**Data sheet** 

## 6ES7315-2AH14-0AB0



SIMATIC S7-300, CPU 315-2DP Central processing unit with MPI Integr. power supply 24 V DC Work memory 256 KB 2nd interface DP master/slave Micro Memory Card required

General information	
HW functional status	01
Firmware version	V3.3
Product function	
Isochronous mode	Yes
Engineering with	
Programming package	STEP 7 V5.5 + SP1 or higher or STEP 7 V5.2 + SP1 or higher with HSP 218
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	19.2 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
<ul> <li>Repeat rate, min.</li> </ul>	1 s
Input current	
Current consumption (rated value)	850 mA
Current consumption (in no-load operation), typ.	150 mA
Inrush current, typ.	3.5 A
l²t	1 A <sup>2</sup> ·s
Power loss	
Power loss, typ.	4.5 W
Memory	
Work memory	
<ul><li>integrated</li></ul>	256 kbyte
<ul><li>expandable</li></ul>	No
Load memory	
<ul><li>Plug-in (MMC)</li></ul>	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)
<ul><li>without battery</li></ul>	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
PU-blocks	
Number of blocks (total)	1 024; (DBs, FCs, FBs); the maximum number of loadable blocks can
	be reduced by the MMC used.
DB North on Trans.	4.004. November 4.1.40000
Number, max.	1 024; Number range: 1 to 16000
• Size, max.	64 kbyte
FB	4.004.14
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
FC	4 224 N. J. 24 222
Number, max.	1 024; Number range: 0 to 7999
• Size, max.	64 kbyte
OB Number of the control of the cont	and in the state that
Number, max.	see instruction list
• Size, max.	64 kbyte
Number of free cycle OBs     Number of time clare 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     Number of processes classes 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	5; OB 80, 82, 85, 86, 87
Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
per priority class	16
additional within an error OB	4
ounters, 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	
— lower limit	0
— upper limit	999
EC counter	
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	
Number	256
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	No retentivity
Time range	
— lower limit	10 ms
— upper limit	9 990 s
EC timer	
• present	Yes
• Type	SFB
<ul><li>Number</li></ul>	Unlimited (limited only by RAM capacity)
ata areas and their retentivity	
Retentive data area (incl. timers, counters, flags), ma	ix. 128 kbyte

Elag	
Flag  ◆ Size, max.	2 048 byte
•	Yes; MB 0 to MB 2 047
Retentivity available     Retentivity preset	Yes; MB 0 to MB 2 047 MB 0 to MB 15
Retentivity preset     Number of clock memories	
Number of clock memories  Date blocks	8; 1 memory byte
Data blocks	Vi DD
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
per priority class, max.	32 kbyte; Max. 2 KB per block
Address area	
I/O address area	
<ul><li>Inputs</li></ul>	2 048 byte
Outputs	2 048 byte
of which distributed	
— Inputs	2 048 byte
— Outputs	2 048 byte
Process image	
• Inputs	2 048 byte
<ul><li>Outputs</li></ul>	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
Digital channels	·
• Inputs	16 384
— of which central	1 024
Outputs	16 384
of which central	1 024
Analog channels	1 024
•	1 024
• Inputs	
— 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
<ul> <li>Modules per rack, max.</li> </ul>	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     Pobovior of the clock following expire of backup	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 range	0
- radinoci/radinoci range	

Range of values	0 to 2^31 hours (when using SFC 101)
Range of values     Granularity	1 h
retentive	Yes; Must be restarted at each restart
Clock synchronization	100, must be restarted at each restart
• 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	No
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	0
Number of PROFINET interfaces	0
Number of RS 485 interfaces	2; MPI and PROFIBUS DP
Number of RS 422 interfaces	0
1. Interface	
Interface type	Integrated RS 485 interface
Isolated	No
Interface types	
• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	
• MPI	Yes
PROFIBUS DP master	No
<ul> <li>PROFIBUS DP slave</li> </ul>	No
Point-to-point connection	No
MPI	
Transmission rate, max.	187.5 kbit/s
Services	
<ul><li>— PG/OP communication</li></ul>	Yes
— Routing	Yes
<ul> <li>Global data communication</li> </ul>	Yes
<ul><li>— S7 basic communication</li></ul>	Yes
— S7 communication	Yes; Only server, configured on one side
— S7 communication, as client	No
— S7 communication, as server	Yes
2. Interface	
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	
• RS 485	Yes
Output current of the interface, max.	200 mA
Protocols	Na
MPI      DESCRIPTION DE TRANSPORT	No V
PROFIBUS DP master	Yes
PROFIBUS DP slave     Deint to project compaction	Yes
Point-to-point connection  PROFIBLE DR master.	No
PROFIBUS DP master	42 Mhit/a
Transmission rate, max.  Number of DR slaves, max.	12 Mbit/s
Number of DP slaves, max.	124; Per station

