## 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	
<ul> <li>Programming package</li> </ul>	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	
<ul> <li>Mains/voltage failure stored energy time</li> </ul>	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
<sup>2</sup> t	1 A <sup>2</sup> ·s
Power loss	
Power loss, typ.	4.65 W
Memory	
Work memory	
<ul> <li>integrated</li> </ul>	384 kbyte
expandable	No
Load memory	
Plug-in (MMC)	Yes
<ul> <li>Plug-in (MMC), max.</li> </ul>	8 Mbyte
<ul> <li>Data management on MMC (after last programming), min.</li> </ul>	10 y
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, two	0.45 us
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, 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
<ul> <li>Number of free cycle OBs</li> </ul>	1; OB 1
<ul> <li>Number of time alarm OBs</li> </ul>	1; OB 10
<ul> <li>Number of delay alarm OBs</li> </ul>	2; OB 20, 21
<ul> <li>Number of cyclic interrupt OBs</li> </ul>	4; OB 32, 33, 34, 35
<ul> <li>Number of process alarm OBs</li> </ul>	1; OB 40
<ul> <li>Number of DPV1 alarm OBs</li> </ul>	3; OB 55, 56, 57
<ul> <li>Number of isochronous mode OBs</li> </ul>	1; OB 61
<ul> <li>Number of startup OBs</li> </ul>	1; OB 100
<ul> <li>Number of asynchronous error OBs</li> </ul>	6; OB 80, 82, 83, 85, 86, 87 (OB83 only for PROFINET IO)
Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
<ul> <li>per priority class</li> </ul>	16
<ul> <li>additional within an error OB</li> </ul>	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	N.
— adjustable	Yes
— lower limit	0
— upper limit	999
IEC counter	Voo
present     Type	Yes SFB
• Type	
Number S7 times	Unlimited (limited only by RAM capacity)
Number	256
Retentivity	200
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	No retentivity
Time range	no rotoniuvity
— 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
Netentive data area (incl. timers, counters, hays), max.	120 NUYLE

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	o, i memory byte
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	100
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	2 010 5/10
— Inputs	2 048 byte
— Outputs	2 048 byte
Process image	2 040 5916
Inputs	2 048 byte
Outputs	2 048 byte
Inputs, adjustable	2 048 byte
Outputs, adjustable	2 048 byte 128 byte
Inputs, default     Outputs, default	
Outputs, default     Subprocess images	128 byte
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	
<ul> <li>integrated</li> </ul>	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	
<ul> <li>Hardware clock (real-time)</li> </ul>	Yes
<ul> <li>retentive and synchronizable</li> </ul>	Yes
Backup time	6 wk; At 40 °C ambient temperature
<ul> <li>Deviation per day, max.</li> </ul>	10 s; Typ.: 2 s
<ul> <li>Behavior of the clock following POWER-ON</li> </ul>	Clock continues running after POWER OFF
<ul> <li>Behavior of the clock following expiry of backup period</li> </ul>	the clock continues at the time of day it had when power was switched off
Operating hours counter	
Number	1

- Number/Number renera	0
Number/Number range	
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	
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	100
• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	200 m/
• MPI	Yes
PROFIBIIS DP master	Yes
PROFIBUS DP master     PROFIBUS DP slave	Yes
PROFIBUS DP slave	Yes
PROFIBUS DP slave     Point-to-point connection	
PROFIBUS DP slave     Point-to-point connection  MPI	Yes No
<ul> <li>PROFIBUS DP slave</li> <li>Point-to-point connection</li> <li>MPI</li> <li>Transmission rate, max.</li> </ul>	Yes
PROFIBUS DP slave     Point-to-point connection MPI     Transmission rate, max.     Services	Yes No 12 Mbit/s
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.      Services      — PG/OP communication	Yes No 12 Mbit/s Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.      Services         — PG/OP communication         — Routing	Yes No 12 Mbit/s Yes Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.      Services          — PG/OP communication         — Routing         — Global data communication	Yes No 12 Mbit/s Yes Yes Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.      Services          — PG/OP communication         — Routing         — Global data communication         — S7 basic communication	Yes No 12 Mbit/s Yes Yes Yes Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.  Services      — PG/OP communication      — Routing      — Global data communication      — S7 basic communication      — S7 communication	Yes No 12 Mbit/s Yes Yes Yes Yes Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.  Services      — PG/OP communication      — Routing      — Global data communication      — S7 basic communication      — S7 communication      — S7 communication      — S7 communication, as client	Yes No 12 Mbit/s Yes Yes Yes Yes Yes Yes No; but via CP and loadable FB
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.  Services      — PG/OP communication      — Routing      — Global data communication      — S7 basic communication      — S7 communication      — S7 communication, as client      — S7 communication, as server	Yes No 12 Mbit/s Yes Yes Yes Yes Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.  Services      PG/OP communication     Routing     Global data communication     S7 basic communication     S7 communication     S7 communication     S7 communication, as client     S7 communication, as server  PROFIBUS DP master	Yes No 12 Mbit/s Yes Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.  Services      PG/OP communication      PG/OP communication      Routing      Global data communication      S7 basic communication      S7 communication      S7 communication      S7 communication, as client      S7 communication, as server  PROFIBUS DP master      Transmission rate, max.	Yes No 12 Mbit/s Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.      Services          — PG/OP communication         — Routing         — Global data communication         — S7 basic communication         — S7 communication         — S7 communication         — S7 communication, as client         — S7 communication, as server  PROFIBUS DP master      Transmission rate, max.     Number of DP slaves, max.	Yes No 12 Mbit/s Yes Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes
PROFIBUS DP slave     Point-to-point connection  MPI      Transmission rate, max.      Services          — PG/OP communication         — Routing         — Global data communication         — S7 basic communication         — S7 communication         — S7 communication         — S7 communication, as client         — S7 communication, as server  PROFIBUS DP master      Transmission rate, max.     Number of DP slaves, max.  Services	Yes No 12 Mbit/s Yes Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124
<ul> <li>PROFIBUS DP slave</li> <li>Point-to-point connection</li> <li>MPI <ul> <li>Transmission rate, max.</li> </ul> </li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 communication</li> <li>S7 communication, as client</li> <li>S7 communication, as server</li> </ul> </li> <li>PROFIBUS DP master <ul> <li>Transmission rate, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services <ul> <li>PG/OP communication</li> </ul> </li> </ul>	Yes No 12 Mbit/s Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124
PROFIBUS DP slave     Point-to-point connection      MPI      Transmission rate, max.      Services          — PG/OP communication         — Routing         — Global data communication         — S7 basic communication         — S7 communication         — S7 communication         — S7 communication, as client         — S7 communication, as server      PROFIBUS DP master      • Transmission rate, max.     • Number of DP slaves, max.      Services         — PG/OP communication         — Routing         — PG/OP communication         — Routing	Yes No 12 Mbit/s Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124
PROFIBUS DP slave     Point-to-point connection      MPI      Transmission rate, max.     Services          — PG/OP communication         — Routing         — Global data communication         — S7 basic communication         — S7 communication         — S7 communication         — S7 communication, as client         — S7 communication, as server      PROFIBUS DP master      PROFIBUS DP master      Transmission rate, max.     Number of DP slaves, max.     Services         — PG/OP communication         — Routing         — PG/OP communication         — Routing         — Of DP slaves, max.     Services         — PG/OP communication         — Global data communication         — Global data communication	Yes No 12 Mbit/s 12 Mbit/s Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124 Yes No
<ul> <li>PROFIBUS DP slave</li> <li>Point-to-point connection</li> <li>MPI</li> <li>Transmission rate, max.</li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 communication, as client</li> <li>S7 communication, as server</li> </ul> </li> <li>PROFIBUS DP master <ul> <li>Transmission rate, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>Site communication</li> <li>Services</li> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 basic communication</li> </ul> </li> </ul>	Yes No 12 Mbit/s 12 Mbit/s Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124 Yes No Yes; I blocks only
<ul> <li>PROFIBUS DP slave</li> <li>Point-to-point connection</li> <li>MPI</li> <li>Transmission rate, max.</li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 communication, as client</li> <li>S7 communication, as server</li> </ul> </li> <li>PROFIBUS DP master <ul> <li>Transmission rate, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 communication</li> <li>Services</li> <li>PG/OP communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 basic communication</li> <li>S7 basic communication</li> </ul> </li> </ul>	Yes No 12 Mbit/s 12 Mbit/s Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124 Yes No Yes S
<ul> <li>PROFIBUS DP slave</li> <li>Point-to-point connection</li> <li>MPI</li> <li>Transmission rate, max.</li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 communication, as client</li> <li>S7 communication, as server</li> </ul> </li> <li>PROFIBUS DP master <ul> <li>Transmission rate, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 communication</li> <li>Services</li> <li>PG/OP communication</li> <li>S7 basic communication</li> <li>S7 communication</li> </ul> </li> </ul>	Yes No 12 Mbit/s Yes Yes Yes Yes No; but via CP and loadable FB Yes No; but via CP and loadable FB
<ul> <li>PROFIBUS DP slave</li> <li>Point-to-point connection</li> <li>MPI</li> <li>Transmission rate, max.</li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 communication, as client</li> <li>S7 communication, as server</li> </ul> </li> <li>PROFIBUS DP master <ul> <li>Transmission rate, max.</li> <li>Number of DP slaves, max.</li> </ul> </li> <li>Services <ul> <li>PG/OP communication</li> <li>Routing</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>Services</li> <li>Services</li> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 basic communication</li> <li>S7 basic communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 basic communication</li> <li>S7 communication</li> </ul> </li> </ul>	Yes No 12 Mbit/s 12 Mbit/s Yes Yes Yes Yes Yes No; but via CP and loadable FB Yes 12 Mbit/s 124 Yes No Yes I24

— 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	8
simultaneously activated/deactivated, max.	0
<ul> <li>— Direct data exchange (slave-to-slave communication)</li> </ul>	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
<ul> <li>automatic baud rate search</li> </ul>	Yes; only with passive interface
<ul> <li>Address area, max.</li> </ul>	32
<ul> <li>User data per address area, max.</li> </ul>	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	
Transfer memory — Inputs	244 byte
· · · · · · · · · · · · · · · · · · ·	244 byte 244 byte
— Inputs	
— Inputs — Outputs	
<ul> <li>— Inputs</li> <li>— Outputs</li> <li>2. Interface</li> </ul>	244 byte
<ul> <li>— Inputs</li> <li>— Outputs</li> <li>2. Interface</li> <li>Interface type</li> </ul>	244 byte PROFINET
— Inputs     — Outputs 2. Interface Interface type Isolated automatic detection of transmission rate	244 byte PROFINET Yes
— Inputs     — Outputs 2. Interface Interface type Isolated	244 byte PROFINET Yes Yes; 10/100 Mbit/s
<ul> <li>Inputs</li> <li>Outputs</li> </ul> 2. Interface Interface type Isolated automatic detection of transmission rate Autonegotiation Autocrossing	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes
<ul> <li>Inputs</li> <li>Outputs</li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes
<ul> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes
<ul> <li>Inputs</li> <li>Outputs</li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes
<ul> <li>Inputs <ul> <li>Outputs</li> </ul> </li> <li>2. Interface</li> <li>Interface type <ul> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types <ul> <li>RJ 45 (Ethernet)</li> </ul> </li> </ul></li></ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes
<ul> <li>Inputs</li> <li>Outputs</li> </ul> 2. Interface Interface type Isolated <ul> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes 2
<ul> <li>Inputs <ul> <li>Outputs</li> </ul> </li> <li>2. Interface <ul> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> </ul> </li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes 2
<ul> <li>Inputs <ul> <li>Outputs</li> </ul> </li> <li>2. Interface</li> <li>Interface type <ul> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> </ul> </li> <li>Interface types <ul> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> </ul> </li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes 2 Yes 2 Yes
<ul> <li>Interface</li> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes No Yes; Also simultaneously with IO-Device functionality
<ul> <li>Interface</li> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes 2 Yes 2 Yes
<ul> <li>Interface</li> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes No Yes; Also simultaneously with IO-Device functionality Yes; Also simultaneously with IO Controller functionality
<ul> <li>Interface</li> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>PROFINET CBA</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes Yes Ye
<ul> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>PROFINET CBA</li> <li>PROFIBUS DP master</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes No No Yes; Also simultaneously with IO-Device functionality Yes; Also simultaneously with IO Controller functionality Yes No
<ul> <li>Interface</li> <li>Outputs</li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes No Yes; Also simultaneously with IO-Device functionality Yes; Also simultaneously with IO Controller functionality Yes No No
<ul> <li>Interface</li> <li>Outputs</li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>PROFINET CBA</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No Yes; Also simultaneously with IO-Device functionality Yes; Also simultaneously with IO Controller functionality Yes; No No No Yes; Via TCP/IP, ISO on TCP, and UDP
<ul> <li>Interface</li> <li>Outputs</li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET IO Device</li> <li>PROFINET CBA</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No No No No No No No No No
<ul> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET CBA</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No No No No No No No No No
<ul> <li>Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> <li>Protocols</li> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFINET CBA</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> <li>PROFINET IO Controller</li> <li>Transmission rate, max.</li> </ul>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No No No No No No No No No
<ul> <li>Inputs <ul> <li>Outputs</li> </ul> </li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> </ul> <li>Protocols <ul> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> </ul> </li> <li>PROFINET IO Controller <ul> <li>Transmission rate, max.</li> <li>Services</li> </ul> </li>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No Yes; Also simultaneously with IO-Device functionality Yes; Also simultaneously with IO Controller functionality Yes No No No Yes; Via TCP/IP, ISO on TCP, and UDP Yes Yes 100 Mbit/s
<ul> <li>Inputs <ul> <li>Outputs</li> </ul> </li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> </ul> <li>Protocols <ul> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> </ul> </li> <li>PROFINET IO Controller <ul> <li>Transmission rate, max.</li> <li>Services</li> <li>PG/OP communication</li> </ul> </li>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No No No No No No No No No
<ul> <li>Inputs <ul> <li>Outputs</li> </ul> </li> <li>2. Interface</li> <li>Interface type</li> <li>Isolated</li> <li>automatic detection of transmission rate</li> <li>Autonegotiation</li> <li>Autocrossing</li> <li>Change of IP address at runtime, supported</li> <li>Interface types</li> <li>RJ 45 (Ethernet)</li> <li>Number of ports</li> <li>integrated switch</li> </ul> <li>Protocols <ul> <li>MPI</li> <li>PROFINET IO Controller</li> <li>PROFIBUS DP master</li> <li>PROFIBUS DP slave</li> <li>Open IE communication</li> <li>Web server</li> <li>Media redundancy</li> </ul> </li> <li>PROFINET IO Controller <ul> <li>Transmission rate, max.</li> <li>Services</li> </ul> </li>	244 byte PROFINET Yes Yes; 10/100 Mbit/s Yes Yes Yes Yes Yes Yes No No Yes; Also simultaneously with IO-Device functionality Yes; Also simultaneously with IO Controller functionality Yes; Also simultaneously with IO Controller functionality Yes No No No No No No No No No No

	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
<ul> <li>Number of IO devices with prioritized startup, max.</li> </ul>	32
<ul> <li>— Number of connectable IO Devices, max.</li> </ul>	128
— Of which IO devices with IRT, max.	64
— of which in line, max.	64
<ul> <li>— Number of IO Devices with IRT and the option "high flexibility"</li> </ul>	128
— of which in line, max.	61
— Number of connectable IO Devices for RT,	128
max.	
— of which in line, max.	128
<ul> <li>Activation/deactivation of IO Devices</li> </ul>	Yes
<ul> <li>— Number of IO Devices that can be simultaneously activated/deactivated, max.</li> </ul>	8
<ul> <li>IO Devices changing during operation (partner ports), supported</li> </ul>	Yes
- Number of IO Devices per tool, max.	8
— Device replacement without swap medium	Yes
— Send cycles	250 $\mu s,$ 500 $\mu s,$ 1 ms; 2 ms, 4 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	
PROFINET IO Device Services	
	Yes
Services	Yes
Services — PG/OP communication	
Services — PG/OP communication — Routing	Yes Yes; With loadable FBs, max. configurable connections: 14, max.
