PROFINET
Isolated	Yes
automatic detection of transmission rate	Yes; 10/100 Mbit/s
Autonegotiation	Yes
Autocrossing	Yes
Change of IP address at runtime, supported	Yes
Interface types	
RJ 45 (Ethernet)	Yes
Number of ports	2
integrated switch	Yes
Protocols	
• MPI	No
PROFINET IO Controller	Yes; Also simultaneously with IO-Device functionality
PROFINET IO Device	Yes; Also simultaneously with IO Controller functionality
PROFINET CBA	Yes
PROFIBUS DP master	No
PROFIBUS DP slave	No
Open IE communication	Yes; Via TCP/IP, ISO on TCP, and UDP
Web server	
Media redundancy	Yes
PROFINET IO Controller	
Transmission rate, max.	100 Mbit/s
Fransmission rate, max. Services	
— PG/OP communication	Yes
	Yes
— Routing — S7 communication	
	Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32
— Isochronous mode	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS DP or PROFINET IO
— IRT	Yes
— Shared device	Yes
— Prioritized startup	Yes
 Number of IO devices with prioritized startup, max. 	32
 — Number of connectable IO Devices, max. 	128

	<u>0</u> 4
 Of which IO devices with IRT, max. of which in line, max 	64
— of which in line, max.	64
 — Number of IO Devices with IRT and the option "high flexibility" 	128
— of which in line, max.	61
— Number of connectable IO Devices for RT, max.	128
— of which in line, max.	128
— Activation/deactivation of IO Devices	Yes
— Number of IO Devices that can be simultaneously	8
activated/deactivated, max. — IO Devices changing during operation (partner	Yes
ports), supported	
 Number of IO Devices per tool, max. 	8
 Device replacement without swap medium 	Yes
— Send cycles	$250\ \mu\text{s},500\ \mu\text{s},1\ \text{ms};2\ \text{ms},4\ \text{ms}$ (not in the case of IRT with "high flexibility" option)
— Updating time	250 µs to 512 ms (depending on the operating mode, see Manual "S7-300 CPU 31xC and CPU 31x, technical Data" for more details)
Address area	
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
— User data consistency, max.	1 024 byte
PROFINET IO Device	
Services	
— PG/OP communication	Yes
- Routing	Yes
— S7 communication	Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32
— Isochronous mode	No
— IRT	Yes
— PROFlenergy	Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-
— Shared device	Device Yes
 — Number of IO Controllers with shared device, max. 	2
Transfer memory	
— Inputs, max.	1 440 byte; Per IO Controller with shared device
— Outputs, max.	1 440 byte; Per IO Controller with shared device
Submodules	
— Number, max.	64
— User data per submodule, max.	1 024 byte
PROFINET CBA	
acyclic transmission	Yes
cyclic transmission	Yes
Open IE communication	
Number of connections, max.	8
 Local port numbers used at the system end 	o 0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535
 Keep-alive function, supported 	Yes
Protocols	
PROFIsafe	No
Redundancy mode	
Media redundancy	
— Switchover time on line break, typ.	200 ms; PROFINET MRP
— Number of stations in the ring, max.	50
Open IE communication	
TCP/IP	Ver: via integrated DDOEINET interface and leadable EBa
	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max.	
— Data length for connection type 01H, max.	8
 Data length for connection type 11H, max. 	1 460 byte
	1 460 byte 32 768 byte
- several passive connections per port, supported	1 460 byte 32 768 byte Yes
 several passive connections per port, supported ISO-on-TCP (RFC1006) 	1 460 byte 32 768 byte Yes Yes; via integrated PROFINET interface and loadable FBs
- several passive connections per port, supported	1 460 byte 32 768 byte Yes

• UDP	Yes; via integrated PROFINET interface and loadable FBs
- Number of connections, max.	8
— Data length, max.	1 472 byte
Web server	
supported	Yes
 User-defined websites 	Yes
Number of HTTP clients	5
communication functions / header	
PG/OP communication	Yes
Data record routing	Yes
Global data communication	
supported	Yes
 Number of GD loops, max. 	8
 Number of GD packets, max. 	8
 Number of GD packets, transmitter, max. 	8
 Number of GD packets, receiver, max. 	8
 Size of GD packets, max. 	22 byte
 Size of GD packet (of which consistent), max. 	22 byte
S7 basic communication	
supported	Yes
• User data per job, max.	76 byte
• 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)
S7 communication	
supported	Yes
• as server	Yes
• 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
	· · · · ·
• supported	· · · · ·
supported communication functions / PROFINET CBA (with set target commu	unication load) / header
supported communication functions / PROFINET CBA (with set target commu Setpoint for the CPU communication load number of remote connection partners / with PROFINET	unication load) / header 50 %
supported communication functions / PROFINET CBA (with set target commu Setpoint for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA	unication load) / header 50 % 32
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave 	unication load) / header 50 % 32 30
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET 	unication load) / header 50 % 32 30 1 000
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET 	unication load) / header 50 % 32 30 1 000 4 000 byte
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave number of the input variables / with PROFINET CBA / for master or slave data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave number of the output variables / with PROFINET CBA / for master or slave 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave adata volume / of the output variables / with PROFINET CBA / for master or slave number of internal and PROFIBUS interconnections / with PROFINET CBA / maximum data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / maximum 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave number of internal and PROFIBUS interconnections / with PROFINET CBA / maximum data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500 4 000 byte 1 400 byte 1 400 byte 1 400 byte
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave number of internal and PROFIBUS interconnections / with PROFINET CBA / maximum data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / with PROFINET CBA / per connection / maximum 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500 4 000 byte 1 400 byte
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave adata volume / of the output variables / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / with PROFINET CBA / per connection / maximum performance data / PROFINET CBA / per connection / maximum 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500 4 000 byte 1 400 byte 1 400 byte 1 400 byte
 supported communication functions / PROFINET CBA (with set target communication for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / with PROFINET CBA / per connection / maximum performance data / PROFINET CBA / per connection / maximum performance data / PROFINET CBA / remote interconnections / in the case of acyclic transmission / with PROFINET CBA number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500 4 000 byte 500 4 000 byte 1 400 byte / with acyclic transfer / header 500 ms
 supported communication functions / PROFINET CBA (with set target commutes Setpoint for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave number of internal and PROFIBUS interconnections / with PROFINET CBA / maximum data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / with PROFINET CBA / per connection / maximum data volume / with PROFINET CBA / per connection / maximum 	unication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500 4 000 byte 500 4 000 byte 500 4 000 byte 500 4 000 byte 1 400 byte / with acyclic transfer / header 500 ms 100
 supported communication functions / PROFINET CBA (with set target commute Setpoint for the CPU communication load number of remote connection partners / with PROFINET CBA number of technological functions / with PROFINET CBA / for master or slave number of connections / with PROFINET CBA / for master or slave / total data volume / of the input variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of the output variables / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / maximum data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave data volume / with PROFINET CBA / per connection / maximum data volume / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA / maximum — number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA / maximum — number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum — number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum — number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum 	Inication load) / header 50 % 32 30 1 000 4 000 byte 4 000 byte 500 4 000 byte 500 4 000 byte 500 4 000 byte 500 4 000 byte 1 400 byte / with acyclic transfer / header 500 ms 100 100