- PCOPP communication - Routing - Routing - Ciobal data communication - S7 basic communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - S7 communication, as server - Equidistance - Isochronous mode - S7 communication - DPV1  Address area - In-puts, max - DPV1 - In-puts, max - Outputs, max - Outputs - Outp	Services	
		Voc
Global data communication S7 basic communication S7 communication S7 communication, as client S7 communication, as server Equidistance S7 communication S7 communi		
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- Equidistance	·	
Isochronous mode SYNCFREEZE Activationideactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max DPV1		
- SYNC/FREZEZ - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max DPV1 - Address area - Inputs, max Outputs, max Outpu	·	
Number of DP slaves that can be simultaneously activated/deactivated, max DPV1  Address area Inputs, max Outputs, max Output		
simultaneously activated/deactivated, max. — DPV1  Address area — Inputs, max. — Outputs, max. — User data per DP slave — Inputs, max. — Outputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — User data per DP slave — Inputs, max. — User data per address area, max. — 12 Mbit/s — Address area, max. — 12 Mbit/s — Ves; only with passive interface — PG/OP communication — Somition of the search — PG/OP communication — ST communication — ST communication — ST communication — ST communication, as server — Direct data exchange (slave-to-slave communication) — DPV1  Transfer memory — Inputs — Outputs — Outputs — Outputs — Outputs — PG/OP communication — ST communication — ST communication — PROFIsafe — No  Communication functions / header — PG/OP communication — ST		
Address area  - Inputs, max Outputs, max Outputs - O		8
Address area	-	Yes
- Inputs, max. 2 048 byte 2 048 b		165
		2 048 hyte
User data per DP slave  - Inputs, max Outputs, max It latest GSD file is available at: http://www.siemens.com/profibus 12 Mbit/s - It latest area, max It latest GSD file is available at: http://www.siemens.com/profibus 12 Mbit/s - Outputs, max Outputs, max.		
Inputs, max.		2 040 byte
- Outputs, max.  PROFIBUS DP slave	·	244 hyte
PROFIBUS DP slave  OSD file OTRAINSision rate, max. It latest GSD file is available at: http://www.siemens.com/profibus It automatic baud rate search Address area, max. Ouer data per address area, max. Services  PG/OP communication PS basic communication No ST communication PS communication ST communication PS communication ST communication POPVI No Transfer memory Inputs Outputs PROFisafe No  PGOP communication PROFisafe No  Communication Services  PGOP communication PVes  PGOP communication No  PS communication No  No  PVes PROFisafe No  Communication PS 244 byte PGOP communication Yes  Global data communication Services  PGOP communication Services PGOP communication PGOP communication PGOP communication PGOP communication PGOP communication PG		
SSD file  Transmission rate, max.  automatic baud rate search  Address area, max.  User data per address area, max.  - Routing  - PG/OP communication  - S7 bytes  - Direct data exchange (slave-to-slave communication)  - DPV1  Transfer memory  - Inputs - Outputs  Protocols  PROFIsafe  POCO communication  PROFIsafe  - Outputs  Protocols  PROFIsafe  - Outputs  Protocols  PROFIsafe  - Outputs  Protocols  ROB Data record routing  - SI bytes  Services  - PG/OP communication  - S7 communication  - S7 communication, as client - S7 communication, as evere - Direct data exchange (slave-to-slave communication) - DPV1  No  Transfer memory  - Inputs - Outputs  Protocols  PROFIsafe  No  communication functions / header  PG/OP communication  • supported • Number of GD packets, max. • Size of GD packet, fransmitter, max. • Size of GD packet, for which consistent), max.  • Size of GD packet (of which consistent), max.  • User data per job, max. • User data per job, max. • User data per job, of Which consistent), max.  The latest GSD file is available at: http://www.siemens.com/yrotibus interface  Yes; only with passive interface  Yes; only with passive interface  Yes; only with passive interface  Yes; Only with active interface  Yes; Only with act	·	244 byte
Transmission rate, max.  automatic baud rate search Address area, max.  Address area, max.  Services  PG/OP communication Routing Communication Services  PG/OP communication No Services No Services  PG/OP communication No Services Services No Services		The latest GSD file is available at: http://www.sigmons.com/profibus.cod
automatic baud rate search Address area, max.  User data per address area, max.  32 byte  Services		
Address area, max.  User data per address area, max.  32 byte  Services  - PG/OP communication - Routing - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication - S7 communication, as server - Direct data exchange (slave-to-slave communication) - DPV1 - No  Transfer memory - Inputs - Outputs - Outputs - Outputs - Outputs - PG/OP communication - S7 communication - S7 communication - S7 communication, as server - Direct data exchange (slave-to-slave communication) - DPV1 - No  Transfer memory - Inputs - Outputs - Outputs - Outputs - Outputs - Ves  PGOP communication functions / header - PG/OP communication - Supported - Number of GD loops, max Number of GD packets, transmitter, max Number of GD packets, transmitter, max Number of GD packets, receiver, max Size of GD packets, max Size of GD packets, max Size of GD packet, function consistent), max Size of GD packet (of which		
User data per address area, max.  Services		
