SIEMENS

Data sheet

6ES7315-2FJ14-0AB0



SIMATIC S7-300 CPU315F-2 PN/DP, Central processing unit with 512 KB work memory, 1st interface MPI/DP 12 Mbit/s, 2nd interface Ethernet PROFINET, with 2-port switch, Micro Memory Card required

Figure similar

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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, Distributed Safety V5.4 SP4
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 A ² ·s
Power loss	
Power loss, typ.	4.65 W
Memory	
Work memory	
• integrated	512 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
Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.05 μs
for word operations, typ.	0.09 μs
for fixed point arithmetic, typ.	0.12 μs
for floating point arithmetic, typ.	0.45 μs

CPU-blocks	
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 may	1.024: Number range: 0 to 7000
Number, max. Size may.	1 024; Number range: 0 to 7999 64 kbyte
• Size, max.	04 kbyte
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
OB	o . najo
• 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	Voc
— adjustable — lower limit	Yes 0
— upper limit — upper limit	999
— upper limit	355
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	2
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	
• 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	230
	2
Number of expansion units, max. Number of DP masters	3
	4
• integrated	1
• via CP	4
Number of operable FMs and CPs (recommended)	0
• 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; 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	1 h
• retentive	Yes; Must be restarted at each restart

Clark a mahanization	
Clock synchronization	Voc
• 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
Number of PROFINET interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	0
1. 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
— 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, may	8
activated/deactivated, max.	

Direct date evolungs (alove to slave	Voc. as subscriber
 — Direct data exchange (slave-to-slave communication) 	Yes; as subscriber
— DPV1	Yes
Address area	
— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
PROFIBUS 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	
— PG/OP communication	Yes
— Routing	Yes; Only with active interface
Global data communication	No
 S7 basic communication 	No
— S7 communication	Yes
— S7 communication, as client	No
— S7 communication, as server	Yes; Connection configured on one side only
Direct data exchange (slave-to-slave)	Yes
communication)	
— 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	Yes; only read function
Media redundancy	Yes
PROFINET IO Controller	
Transmission rate, max.	100 Mbit/s
Services	
— PG/OP communication	Yes
— Routing	Yes
— 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