Services — PG/OP communication — Routing — S7 communication	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32
Services — PG/OP communication — Routing — S7 communication — Isochronous mode	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No
Services — PG/OP communication — Routing — S7 communication — Isochronous mode — IRT	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB
Services 	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device
Services 	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes
Services 	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes
Services 	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes
Services 	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes 2
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes 2
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         Submodules	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         Submodules         — Number, max.	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         — Number, max.         — User data per submodule, max.	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes Yes; With SFB 73 / 74 prepared for loadable PROFIenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         — Outputs, max.         — Number, max.         — User data per submodule, max.         PROFINET CBA	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         — User data per submodule, max.         PROFINET CBA         • acyclic transmission	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         — User data per submodule, max.         — User data per submodule, max.         PROFINET CBA         • cyclic transmission	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte Yes
Services         — PG/OP communication         — Routing         — S7 communication         — Isochronous mode         — IRT         — PROFlenergy         — Shared device         — Number of IO Controllers with shared device, max.         Transfer memory         — Inputs, max.         — Outputs, max.         — Outputs, max.         — User data per submodule, max.         PROFINET CBA         • acyclic transmission         • cyclic transmission         Open IE communication	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte Yes Yes
Services         - PG/OP communication         - Routing         - S7 communication         - Isochronous mode         - IRT         - PROFlenergy         - Shared device         - Number of IO Controllers with shared device, max.         Transfer memory         - Inputs, max.         - Outputs, max.         - Outputs, max.         - User data per submodule, max.         PROFINET CBA         • acyclic transmission         • cyclic transmission         • cyclic transmission         • Local port numbers used at the system end         • Keep-alive function, supported	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte Yes Yes Yes
Services         - PG/OP communication         - Routing         - S7 communication         - Isochronous mode         - IRT         - PROFlenergy         - Shared device         - Number of IO Controllers with shared device, max.         Transfer memory         - Inputs, max.         - Outputs, max.         - Outputs, max.         - User data per submodule, max.         PROFINET CBA         • acyclic transmission         • cyclic transmission         • Coll port numbers used at the system end         • Keep-alive function, supported	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte Yes Yes Yes 8 0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535 Yes
Services         - PG/OP communication         - Routing         - S7 communication         - Isochronous mode         - IRT         - PROFlenergy         - Shared device         - Number of IO Controllers with shared device, max.         Transfer memory         - Inputs, max.         - Outputs, max.         - Outputs, max.         - User data per submodule, max.         PROFINET CBA         • acyclic transmission         • cyclic transmission         • cyclic transmission         • Local port numbers used at the system end         • Keep-alive function, supported         Protocols         PROFIsafe	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte Yes Yes 8 0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535
Services         - PG/OP communication         - Routing         - S7 communication         - Isochronous mode         - IRT         - PROFlenergy         - Shared device         - Number of IO Controllers with shared device, max.         Transfer memory         - Inputs, max.         - Outputs, max.         - Outputs, max.         - User data per submodule, max.         PROFINET CBA         • acyclic transmission         • cyclic transmission         • Coll port numbers used at the system end         • Keep-alive function, supported	Yes Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32 No Yes Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device Yes 2 1 440 byte; Per IO Controller with shared device 1 440 byte; Per IO Controller with shared device 64 1 024 byte Yes Yes 8 0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535 Yes

- Switchover time on line break, typ.     200 ms; PROFINET MRP       - Number of stations in the ring, max.     50       Open IE communication     Yes; via integrated PROFINET interface and loadable FBs       - Number of connections type 01H, max.     8       - Data length for connection type 01H, max.     32 768 byte       - exercil passive connections per port, supported     Yes; via integrated PROFINET Interface and loadable FBs       • Number of connections, max.     8       - Data length, max.     32 768 byte       • UDP     Yes; via integrated PROFINET Interface and loadable FBs       • Data length, max.     1472 byte       Web server     Yes       • User-defined websites     Yes       • User-defined websites     Yes       • Supported     Yes       • Supported     Yes       • Supported     Yes       • Supported     Yes       • Data length, max.     8       • Data length, max.     1472 byte       Web server     Yes       • Supported     Yes       • Supported     Yes <tr< th=""></tr<>
Open IE communication       Yes; via integrated PROFINET interface and loadable FBs <ul> <li>Data length for connection type 01H, max.</li> <li>Data length for connection type 11H, max.</li> <li>S2 768 byte</li> <li>Several passive connections per port, supported</li> <li>Yes; via integrated PROFINET interface and loadable FBs</li> <li>Number of connections, max.</li> <li>Data length, max.</li> <li>Tes; via integrated PROFINET interface and loadable FBs</li> <li>Mumber of connections, max.</li> <li>Data length, max.</li> <li>Yes; via integrated PROFINET interface and loadable FBs</li> <li>Severet</li> <li>Ves; via integrated PROFINET interface and loadable FBs</li> <li>Severet</li> <li>Ves; via integrated PROFINET interface and loadable FBs</li> <li>Severet</li> <li>Ves; via integrated PROFINET interface and loadable FBs</li> <li>Severet</li> <li>Ves</li> </ul> <li>PG/OP communication</li> <ul> <li>Yes</li> <li>Number of GD packets, max.</li> <li>Number of GD packets, max.</li> <li>Size of GD packets, max.</li></ul>
• TCP/IP       Yes; via integrated PROFINET interface and loadable FBs         - Number of connection type 01H, max.       8         - Data length for connection type 11H, max.       32 768 byte         - several passive connections per port, supported       Yes; via integrated PROFINET interface and loadable FBs         • Number of connections, max.       8         - Data length for connections, max.       8         - Data length max.       2768 byte         - Number of connections, max.       8         - Data length, max.       32 768 byte         - Data length, max.       472 byte         Web server       9         - Data length, max.       1472 byte         Web server       9         - Supported       Yes         • Number of GD packets, max.