Services  - PG/OP communication - Routing - Global data communication - S7 basic communication - S7 communication, as server - Direct data exchange (slave-to-slave communication) - DPV1 - DPV1 - No  Transfer memory - Inputs - Outputs - Outputs - Outputs - Ves  PROFIsafe No  communication functions / header  PG/OP communication  • supported • Number of GD loops, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max.  Test of Supported  Yes  S7 basic communication  • supported • User data per job, max. • Size of Supexet (of which consistent), max.  Test of Supexet (of which supported)  S7 basic communication  • supported • User data per job, max. • User data per job (of which consistent), max.  Test only with active interface  Yes; Only with active interface  Yes; Only server, configured on one side  Yes; Only server, configured on one side  Yes  Yes  Yes  Yes  No  Yes  Yes  No  Transfer memory  Yes  No  Test of Yes  No  Test of Supexet (of which consistent), max.  Yes  Stream of Control of Supexet (of which consistent), max.  Test of Supexet (of bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)		
- PG/OP communication - Routing - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Direct data exchange (slave-to-slave communication) - DPV1 - No  Transfer memory - Inputs - Outputs - Outputs - Outputs - Ves  Communication functions / header  PG/OP communication - Supported - Number of GD packets, max Number of GD packets, transmitter, max Size of GD packets, freceiver, max Size of GD packet (of which consistent), max Supported - Supported - Supported - Supported - Supported - Size of GD packets, receiver, max Size of GD packet (of which consistent), max Communication - Supported - Supported - Supported - Size of GD packet (of which consistent), max Supported - Supported - Supported - Supported - Supported - Size of GD packet (of which consistent), max Size of GD packet (of which consistent), max Supported - Supported		32 byte
- Routing		V
- Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - S7 communication, as server - Direct data exchange (slave-to-slave communication) - DPV1 - DPV1 - No  Transfer memory - Inputs - Outputs - Outputs - Outputs - Outputs - Outputs - Outputs - PROFIsafe - No  communication functions / header - PG/OP communication - supported - Number of GD loops, max Number of GD packets, transmitter, max Number of GD packets, max Number of GD packets, max Size of GD packets, max Size of GD packet, for which consistent), max Size of GD packet (of which consistent), max Supported - User data per job, max User data per job (of which consistent), max Get as server)		
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— S7 communication Yes; Only server, configured on one side  — S7 communication, as server Yes — Direct data exchange (slave-to-slave communication) — DPV1 No  Transfer memory — Inputs 244 byte — Outputs 244 byte  Protocols  PROFIsafe No  communication functions / header  PG/OP communication  • supported • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packet (of which consistent), max.  • Suser data per job (of which consistent), max.  • User data per job (of which consistent), max.  • Object of Special Server (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)		
- S7 communication, as client - S7 communication, as server - Direct data exchange (slave-to-slave communication) - DPV1 No  Transfer memory - Inputs - Outputs 244 byte  Protocols  PROFIsafe communication functions / header  PG/OP communication Data record routing Slobal data communication  • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packet (of which consistent), max.  ST basic communication  • supported • supported • Ves • Size of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max. • User data per job (of which consistent), max.  • Object of Special Service (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)		
— S7 communication, as server — Direct data exchange (slave-to-slave communication) — DPV1 No  Transfer memory — Inputs — Outputs 244 byte  Protocols  PROFIsafe No  communication functions / header  PG/OP communication  • supported • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, treceiver, max. • Size of GD packet (of which consistent), max.  S7 basic communication • supported • supported • Size of GD packet (of which consistent), max.  • Syes  S7 basic communication • supported • Supported • Size of GD packet (of which consistent), max.  S7 bytes • User data per job (of which consistent), max.  F6 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)		
- Direct data exchange (slave-to-slave communication) - DPV1 No  Transfer memory - Inputs - Outputs 244 byte  Protocols  PROFIsafe No  communication functions / header  PG/OP communication  Pata record routing Yes  Global data communication  • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max.  State of GD packet (of which consistent), max.  • User data per job (of which consistent), max.  • User data per job (of which consistent), 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)	·	
communication)  — DPV1  Transfer memory  — Inputs — Outputs  PROFIsafe  PROFIsafe  PG/OP communication functions / header  PG/OP communication  Pessophia for the profice of Supported  Number of GD loops, max.  Number of GD packets, transmitter, max.  Number of GD packets, receiver, max.  Number of GD packets, max.  Number of SD packets, max.  Number of SD packets, receiver, max.  Number of SD packets, receiver, max.  Number of SD packets, max.  N	•	
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Transfer memory  — Inputs — Outputs  244 byte  Protocols  PROFIsafe  No  communication functions / header  PG/OP communication  Pata record routing  Supported  Number of GD loops, max.  Number of GD packets, max.  Number of GD packets, transmitter, max.  Number of GD packets, receiver, max.  Size of GD packets, max.  Size of GD packet (of which consistent), max.  Supported  Ves  Stable of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max.  Stable of GD packet (of which consistent), max.	,	No