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Send cycles Updating time Updating t	 Number of IO Devices per tool, max. 	8
option)	 Device replacement without swap medium 	Yes
Address area	— Send cycles	
- Inputs, max. 2 kbyte - Outputs, max. 1 024 byte - PROFINET ID Device - Services - PC/OP communication	— Updating time	
- Outputs, max User data consistency, max. PROFINET ID Device Services - PG/OP communication - Routing - S7 communication - Routing - S7 communication - S8 communication - IRT - PROFILE S8 communication - IRT - PROFILE S8 communication - Shared device - Shared device - Shared device - Number of IO Controllers with shared device, max Number of IO Controllers with shared device, max. Transfer memory - Inputs, max Number, max Outputs, max 1 440 byte; Per IO Controller with shared device - Number, max User data per submodule, max User data per submodule, max User data per submodule, max Ves - expicit transmission - ves - expicit transmission - Number of connections, max Local port numbers used at the system end - Open IE communication - Number of connections, max Local port numbers used at the system end - S6533, 65534, 65535 - Ves - Redundancy mode - Media redundancy - Switchover time on line break, typ Number of stations in the ring, max Data length for connection type 01H, max Data length for connection type 11H, max Data length for connection by per 17H, max Several passive connections per port, supported - Ves; via integrated PROFINET interface and loadable FBs - Ves; via integrated PROFINET interface and loadable FBs - Ves; via integrated PROFINET interface and loadable FBs - Ves; via integrated PROFINET interface and loadable FBs - Ves; via integrated PROFINET interface and loadable FBs - Ves; via integrated PROFINET interface and loadable FBs	Address area	
PROFINET IO Device Services - PG/OP communication	— Inputs, max.	2 kbyte
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	— Routing	Yes
	— S7 communication	
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Submodules - Number, max User data per submodule, max. PROFINET CBA • acyclic transmission • cyclic transmission • Number of connections, max. • Local port numbers used at the system end • Keep-alive function, supported PROFISafe PROFISafe Redundancy mode Media redundancy - Switchover time on line break, typ Number of stations in the ring, max. • TCP/IP - Number of connections, max. • TCP/IP - Number of connections, max Data length for connection type 01H, max Several passive connections per port, supported • ISO-on-TCP (RFC1006) Yes 1 024 byte 64 4 024 byte 9 40 024 byte	— Inputs, max.	1 440 byte; Per IO Controller with shared device
- Number, max User data per submodule, max. 1 024 byte PROFINET CBA • acyclic transmission • cyclic transmission • Number of connections, max. • Local port numbers used at the system end • Keep-alive function, supported PROFIsafe Redundancy mode Media redundancy - Switchover time on line break, typ Number of stations in the ring, max. • TCP/IP - Number of connections, max. • Data length for connection type 01H, max Data length for connection type 11H, max several passive connections per port, supported • ISO-on-TCP (RFC1006) Yes Yes 1 024 byte 1 024 by	— Outputs, max.	1 440 byte; Per IO Controller with shared device
- User data per submodule, max. PROFINET CBA • acyclic transmission • cyclic transmission • Number of connections, max. • Local port numbers used at the system end • Keep-alive function, supported Protocols PROFIsafe Redundancy mode Media redundancy - Switchover time on line break, typ Number of stations in the ring, max. • TCP/IP Number of connections, max. - Data length for connection type 01H, max Data length for connection type 11H, max several passive connections per port, supported Pes Yes 1 024 byte Yes Yes Yes 9 200 ms; PROFINET MRP - Number of stations in the ring, max. 1 460 byte - several passive connections per port, supported Yes Yes; via integrated PROFINET interface and loadable FBs Yes Yes Yes Yes Yes Yes Yes Y	Submodules	•
PROFINET CBA • acyclic transmission • cyclic transmission • cyclic transmission • Number of connections, max. • Local port numbers used at the system end • Keep-alive function, supported Protocols PROFIsafe PROFIsafe Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. • TCP/IP Number of connections, max. • Local port numbers used at the system end • 700 ms; PROFINET MRP • Number of stations in the ring, max. • Switchover time on line break, typ. — Number of stations in the ring, max. • 1460 byte — Data length for connection type 11H, max. — Data length for connection type 11H, max. — several passive connections per port, supported • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs Yes; via integrated PROFINET interface and loadable FBs	— Number, max.	64
PROFINET CBA • acyclic transmission • cyclic transmission • cyclic transmission • Number of connections, max. • Local port numbers used at the system end • Keep-alive function, supported Protocols PROFIsafe PROFIsafe Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. • TCP/IP Number of connections, max. • Local port numbers used at the system end • 700 ms; PROFINET MRP • Number of stations in the ring, max. • Switchover time on line break, typ. — Number of stations in the ring, max. • 1460 byte — Data length for connection type 11H, max. — Data length for connection type 11H, max. — several passive connections per port, supported • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs Yes; via integrated PROFINET interface and loadable FBs		1 024 byte
acyclic transmission cyclic transmission Yes cyclic transmission Yes Open IE communication Number of connections, max. Local port numbers used at the system end Cyclic transmission Number of connections, max. Local port numbers used at the system end Cyclic transmission Number of connections, max. Keep-alive function, supported Protocols PROFIsafe PROFIsafe Yes Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. Open IE communication TCP/IP Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — Several passive connections per port, supported ISO-on-TCP (RFC1006) Yes Yes Yes Yes Yes Yes Yes Ye		,,
Open IE communication Number of connections, max. Local port numbers used at the system end Neep-alive function, supported Yes Protocols PROFIsafe Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. Open IE communication TCP/IP — Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — several passive connections per port, supported Ves, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535 Yes Ves Redundancy mode Ves Redundancy mode Ves Redundancy Switchover time on line break, typ. — Number of stations in the ring, max. Suit the grated PROFINET interface and loadable FBs 1 460 byte 32 768 byte Yes; via integrated PROFINET interface and loadable FBs Ves; via integrated PROFINET interface and loadable FBs Ves; via integrated PROFINET interface and loadable FBs		Yes
Open IE communication Number of connections, max. Local port numbers used at the system end O, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535 Keep-alive function, supported Protocols PROFIsafe Yes Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. Open IE communication TCP/IP Number of connections, max. Data length for connection type 01H, max. — Data length for connection type 11H, max. — Data length for connections per port, supported ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs Yes Yes; via integrated PROFINET interface and loadable FBs	•	
Number of connections, max. Local port numbers used at the system end O, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535 Keep-alive function, supported Yes Protocols PROFIsafe Yes Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. Open IE communication TCP/IP — Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — Several passive connections per port, supported ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs Yes; via integrated PROFINET interface and loadable FBs		
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PROFIsafe Redundancy mode Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. Open IE communication • TCP/IP — Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — several passive connections per port, supported • ISO-on-TCP (RFC1006) Yes Yes Yes Yes Yes Yes Yes Ye		
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 Yes; via integrated PROFINET interface and loadable FBs — Number of connections, max. 8 — Data length for connection type 01H, max. 1 460 byte — Data length for connection type 11H, max. 32 768 byte — several passive connections per port, supported Yes • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs		Yes
Media redundancy — Switchover time on line break, typ. — Number of stations in the ring, max. Open IE communication • TCP/IP — Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — several passive connections per port, supported • ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs 1 460 byte Yes Yes Yes Yes Yes Yes Yes Y		
 — Switchover time on line break, typ. — Number of stations in the ring, max. 50 Open IE communication ◆ TCP/IP ✓ Yes; via integrated PROFINET interface and loadable FBs — Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — several passive connections per port, supported ◆ ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs 		
 Number of stations in the ring, max. Open IE communication TCP/IP Yes; via integrated PROFINET interface and loadable FBs Number of connections, max. Data length for connection type 01H, max. Data length for connection type 11H, max. several passive connections per port, supported ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs 	•	200 me: DDOEINET MDD
Open IE communication ■ TCP/IP — Number of connections, max. — Data length for connection type 01H, max. — Data length for connection type 11H, max. — several passive connections per port, supported ■ ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs Yes; via integrated PROFINET interface and loadable FBs	•	
 ◆ TCP/IP Number of connections, max. Data length for connection type 01H, max. Data length for connection type 11H, max. several passive connections per port, supported ◆ ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs 		00
 Number of connections, max. Data length for connection type 01H, max. Data length for connection type 11H, max. several passive connections per port, supported ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs 	·	Vegetic interested DDOCINET interference of the delty 50
 — Data length for connection type 01H, max. — Data length for connection type 11H, max. — several passive connections per port, supported ◆ ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs 		
 — Data length for connection type 11H, max. — several passive connections per port, supported ◆ ISO-on-TCP (RFC1006) ✓ Yes; via integrated PROFINET interface and loadable FBs 		
 — several passive connections per port, supported ISO-on-TCP (RFC1006) Yes Yes; via integrated PROFINET interface and loadable FBs 		· · · · · · · · · · · · · · · · · · ·
• ISO-on-TCP (RFC1006) Yes; via integrated PROFINET interface and loadable FBs		
	 several passive connections per port, supported 	Yes
	•	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max. 8	Number of connections, max.	8