- 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       - Number of connections, max.     8       - Data length, max.     32 768 byte       • UDP     Yes; via integrated PROFINET interface and loadable FBs       - Number of connections, max.     8       - Data length, max.     1472 byte       Web server     Yes; via integrated PROFINET interface and loadable FBs       • Number of Connections, max.     8       - Data length, max.     1472 byte       Web server     Yes       • User-defined websites     Yes       • Supported     Yes       • User-defined websites     Yes       • Outmucation functions / heador     Yes       PG/OP communication     Yes       • Number of GD packets, max.     8       • Number of GD packets, max.     8       • Number of GD packets, max.     8       • Size of GD packets, max.     22 byte       • Size of GD packets, max.     22 byte       • Size of GD packets, max.     76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_CET as server)
- 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         - Number of connections, max.       8         - Data length, max.       32 768 byte         • UDP       Yes; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       1472 byte         Web server       Yes; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       1472 byte         Web server       Yes         • supported       Yes         • User-defined websites       Yes         • Number of HTTP clients       5         communication       Yes         • Supported       Yes         • Number of GD packets, max.       8         • Number of GD packets, max.       8         • Number of GD packets, max.       8         • Number of GD packets, max.       22 byte         Size of GD packet (of which consistent), max.       22 byte         S7 basic communication<
- 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       - Number of connections, max.     8       - Data length, max.     32 768 byte       • UDP     Yes; via integrated PROFINET interface and loadable FBs       - Number of connections, max.     8       - Data length, max.     1472 byte       Web server     *       • Supported     Yes       • User defined websites     Yes       • User defined websites     Yes       • Number of HTDP clients     5       communication     Yes       • Supported     Yes       • Supported     Yes       • Supported     Yes       • Number of FDD pops, max.     8       • Number of GD packets, transmitter, max.     8       • Number of GD packets, max.     8       • Number of GD packets, max.     22 byte       • Size of GD packets, max.     22 byte       • Size of GD packets, max.     22 byte       • Size of GD packets, max.     76 byte       • Supported     Yes       • User data per job, max.     76 byte       • User data per job (of which consistent), max.     22 byte       S7 communicatio
several passive connections per port, supported       Yes         • ISO-on-TCP (RFC1006)       Yes; via integrated PROFINET interface and loadable FBs        Number of connections, max.       8        Data length, max.       32 768 byte        Number of connections, max.       8        Data length, max.       1472 byte         Web server       -         •-Data length, max.       1472 byte         Web server       -         •-User-defined websites       Yes         •-User-defined websites       Yes         •-User-defined websites       Yes         •-Data length, max.       1472 byte         Veb server       -         •-Data length, max.       1472 byte         Veb 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, max.       22 byte         • Size of GD packets, max.       22 byte         • Size of GD packet (of which consistent), max.       22 byte         <
supported       Yes; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       32 768 byte         • UDP       Yes; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       1472 byte         Webserver       1472 byte         • supported       Yes         • Supported       Yes         • Number of HTTP clients       5         communication functions/ header       Yes         PG/OP communication       Yes         Global data communication       Yes         • Number of GD packets, max.       8         • Number of GD packets, max.       8         • Number of GD packets, receiver, max.       8         • Number of GD packets, receiver, max.       8         • Size of GD packets, receiver, max.       8         • Size of GD packets, max.       22 byte         S7 basic communication       Yes         • User data per job, max.       76 byte         • User data per job, max.