- Inputs - Outputs 244 byte  Protocols  PROFIsafe No  communication functions / header  PG/OP communication  Pata record routing Yes  Global data communication  • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Size of GD packet, max. • Size of GD packet (of which consistent), max.  ST basic communication  • supported • User data per job (of which consistent), max.  Yes  Yes  Yes  Yes  Other Street Str		INO
Protocols  PROFIsafe  No  communication functions / header  PG/OP communication  Pate record routing  Supported  Number of GD loops, max.  Number of GD packets, max.  Number of GD packets, transmitter, max.  Number of GD packets, receiver, max.  Size of GD packets, receiver, max.  Size of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max.  Supported  State of GD packet (of which consistent), max.  Puss of GD packet (of which consistent), max.  Puss of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max.  State of GD packet (of which consistent), max.  Puss of bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)	·	244 byta
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PROFIsafe  communication functions / header  PG/OP communication  Pata record routing  Supported  Number of GD loops, max.  Number of GD packets, max.  Number of GD packets, transmitter, max.  Number of GD packets, receiver, max.  Number of GD packets, receiver, max.  Number of GD packets, max.  Size of GD packets, max.  Size of GD packets (of which consistent), max.  Size of GD packet (of which consistent), max.  Pyes  State of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max.	·	244 byte
Communication functions / header  PG/OP communication  Pata record routing  Pes  Global data communication  Supported Number of GD loops, max. Number of GD packets, max. Number of GD packets, transmitter, max. Number of GD packets, receiver, max. Size of GD packets, max. Size of GD packets, max. Size of GD packet (of which consistent), max. Size of GD packet (of which consistent), max.  Pes  Pes  Pes  Pes  Pes  Pes  Pes  Pe		
PG/OP communication  Pes  Data record routing  Global data communication  supported Number of GD loops, max. Number of GD packets, max. Number of GD packets, transmitter, max. Number of GD packets, receiver, max. Number of GD packets, receiver, max. Size of GD packets, max. Size of GD packet (of which consistent), max.  Size of GD packet (of which consistent), max.  Yes  2 byte  2 byte  37 basic communication  supported User data per job, max. User data per job (of which consistent), max.  Yes  4 byte (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)	1 11 1	No
Data record routing  Global data communication  supported Number of GD loops, max. Number of GD packets, max. Number of GD packets, transmitter, max. Number of GD packets, receiver, max. Size of GD packets, max. Size of GD packet (of which consistent), max. Size of GD packet (of which consistent), max.  Yes  Yes  8  22 byte  22 byte  S7 basic communication supported User data per job, max. User data per job (of which consistent), max.  Yes  76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)	communication functions / header	<u>,</u>
Global data communication  • supported • Number of GD loops, max. • Number of GD packets, max. • Number of GD packets, transmitter, max. • Number of GD packets, receiver, max. • Number of GD packets, receiver, max. • Size of GD packets, max. • Size of GD packet (of which consistent), max.  22 byte  S7 basic communication • supported • User data per job, max. • User data per job (of which consistent), max.  76 byte 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)	PG/OP communication	Yes
<ul> <li>supported</li> <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, receiver, 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>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</li> <li>76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>	Data record routing	Yes
<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, receiver, 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>Size of GD packet (of which consistent), max.</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>T6 byte</li> <li>T6 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>	Global data communication	
<ul> <li>Number of GD packets, max.</li> <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>Size of GD packet (of which consistent), max.</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>T6 byte</li> <li>With X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>	• supported	Yes
<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>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</li> <li>76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>	<ul> <li>Number of GD loops, max.</li> </ul>	8
<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>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>T6 byte</li> <li>With X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>	<ul> <li>Number of GD packets, max.</li> </ul>	8
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S7 basic communication  • supported  • User data per job, max.  • 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)		
<ul> <li>supported</li> <li>User data per job, max.</li> <li>User data per job (of which consistent), max.</li> <li>Yes</li> <li>76 byte</li> <li>76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>		
<ul> <li>User data per job, max.</li> <li>User data per job (of which consistent), max.</li> <li>T6 byte</li> <li>76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT X_GET as server)</li> </ul>		Yes
• 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)		
		76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or
	S7 communication	
• supported Yes		Yes