D. I. I. II	00 700 1
— Data length, max.	32 768 byte
• UDP	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max.	8
— Data length, max.	1 472 byte
Web server	Variable and function
• supported	Yes; only read function
User-defined websites	Yes
Number of HTTP clients	5
communication functions / header	V
PG/OP communication	Yes
Data record routing	Yes
Global data communication	Yes
supportedNumber of GD loops, max.	8
Number of GD packets, max.	8
Number of GD packets, transmitter, max.	8
·	8
Number of GD packets, receiver, max.Size of GD packets, max.	o 22 byte
Size of GD packets, max. Size of GD packet (of which consistent), max.	22 byte
S7 basic communication	LL 010
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
a Llear data pariah may	loadable FB See online help of STEP 7 (shared parameters of the SFBs/FBs and of the
User data per job, max.	SFCs/FCs of S7 Communication)
S5 compatible communication	
• supported	Yes; via CP and loadable FC
communication functions / PROFINET CBA (with set target commu	
 Setpoint for the CPU communication load 	50 %
number of remote connection partners / with PROFINET CBA	32
 number of technological functions / with PROFINET CBA / for master or slave 	30
number of connections / with PROFINET CBA / for master or slave / total	1 000
data volume / of the input variables / with PROFINET CBA / for master or slave	4 000 byte
data volume / of the output variables / with PROFINET CBA / for master or slave	4 000 byte
number of internal and PROFIBUS interconnections / with PROFINET CBA / maximum	500
data volume / of internal and PROFIBUS interconnections / with PROFINET CBA / for master or slave	4 000 byte
 data volume / with PROFINET CBA / per connection / maximum 	1 400 byte
performance data / PROFINET CBA / remote interconnection	/ with acyclic transfer / header
 update time / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA 	500 ms
 number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA / maximum 	100
 number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum 	100
 data volume / as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA 	2 000 byte
 — data volume / as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA 	2 000 byte
	1 400 byte

interconnections / in the case of acyclic transmission / with PROFINET CBA / per connection / maximum

performance data / PROFINET CBA / remote interconnection / — update time / of the remote interconnections / with cyclical transfer / with PROFINET CBA — number of remote connections to input variables / with PROFINET CBA / with cyclic transfer / maximum — number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum	/ with cyclic transfer / header 10 ms 200 200 2 000 byte
cyclical transfer / with PROFINET CBA — number of remote connections to input variables / with PROFINET CBA / with cyclic transfer / maximum — number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with output variables / with cyclical	200
with PROFINET CBA / with cyclic transfer / maximum — number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with output variables / with cyclical	200
with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with output variables / with cyclical	
interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum — data volume / as user data for remote interconnections with output variables / with cyclical	2 000 byte
interconnections with output variables / with cyclical	
	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	onality / header
— product function / with PROFINET CBA /	Yes
PROFIBUS proxy functionality — number of coupled PROFIBUS devices / with	16
PROFIBUS functionality — data volume / with PROFIBUS proxy functionality /	240 byte; Slave-dependent
with PROFINET CBA / per connection / maximum	
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, min. - adjustable for S7 communication, max.	14
total number of instances, max.	32
usable for routing	
·	X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max.
S7 message functions	40 Department the confirmation of the Confirma
Number of login stations for message functions, max.	16; Depending on the configured connections for PG/OP and S7 basic communication
Process diagnostic messages	Yes
simultaneously active Alarm-S blocks, max.	300
Test commissioning functions	
	Yes; Up to 2 simultaneously
Status block	
Status block Single step	Yes
	Yes 4

- Chatra (control variable	Voc
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. 	500
— adjustable	No
of which powerfail-proof	100
 Number of entries readable in RUN, max. 	499
— adjustable	Yes
— preset	10
Service data	
• can be read out	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	0° C
configuration / header	
Configuration software	
• STEP 7	Yes; V5.5 or higher
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
Know-how protection	100
User program protection/password protection	Yes
Block encryption	Yes; With S7 block Privacy
Dimensions	165, WHIT OF DIOCK FITVACY
	40 mm
Width	40 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	340 g

last modified: 4/1/2022 🖸