• ISO-on-TCP (RFC1006)       Yes; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       32 768 byte         • UDP       Yes; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       1472 byte         Web server         Ves; via integrated PROFINET interface and loadable FBs         - Number of connections, max.       8         - Data length, max.       1472 byte         Web server         Ves; via integrated PROFINET interface and loadable FBs         • User-defined websites       Yes         • User-defined websites       Yes         • User-defined websites       Yes         • User-defined websites       Yes         • Outmotication functions / header       PGOP communication         PGOP communication       Yes         bata record routing       Yes         • Number of GD loops, max.       8         • Number of GD packets, max.       8         • Number of GD packets, receiver, max.       8         • Size of GD packets, max.       22 byte         • Size of GD packet, for which consistent), max.       22 byte
Number of connections, max.8 Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs Number of connections, max.8 Data length, max.1472 byteWeb server• supportedYes• User-defined websitesYes• Number of HTTP clients5Communication functions / headerPG/OP communicationYes• SupportedYes• SupportedYes• Other of CD packets, max.8• Number of GD loops, max.8• Number of GD packets, max.8• Number of GD packets, max.8• Number of GD packets, max.8• Size of GD packets, max.8• Size of GD packets, max.22 byte• Size of GD packets, max.22 byte• Size of GD packets, max.22 byte• Size of GD packets (rot which consistent), max.22 byte• Stasic communicationYes• User data per job, max.76 byte• User data per job, max.76 byte• User data per job (of which consistent), max.76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)• StroportedYes• as serverYes• as clientYes• as clientYes
Data length, max.32 768 byte• UDPYes; via integrated PROFINET interface and loadable FBs Number of connections, max.8 Data length, max.1472 byteWeb server• supportedYes• User-defined websitesYes• Number of HTTP clients5communication functions / headerPG/OP communicationYesObtal eccord routingYesGlobal data communicationYes• supportedYes• SupportedYesSupportedYesSize of GD packets, max.8• Number of GD packets, receiver, max.8• Size of GD packets, receiver, max.8• Size of GD packets, max.22 byte• Size of GD packets, max.22 byte• Size of GD packets, max.76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_CGET as server)\$7 basic communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• user data per job (of which consistent), max.76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)\$7 communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes<
• UDP       Yes; via integrated PROFINET interface and loadable FBs         • Number of connections, max.       8         • Data length, max.       1472 byte         Web server       Yes         • User-defined websites       Yes         • Number of HTTP clients       5         communication functions / header       Yes         PG/OP communication       Yes         Global data communication       Yes         • supported       Yes         Global data communication       Yes         • Number of GD pops, max.       8         • Number of GD packets, ransmitter, max.       8         • Number of GD packets, ransmitter, max.       8         • Number of GD packets, ransmitter, max.       8         • Size of GD packets, max.       22 byte         Size of GD packets, max.       22 byte         Size of GD packet, max.       22 byte         Size of GD packet, max.       22 byte         Size of GD packet, max.       76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PT T X_GET as server)         • User data per job, max.       76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PT T X_GET as server)         Size of end       Yes         • User data per job (of which consistent), max.       Yes
- 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         Obtat record routing       Yes         Global data communication       Yes         • Number of GD loops, max.       8         • Number of GD packets, max.       8         • Number of GD packets, transmitter, max.       8         • Number of GD packets, transmitter, max.       8         • Number of GD packets, max.       22 byte         • 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; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)         S7 communication       -         • User data per job (of which consistent), max.       76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)         S7 communication       -       -         • User data per job (of
— Data length, max.1 472 byteWeb server• supportedYes• User-defined websitesYes• Number of HTTP clients5communication functions / headerPG/OP communicationYesData record routingYesGlobal data communicationYes• SupportedYes• Number of GD loops, max.8• Number of GD packets, max.8• Number of GD packets, transmitter, max.8• Number of GD packets, transmitter, max.8• Size of GD packets, max.22 byte• Size of GD packets, max.22 byte• Size of GD packets, max.22 byte• Size of GD packets, max.76 byte• User data per job, max.76 byte• User data per job, max.76 byte• User data per job (of which consistent), max.76 byte• Size of GD packets, receiver), max.76 byte• User data per job (of which consistent), max.76 byte• User data per job (of which consistent), max.76 byte• Size of OPYes• as serverYes• as serverYes• as serverYes• as clientYes in integrated PROFINET interface and loadable FB or via CP loadable FB
Web server         • supported       Yes         • User-defined websites       Yes         • Number of HTTP clients       5         communication functions / header       Yes         PG/OP communication       Yes         Global data communication       Yes         • supported       Yes         • Number of GD loops, max.       8         • Number of GD packets, max.       8         • Number of GD packets, treasmitter, max.       8         • Number of GD packets, treceiver, max.       8         • Size of GD packets, treceiver, max.       8         • Size of GD packet (of which consistent), max.       22 byte         • Size of GD packet (of which consistent), max.       22 byte         • Size of GD packet (of which consistent), max.       76 byte         • 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 X_GET as server)         S7 communication
• supported         Yes           • User-defined websites         Yes           • Number of HTTP clients         5           communication functions / header         PG/OP communication           PG/OP communication         Yes           Data record routing         Yes           Global data communication         Yes           • 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, receiver, max.         8           • Size of GD packet, forensistent), max.         22 byte           • Size of GD packet (of which consistent), max.         22 byte           • Stare data per job, max.         76 byte           • User data per job, max.         76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)           \$7 communication         Yes           • supported         Yes           • as server         Yes           • as server         Yes           • as client         Yes via integrated PROFINET interface and loadable FB or via CP loadable FB
• User-defined websites       Yes         • Number of HTTP clients       5         communication functions / header
• Number of HTTP clients       5         communication functions / header         PG/OP communication       Yes         Data record routing       Yes         Global data communication       Yes         • supported       Yes         • Number of GD loops, max.       8         • Number of GD packets, max.       8         • Number of GD packets, max.       8         • Number of GD packets, receiver, max.       8         • Size of GD packets, receiver, max.       8         • Size of GD packets, max.       22 byte         • Size of GD packet (of which consistent), max.       22 byte         • Solution       22 byte         • Size of GD packet (of which consistent), max.       76 byte         • 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 X_GET as server)         S7 communication
communication functions / header         PG/OP communication       Yes         Data record routing       Yes         Global data communication       supported         • 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         • 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       Yes         • User data per job, max.       76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)         S7 communication       Yes         • supported       Yes         • as server       Yes         • as server       Yes         • as client       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
PG/OP communication       Yes         Data record routing       Yes         Global data communication       Yes         Image: supported       Secondary         Image: supported       Secondary         Image: supported       Yes         Image: supported
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         • 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       22 byte         • User data per job, max.       76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)         S7 communication       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • supported       Yes         • as server       Yes         • as client       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
Global data communication       Yes         • 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, transmitter, max.       8         • Number of GD packets, receiver, 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       22 byte         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 X_GET as server)         S7 communication
• supportedYes• 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, receiver, max.22 byte• Size of GD packets, max.22 byte• Size of GD packet (of which consistent), max.22 byteS7 basic communication22 byte• SupportedYes• User data per job, max.76 byte• User data per job (of which consistent), max.76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)S7 communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• as serverYes• as clientYes; via integrated PROFINET interface and loadable FB or via CP loadable FB
<ul> <li>Number of GD loops, max.</li> <li>Number of GD packets, max.</li> <li>Number of GD packets, transmitter, max.</li> <li>Number of GD packets, transmitter, max.</li> <li>Number of GD packets, receiver, max.</li> <li>Size of GD packets, receiver, max.</li> <li>Size of GD packets, max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>Supported</li> <li>User data per job, max.</li> <li>User data per job (of which consistent), max.</li> <li>For byte: 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> <li>S7 communication</li> <li>Supported</li> <li>Supported</li> <li>Yes</li> <li>A get vert of bytes</li> <li>Yes</li> <li>Sa server</li> <li>A supported</li> <li>Yes</li> <li>Yes</li> <li>A get vert of bytes</li> <li>Yes</li> <li>Sa server</li> <li>Yes</li> <li>A get vert of bytes</li> <li>Yes</li> <li>Yes</li></ul>
• 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• Stace of GD packet (of which consistent), max.22 byte• Stace of GD packet (of which consistent), max.22 byte• SupportedYes• User data per job, max.76 byte• User data per job (of which consistent), max.76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)• ST communicationYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes• supportedYes; via integrated PROFINET interface and loadable FB or via CP• as clientYes; via integrated PROFINET interface and loadable FB or via CP
<ul> <li>Number of GD packets, transmitter, max.</li> <li>Number of GD packets, receiver, max.</li> <li>Size of GD packets, max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>22 byte</li> <li>S7 basic communication</li> <li>supported</li> <li>User data per job, max.</li> <li>User data per job (of which consistent), max.</li> <li>76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> <li>S7 communication</li> <li>supported</li> <li>supported</li> <li>supported</li> <li>S7 communication</li> <li>S7 communication</li> <li>S7 communication</li> <li>Yes</li> <li>as server</li> <li>Yes</li> <li>as client</li> <li>Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB</li> </ul>
<ul> <li>Number of GD packets, receiver, max.</li> <li>Size of GD packets, max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>So basic communication</li> <li>Supported</li> <li>User data per job, max.</li> <li>User data per job (of which consistent), max.</li> <li>So byte</li> <li>So byte<!--</td--></li></ul>
<ul> <li>Size of GD packets, max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>Size of GD packet (of which consistent), max.</li> <li>So basic communication</li> <li>supported</li> <li>User data per job, max.</li> <li>User data per job (of which consistent), max.</li> <li>User data per job (of which consistent), max.</li> <li>So byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> <li>So communication</li> <li>Supported</li> <li< td=""></li<></ul>
• 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 X_GET as server)         S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes         Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
S7 basic communication       Yes         • 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 X_GET as server)         S7 communication       • supported         • supported       Yes         • as server       Yes         • as client       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
• 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 X_GET as server)         S7 communication       Yes         • supported       Yes         • as server       Yes         • as client       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
• 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 X_GET as server)         S7 communication       Yes         • supported       Yes         • as server       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
• User data per job (of which consistent), max.       76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)         S7 communication       • supported         • supported       Yes         • as server       Yes         • as client       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
X_GET as server)       S7 communication       • supported     Yes       • as server     Yes       • as client     Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
S7 communication         • supported       Yes         • as server       Yes         • as client       Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB
<ul> <li>supported</li> <li>as server</li> <li>as client</li> <li>Yes</li> <li>Yes; via integrated PROFINET interface and loadable FB or via CP loadable FB</li> </ul>
e as server     e as client     Yes     Yes; via integrated PROFINET interface and loadable FB or via CP     loadable FB
as client     Yes; via integrated PROFINET interface and loadable FB or via CP     loadable FB
loadable FB
User data per job max     See online help of STEP 7 (shared parameters of the SEBs/EBs and
the SFCs/FCs of S7 Communication)
S5 compatible communication
supported Yes; via CP and loadable FC
communication functions / PROFINET CBA (with set target communication load) / header
Setpoint for the CPU communication load     50 %
number of remote connection partners / with 32 PROFINET CBA
number of technological functions / with PROFINET 30 CBA / for master or slave
number of connections / with PROFINET CBA / for     master or slave / total
data volume / of the input variables / with 4 000 byte     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     1 400 byte

performance data / PROFINET CBA / remote interconne	
<ul> <li>— update time / of the remote interconnections / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	500 ms
<ul> <li>number of remote connections to input variables / in the case of acyclic transmission / with PROFINET CBA / maximum</li> </ul>	100
<ul> <li>— number of remote connections to output variables / in the case of acyclic transmission / with PROFINET CBA / maximum</li> </ul>	100
<ul> <li>data volume / as user data for remote interconnections with input variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	2 000 byte
<ul> <li>data volume / as user data for remote interconnections with output variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	2 000 byte
<ul> <li>data volume / as user data for remote interconnections / in the case of acyclic transmission / with PROFINET CBA / per connection / maximum</li> </ul>	1 400 byte
performance data / PROFINET CBA / remote interconne	ction / with cyclic transfer / header
<ul> <li>update time / of the remote interconnections / with cyclical transfer / with PROFINET CBA</li> </ul>	10 ms
<ul> <li>number of remote connections to input variables / with PROFINET CBA / with cyclic transfer / maximum</li> </ul>	200
— number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum	200
<ul> <li>data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum</li> </ul>	2 000 byte
<ul> <li>data volume / as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum</li> </ul>	2 000 byte
<ul> <li>— data volume / as user data for remote interconnections / with cyclical transfer / with PROFINET CBA / per connection / maximum</li> </ul>	450 byte
performance data / PROFINET CBA / HMI variables via I	PROFINET / acyclic / header
<ul> <li>number of connectable HMI stations / for HMI variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	3; 2x PN OPC/1x iMap
<ul> <li>update time / of the HMI variables / in the case of acyclic transmission / with PROFINET CBA</li> </ul>	500 ms
<ul> <li>number of HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum</li> </ul>	200
<ul> <li>data volume / as user data for HMI variables / in the case of acyclic transmission / with PROFINET CBA / maximum</li> </ul>	2 000 byte
performance data / PROFINET CBA / PROFIBUS proxy	
— product function / with PROFINET CBA / PROFIBUS proxy functionality	Yes
— number of coupled PROFIBUS devices / with     PROFIBUS functionality     data volume / with PROFIBUS provv	16 240 byte: Slave dependent
<ul> <li>— data volume / with PROFIBUS proxy functionality / with PROFINET CBA / per connection / maximum</li> </ul>	240 byte; Slave-dependent
Number of connections	
• overall	16
usable for PG communication	15
— reserved for PG communication	1
<ul> <li>adjustable for PG communication, min.</li> <li>adjustable for PG communication, max</li> </ul>	1 15
<ul> <li>— adjustable for PG communication, max.</li> <li>usable for OP communication</li> </ul>	15
usable for OP communication     — reserved for OP communication	1
— adjustable for OP communication, min.	1
— adjustable for OP communication, max.	15

	14
usable for S7 basic communication	14
<ul> <li>reserved for S7 basic communication</li> </ul>	0
<ul> <li>— adjustable for S7 basic communication, min.</li> </ul>	0
<ul> <li>— adjustable for S7 basic communication, max.</li> </ul>	14
<ul> <li>usable for S7 communication</li> </ul>	14
<ul> <li>reserved for S7 communication</li> </ul>	0
<ul> <li>adjustable for S7 communication, min.</li> </ul>	0
<ul> <li>adjustable for S7 communication, max.</li> </ul>	14
<ul> <li>total number of instances, max.</li> </ul>	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	
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	
Status block	Yes; Up to 2 simultaneously
Single step	Yes
Number of breakpoints	4
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
<ul> <li>Forcing, variables</li> </ul>	Inputs, outputs
Number of variables, max.	10
Diagnostic buffer	
• present	Yes
<ul> <li>Number of entries, max.</li> </ul>	500
a diverta bl -	No
— adjustable	
<ul> <li>— adjustable</li> <li>— of which powerfail-proof</li> </ul>	100; Only the last 100 entries are retained
-	
— of which powerfail-proof	100; Only the last 100 entries are retained
<ul><li>— of which powerfail-proof</li><li>Number of entries readable in RUN, max.</li></ul>	100; Only the last 100 entries are retained 499
<ul> <li>— of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>— adjustable</li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> </ul> Service data <ul> <li>can be read out</li> </ul> Ambient conditions	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation</li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation         <ul> <li>min.</li> </ul> </li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes 0 °C
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> </ul> Service data <ul> <li>can be read out</li> </ul> Ambient conditions <ul> <li>Ambient temperature during operation</li> <li>min.</li> <li>max.</li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation         <ul> <li>max.</li> <li>configuration / header</li> </ul> </li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes 0 °C
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation         <ul> <li>min.</li> <li>max.</li> </ul> </li> <li>configuration / header</li> <li>Configuration software</li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes 0 °C 60 °C
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation         <ul> <li>max.</li> <li>configuration / header</li> <li>Configuration software</li> <li>STEP 7</li> </ul> </li> </ul>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes 0 °C
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<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation         <ul> <li>min.</li> <li>max.</li> </ul> </li> <li>configuration / header</li> <li>Configuration software</li> <li>STEP 7</li> </ul> <li>configuration / programming / header</li> <li>Command set</li> <li>Nesting levels</li> <li>System functions (SFC)</li>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes 0 °C 60 °C Yes; V5.5 or higher see instruction list 8 see instruction list
<ul> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Service data</li> <li>can be read out</li> <li>Ambient conditions</li> <li>Ambient temperature during operation         <ul> <li>max.</li> </ul> </li> <li>configuration / header</li> <li>Configuration software</li> <li>STEP 7</li> </ul> <li>configuration / programming / header</li> <li>Command set</li> <li>Nesting levels</li> <li>System functions (SFC)</li> <li>System function blocks (SFB)</li>	100; Only the last 100 entries are retained 499 Yes; From 10 to 499 10 Yes 0 °C 60 °C Yes; V5.5 or higher see instruction list 8 see instruction list
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Know-how protection	
<ul> <li>User program protection/password protection</li> </ul>	Yes
<ul> <li>Block encryption</li> </ul>	Yes; With S7 block Privacy
Dimensions	
Width	40 mm
Height	125 mm
Depth	130 mm
Weights	
Weight, approx.	340 g

last modified:

4/1/2022 🖸