• as server	Yes
• as client	Yes; Via CP and loadable FB
<ul> <li>User data per job, max.</li> </ul>	180 byte; With PUT/GET
User data per job (of which consistent), max.	240 byte; as server
S5 compatible communication	
• supported	Yes; via CP and loadable FC
Number of connections	
overall	16
<ul> <li>usable for PG communication</li> </ul>	15
<ul> <li>reserved for PG communication</li> </ul>	1
<ul> <li>adjustable for PG communication, min.</li> </ul>	1
<ul> <li>adjustable for PG communication, max.</li> </ul>	15
<ul> <li>usable for OP communication</li> </ul>	15
<ul> <li>reserved for OP communication</li> </ul>	1
<ul> <li>adjustable for OP communication, min.</li> </ul>	1
<ul> <li>adjustable for OP communication, max.</li> </ul>	15
<ul> <li>usable for S7 basic communication</li> </ul>	12
<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>	12
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	300
	Vacally to 2 simultaneously
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 30
Number of variables, max.  of which status variables, max.	30
<ul><li>— of which status variables, max.</li><li>— of which control variables, max.</li></ul>	14
	14
Forcing	Yes
• Forcing	
Forcing, variables     Number of variables may	Inputs, outputs
Number of variables, max.  Diagnostic buffer.	10
Diagnostic buffer	Voe
• present	Yes
Number of entries, max.	500 No.
— adjustable	No 100: Only the last 100 entries are retained
— of which powerfail-proof	100; Only the last 100 entries are retained
Number of entries readable in RUN, max.	Var. France 40 to 400
— adjustable	Yes; From 10 to 499
— preset	10
Service data	· · · · · · · · · · · · · · · · · · ·
can be read out	Yes
Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	60 °C
configuration / header	
Configuration software	
• STEP 7	Yes; V5.2 SP1 or higher with HW update
configuration / programming / header	
Command set	see instruction list
Nesting levels	8
	see instruction list
<ul> <li>System functions (SFC)</li> </ul>	300 1131 401011 1131

<ul> <li>System function blocks (SFB)</li> </ul>	see instruction list
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
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.	290 g

8/24/2021

last modified: