## **SIEMENS**

## **Data sheet**

6ES7315-2FJ14-0AB0



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

Figure similar

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General information	
HW functional status	01
Firmware version	V3.2
Product function	
Isochronous mode	Yes; Via PROFIBUS DP or PROFINET interface
Engineering with	
<ul> <li>Programming package</li> </ul>	STEP 7 V5.5 or higher, Distributed Safety V5.4 SP4
Supply voltage	
Rated value (DC)	24 V
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines (recommendation)	2 A min.
Mains buffering	
<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
l²t	1 A <sup>2</sup> ·s
Power loss	
Power loss, typ.	4.65 W
Memory	
Work memory	
• integrated	512 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 a
Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	
for bit operations, typ.	0.05 μs
for word operations, typ.	0.09 μs
for fixed point arithmetic, typ.	0.12 μs
for floating point arithmetic, typ.	0.45 μs

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	
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	4004 N. J. 2000
Number, max.      Size may:	1 024; Number range: 0 to 7999
• Size, max.  OB	64 kbyte
• Size, max.	64 kbyte
Number of free cycle OBs	1; OB 1
Number of fine alarm OBs	1; OB 10
Number of time diam OBs     Number of delay alarm OBs	2; OB 20, 21
Number of cyclic interrupt OBs	4; OB 32, 33, 34, 35
Number of cyclic interrupt OBs     Number of process alarm OBs	1; OB 40
Number of DPV1 alarm OBs	3; OB 55, 56, 57
Number of isochronous mode OBs	1; OB 61
Number of startup OBs	1; OB 100
Number of asynchronous error OBs	6; OB 80, 82, 83, 85, 86, 87 (OB83 only for PROFINET IO)
Number of synchronous error OBs	2; OB 121, 122
Nesting depth	
per priority class	16
<ul> <li>additional within an error OB</li> </ul>	4
ounters, timers and their retentivity	
S7 counter	
Number	256
Retentivity	
— adjustable	Yes
— preset	Z 0 to Z 7
Counting range	
— adjustable	Yes
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	0.00
Number  Petentivity	256
Retentivity	Ven
— adjustable	Yes
— preset	No retentivity
Time range  — lower limit	10 ms
— lower limit — upper limit	9 990 s
— upper infinit	0 000 0
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
ata areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	128 kbyte
Flag	,,
• Size, max.	2 048 byte
Retentivity available	Yes; MB 0 to MB 2 047
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte

Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
per priority class, max.	32 768 byte; Max. 2048 bytes per block
Address area	
I/O address area	
• Inputs	2 048 byte
<ul> <li>Outputs</li> </ul>	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
<ul> <li>Inputs, adjustable</li> </ul>	2 048 byte
<ul> <li>Outputs, adjustable</li> </ul>	2 048 byte
<ul> <li>Inputs, default</li> </ul>	128 byte
Outputs, default	128 byte
Subprocess images	
Number of subprocess images, max.	1; With PROFINET IO, the length of the user data is limited to 1600 bytes
Digital channels	
• Inputs	16 384
— of which central	1 024
<ul> <li>Outputs</li> </ul>	16 384
— of which central	1 024
Analog channels	
• Inputs	1 024
— of which central	256
• Outputs	1 024
— of which central	256
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	,
• integrated	1
• via CP	4
Number of operable FMs and CPs (recommended)	0
<ul><li>► FM</li><li>◆ CP, PtP</li></ul>	8
	8 10
• CP, LAN	10
Rack • Racks, max.	4
Modules per rack, max.	8
• Modules per rack, max.  Time of day	
Clock	
Hardware clock (real-time)	Yes
retentive and synchronizable	Yes
Backup time	6 wk; At 40 °C ambient temperature
Deviation per day, max.	10 s; Typ.: 2 s
Behavior of the clock following POWER-ON	Clock continues running after POWER OFF
Behavior of the clock following expiry of backup period	the clock continues at the time of day it had when power was switched off
Operating hours counter	and of any in the controlled off
Number	1
Number/Number range	0
- J-	0
<ul> <li>Range of values</li> </ul>	
<ul><li>Range of values</li><li>Granularity</li></ul>	0 to 2^31 hours (when using SFC 101) 1 h
	0 to 2^31 hours (when using SFC 101)
Granularity	0 to 2^31 hours (when using SFC 101) 1 h
Granularity     retentive	0 to 2^31 hours (when using SFC 101) 1 h
Granularity     retentive  Clock synchronization	0 to 2^31 hours (when using SFC 101) 1 h Yes; Must be restarted at each restart