with PROFINET CBA / per connection / maximum	
performance data / PROFINET CBA / remote interconnection	/ with cyclic transfer / header
 update time / of the remote interconnections / with cyclical transfer / with PROFINET CBA 	10 ms
 — number of remote connections to input variables / with PROFINET CBA / with cyclic transfer / maximum 	200
 — number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum 	200
 — data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum 	2 000 byte
 — data volume / as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum 	2 000 byte
 — data volume / as user data for remote interconnections / with cyclical transfer / with PROFINET CBA / per connection / maximum 	450 byte
performance data / PROFINET CBA / HMI variables via PROF	INET / acyclic / header
 — number of connectable HMI stations / for HMI variables / in the case of acyclic transmission / with PROFINET CBA 	3; 2x PN OPC/1x iMap
 update time / of the HMI variables / in the case of acyclic transmission / with PROFINET CBA 	500 ms
 number of HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum 	200
 — data volume / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum 	2 000 byte
performance data / PROFINET CBA / PROFIBUS proxy function	ionality / header
 product function / with PROFINET CBA / PROFIBUS proxy functionality 	Yes
 — number of coupled PROFIBUS devices / with PROFIBUS functionality 	16
 — data volume / with PROFIBUS proxy functionality / with PROFINET CBA / per connection / maximum 	240 byte; Slave-dependent
Number of connections	
• overall	16
usable for PG communication	15
— reserved for PG communication	1
— adjustable for PG communication, min.	1
— adjustable for PG communication, max.	15
 usable for OP communication 	15
 reserved for OP communication 	1
 — adjustable for OP communication, min. 	1
 — adjustable for OP communication, max. 	15
 usable for S7 basic communication 	14
 reserved for S7 basic communication 	0
 — adjustable for S7 basic communication, min. 	0
 — adjustable for S7 basic communication, max. 	14
 usable for S7 communication 	14
- reserved for S7 communication	0
 — adjustable for S7 communication, min. 	
	0
— adjustable for S7 communication, max.	0 14
•	
- adjustable for S7 communication, max.	14
— adjustable for S7 communication, max.total number of instances, max.	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max.
— adjustable for S7 communication, max.total number of instances, max.usable for routing	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max.
 — adjustable for S7 communication, max. • total number of instances, max. • usable for routing S7 message functions 	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max. 16; Depending on the configured connections for PG/OP and S7 basic
 adjustable for S7 communication, max. total number of instances, max. usable for routing S7 message functions Number of login stations for message functions, max.	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max. 16; Depending on the configured connections for PG/OP and S7 basic communication
	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max. 16; Depending on the configured connections for PG/OP and S7 basic communication Yes
 adjustable for S7 communication, max. total number of instances, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max. 16; Depending on the configured connections for PG/OP and S7 basic communication Yes 300
 adjustable for S7 communication, max. total number of instances, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. Test commissioning functions Status block	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max. 16; Depending on the configured connections for PG/OP and S7 basic communication Yes 300 Yes; Up to 2 simultaneously
 adjustable for S7 communication, max. total number of instances, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. Test commissioning functions 	14 32 X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max. 16; Depending on the configured connections for PG/OP and S7 basic communication Yes 300

Status/control variable

Status/control

Yes

 Number of variables, max. - of which status variables, max. - of which status variables, max. - of which control variables, max. Forcing Forcing Yes Forcing, variables Inputs, outputs Number of variables, max. 10 Diagnostic turifier - present - present - of which potential proof - of child - of potential proof - of p	Variables	Inputs, outputs, memory bits, DB, times, counters
- of which status variables, max. 14 Forcing - forcing - forcing - forcing, variables, max. 10 Diagnostic buffer - forcing, variables, max. 10 Diagnostic buffer		
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configuration / programming / header • Command set see instruction list • Nesting levels 8 • 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 More totion Yes Width 40 mm Height 125 mm Depth 130 mm	Configuration software	
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