• to DP, master	Yes; With DP slave only slave clock
• to DP, slave	Yes
• in AS, master	Yes
• in AS, slave	Yes
on Ethernet via NTP	Yes; As client
Digital inputs	
Number of digital inputs	0
Digital outputs	
Number of digital outputs	0
Analog inputs	
Number of analog inputs	0
Analog outputs	
Number of analog outputs	0
Interfaces	
Number of industrial Ethernet interfaces	1
Number of PROFINET interfaces	1
Number of RS 485 interfaces	1
Number of RS 422 interfaces	0
1. Interface	
	Integrated DS 405 interface
Interface type	Integrated RS 485 interface
Isolated	Yes
Interface types	Von
RS 485  Output surrent of the interface may	Yes
Output current of the interface, max.	200 mA
Protocols	· ·
• MPI	Yes
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes
Point-to-point connection	No
MPI	
Transmission rate, max.	12 Mbit/s
Services	
<ul> <li>PG/OP communication</li> </ul>	Yes
	Yes
— Routing	
Routing     Global data communication	Yes
-	Yes Yes
— Global data communication	Yes
<ul><li>— Global data communication</li><li>— S7 basic communication</li></ul>	Yes Yes
<ul><li>Global data communication</li><li>S7 basic communication</li><li>S7 communication</li></ul>	Yes Yes Yes
<ul> <li>Global data communication</li> <li>S7 basic communication</li> <li>S7 communication</li> <li>S7 communication, as client</li> </ul>	Yes Yes Yes No; but via CP and loadable FB
<ul> <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>	Yes Yes Yes No; but via CP and loadable FB
— Global data communication  — S7 basic communication  — S7 communication  — S7 communication, as client  — S7 communication, as server  PROFIBUS DP master	Yes Yes Yes No; but via CP and loadable FB Yes
— Global data communication  — S7 basic communication  — S7 communication  — S7 communication, as client  — S7 communication, as server  PROFIBUS DP master  • Transmission rate, max.	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s
— Global data communication  — S7 basic communication  — S7 communication  — S7 communication, as client  — S7 communication, as server  PROFIBUS DP master  • Transmission rate, max.  • Number of DP slaves, max.	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s
- Global data communication - S7 basic communication - S7 communication - S7 communication, as client - S7 communication, as server  PROFIBUS DP master  • Transmission rate, max. • Number of DP slaves, max.  Services	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124
— Global data communication — S7 basic 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	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes
— Global data communication — S7 basic 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	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes
- Global data communication - S7 basic 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 - Global data communication	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes Yes No Yes; I blocks only
— Global data communication — S7 basic 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 — Global data communication — S7 basic communication — S7 communication — S7 communication	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes No
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes No Yes
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes No Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - Isochronous mode	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes No Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS DP or PROFINET IO
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - Isochronous mode - SYNC/FREEZE	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes Yes No Yes; I blocks only Yes No Yes Of the state o
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - Isochronous mode  - SYNC/FREEZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes No Yes On One Yes Yes Yes Yes Yes Yes Yes Yes Yes Ye
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - Isochronous mode  - SYNC/FREEZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave)	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes No Yes; I blocks only Yes No Yes Yes Por PROFINET IO Yes Yes Yes Yes Yes Yes
- Global data communication - S7 basic 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 - Global data communication - S7 basic communication - S7 communication - S7 communication - S7 communication, as client - S7 communication, as server - Equidistance - Isochronous mode  - SYNC/FREEZE - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max Direct data exchange (slave-to-slave communication)	Yes Yes Yes No; but via CP and loadable FB Yes  12 Mbit/s 124  Yes Yes Yes No Yes; I blocks only Yes No Yes Yes Por PROFINET IO Yes

— Inputs, max.	2 kbyte
— Outputs, max.	2 kbyte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
PROFIBUS DP slave	
<ul> <li>Transmission rate, max.</li> </ul>	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
<ul> <li>Global data communication</li> </ul>	No
<ul> <li>S7 basic communication</li> </ul>	No
— S7 communication	Yes
<ul> <li>S7 communication, as client</li> </ul>	No
<ul> <li>S7 communication, as server</li> </ul>	Yes; Connection configured on one side only
<ul> <li>Direct data exchange (slave-to-slave</li> </ul>	Yes
communication)	
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	
Interface type	PROFINET
Isolated	Yes
automatic detection of transmission rate	Yes; 10/100 Mbit/s
Autonegotiation	Yes
Autocrossing	Yes
Change of IP address at runtime, supported	Yes
Interface types	
RJ 45 (Ethernet)	Yes
Number of ports	2
• integrated switch	Yes
Protocols	
• MPI	No
PROFINET IO Controller	Yes; Also simultaneously with IO-Device functionality
PROFINET IO Device	Yes; Also simultaneously with IO Controller functionality
PROFINET CBA	Yes
PROFIBUS DP master	No
PROFIBUS DP slave	No
Open IE communication     Web conver	Yes; Via TCP/IP, ISO on TCP, and UDP
Web server  Media redundancy	Yes; only read function
Media redundancy      DECINET IO Controller	Yes
PROFINET IO Controller	400 Mi.W-
Transmission rate, max.	100 Mbit/s
Services	w.
— PG/OP communication	Yes
— Routing	Yes
— S7 communication	Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32
— Isochronous mode	Yes; OB 61; isochronous mode can only be used alternatively on PROFIBUS
IDT	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</li> </ul>	128

a	
flexibility"	
— of which in line, max.	61
Number of connectable IO Devices for RT, max.	128
— of which in line, max.	128
Activation/deactivation of IO Devices	Yes
<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
<ul> <li>Number of IO Devices per tool, max.</li> </ul>	8
<ul> <li>Device replacement without swap medium</li> </ul>	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
<ul> <li>User data consistency, max.</li> </ul>	1 024 byte
PROFINET IO Device	
Services	
— PG/OP communication	Yes
— Routing	Yes
— S7 communication	Yes; With loadable FBs, max. configurable connections: 14, max. number of instances: 32
— Isochronous mode	No
— IRT	Yes
— PROFlenergy	Yes; With SFB 73 / 74 prepared for loadable PROFlenergy standard FB for I-Device
— Shared device	Yes
<ul> <li>Number of IO Controllers with shared device, max.</li> </ul>	2
Transfer memory	
— Inputs, max.	1 440 byte; Per IO Controller with shared device
— Outputs, max.	1 440 byte; Per IO Controller with shared device
Submodules	
— Number, max.	64
— User data per submodule, max.	1 024 byte
PROFINET CBA	
<ul> <li>acyclic transmission</li> </ul>	Yes
cyclic transmission	Yes
Open IE communication	
Number of connections, max.	8
Local port numbers used at the system end	0, 20, 21, 23, 25, 80, 102, 135, 161, 443, 8080, 34962, 34963, 34964, 65532, 65533, 65534, 65535
Keep-alive function, supported	Yes
Protocols	
PROFIsafe	Yes
Redundancy mode	
Media redundancy	
<ul> <li>Switchover time on line break, typ.</li> </ul>	200 ms; PROFINET MRP
— Number of stations in the ring, max.	50
Open IE communication	
• TCP/IP	Yes; via integrated PROFINET interface and loadable FBs
<ul> <li>Number of connections, max.</li> </ul>	8
<ul> <li>Data length for connection type 01H, max.</li> </ul>	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
	32 768 byte
— Data length, max.	· ·
UDP     Number of connections, may	Yes; via integrated PROFINET interface and loadable FBs
— Number of connections, max.	8
— Data length, max.	1 472 byte

Web server	
• supported	Yes; only read function
User-defined websites	Yes
Number of HTTP clients	5
communication functions / header	
PG/OP communication	Yes
Data record routing	Yes
Global data communication	165
• supported	Yes
Number of GD loops, max.	8
Number of GD packets, max.	8
Number of GD packets, transmitter, max.	8
Number of GD packets, receiver, max.	8
Size of GD packets, max.	22 byte
<ul> <li>Size of GD packet (of which consistent), max.</li> </ul>	22 byte
S7 basic communication	
<ul> <li>communication function / S7 basic communication</li> </ul>	Yes
User data per job, max.	76 byte
User data per job (of which consistent), max.	76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server)
S7 communication	
• supported	Yes
• as server	Yes
• as client	Yes; via integrated PROFINET interface and loadable FB or via CP and loadable FB
User data per job, max.	See online help of STEP 7 (shared parameters of the SFBs/FBs and of the SFCs/FCs of S7 Communication)
S5 compatible communication	
supported	Yes; via CP and loadable FC
communication functions / PROFINET CBA (with set target commu	
Setpoint for the CPU communication load	50 %
Number of remote interconnection partners	32
Number of functions, master/slave     Total of all master/slave connections.	30
<ul> <li>Total of all master/slave connections</li> <li>Data length of all incoming connections master/slave,</li> </ul>	1 000 4 000 byte
<ul> <li>max.</li> <li>Data length of all outgoing connections master/slave, max.</li> </ul>	4 000 byte
Number of device-internal and PROFIBUS interconnections	500
Data length of device-internal und PROFIBUS interconnections, max.	4 000 byte
Data length per connection, max.	1 400 byte
performance data / PROFINET CBA / remote interconnection /	·
— Sampling interval, min.	500 ms
<ul> <li>Number of incoming interconnections</li> </ul>	100
<ul> <li>Number of outgoing interconnections</li> </ul>	100
<ul> <li>Data length of all incoming interconnections, max.</li> </ul>	2 000 byte
<ul> <li>Data length of all outgoing interconnections, max.</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 interconnection /	/ with cyclic transfer / header
— Transmission frequency: Transmission interval, min.	10 ms
number of remote connections to input variables / with PROFINET CBA / with cyclic transfer / maximum	200
— number of remote connections to output variables / with cyclical transfer / with PROFINET CBA / maximum	200
— data volume / as user data for remote interconnections with input variables / with cyclical transfer / with PROFINET CBA / maximum	2 000 byte
— data volume / as user data for remote interconnections with output variables / with cyclical transfer / with PROFINET CBA / maximum	2 000 byte
— data volume / as user data for remote	450 byte

interconnections / with cyclical transfer / with PROFINET CBA / per connection / maximum

Performance data / PROFINET CEA / HM variables vs PROFINET / a-polic / header	PROFINET CBA / per connection / maximum	
(PN OPC-littlap) - Half variable updating - Number of HMI variables, max. 200 byte - Data length of al HMI variables, max. 2 000 byte - Data length of al HMI variables, max. 2 000 byte - Data length of al HMI variables, max. 2 000 byte - Number of linked PRO/HBUS devices - Number of linked PRO/HBUS devices - Number of linked PRO/HBUS devices - Number of communication, max.  1 5 - Usable for PS communication - reserved for PS communication - adjustable for PS communication, max. 1 5 - usable for PS communication - adjustable for PS communication, max. 1 5 - usable for OP communication - adjustable for OP communication, max. 1 1 - adjustable for OP communication, max. 1 1 - adjustable for OP communication, max. 1 1 - adjustable for OP communication, max. 1 2 - usable for ST basic communication, max. 1 1 - adjustable for OP communication, max. 1 2 - usable for ST basic communication, max. 1 3 - usable for ST basic communication, max. 1 4 - usable for ST communication - adjustable for ST communication, max. 1 4 - usable for ST communication - adjustable for ST communication, max. 1 4 - usable for ST communication - adjustable for ST communication, max. 1 4 - usable for ST communication - adjustable for ST communication, max. 1 4 - usable for ST communication - adjustable for ST communication, max. 1 4 - usable for ST communication, max. 1 5 - usable for ST communication - usable for ST communication, max. 2 5 - usable for ST communication - usable for ST communication, max. 2 6 - usable for ST communication, max. 3 7 - usable for ST communication - usable for ST communication, max. 4 1 - usable for ST communication, max. 5 1 - usable for ST communication, max. 5 1 - usable for ST communication, max. 6 1 - usable for ST communication, max. 7 1 - usable for ST communication, max. 8 1 - usable for ST communication, max. 9 1 - usable for ST communication. 9 1 -	performance data / PROFINET CBA / HMI variables via PROF	FINET / acyclic / header
- Number of FMM variables. max. 2000 byte performance sata / PROFINIST CBA / PROFIBUS proxy functionality / header  - supported - Supported - Number of Initiad PROFIBUS devices - Data length per connection. max. 240 byte: Slave-dependent  Number of connections  • overall - Usable for PC communication - reserved for PQ communication - adjustable for PC communication, max. 15 - adjustable for PC communication, max. 15 - usable for PC communication, max. 15 - usable for PC communication - adjustable for PC communication, min. 1 - adjustable for PC communication, min. 1 - adjustable for PC communication, min. 15 - usable for ST basic communication, min. 15 - usable for ST basic communication, min. 15 - usable for ST basic communication 14 - reserved for ST basic communication 10 - adjustable for ST basic communication, max. 14 - usable for ST communication, max. 14 - usable for ST communication 14 - reserved for ST communication 15 - adjustable for ST communication 10 - adjustable for ST communication 11 - adjustable for ST communica		3; 2x PN OPC/1x iMap
— Data length of all HMI variables, max.   2.000 byte	— HMI variable updating	500 ms
Performance data / PROFINET CBA / PROFIBUS proxy functionality / header	— Number of HMI variables	200
supported Number of linked PROFIBUS devices 16	<ul> <li>Data length of all HMI variables, max.</li> </ul>	2 000 byte
— Number of Inteked PROPIBLIS devices   240 byte; Slave-dependent	performance data / PROFINET CBA / PROFIBUS proxy functi	onality / header
Number of connections  • overall  • usable for PG communication  — reserved for PG communication  — adjustable for PC communication  — adjustable for PC communication  — adjustable for PC communication  — reserved for PG communication  — adjustable for PC communication  — reserved for PC communication  — reserved for PC communication  — reserved for PC communication  — adjustable for ST basic communication  — adjustable for ST basic communication  — adjustable for ST basic communication  — adjustable for ST communication  — adjustable	— supported	Yes
Number of connections  • overall	Number of linked PROFIBUS devices	16
Number of connections  • overall	<ul> <li>Data length per connection, max.</li> </ul>	240 byte; Slave-dependent
everall   everall   f6		
usable for PG communication		16
- reserved for PG communication		
adjustable for PG communication, min adjustable for PG communication, max reserved for OP communication reserved for OP communication, min adjustable for OP communication, min adjustable for OP communication, max susable for S7 basic communication, max susable for S7 basic communication reserved for S7 basic communication reserved for S7 basic communication, min adjustable for S7 communication, max served for S7 communication served for S7 comm		
- adjustable for PG communication, max.  • usable for OP communication  - reserved for OP communication, min.  - adjustable for OP communication, max.  • usable for S7 basic communication, max.  • usable for S7 basic communication, min.  - adjustable for S7 communication  - reserved for S7 communication  - adjustable for S7 communication, max.  • usable for S7 communication, max.  • total number of instances, max.  • total number of orgin stations for message functions, max.  S7 message functions  S14, 32 as PROFINET: 24 max.  S7 message functions  S14, 32 as PROFINET: 24 max.  S7 message functions  S15 total stock  S7 messages  Yes  simultaneously active Alarm S blocks, max.  - adjustable for S7 communication, max.  4  Status block  S16 Depending on the configured connections for PG/OP and S7 basic communication.  Yes  unable for S7 total status variables, max.  - adjustable for S7 total status variables, max.  - of which control variables, max.  - of which status variables, max.  - of which powerfall-proof  • Number of entries, max.  - adjustable  - of which powerfall-proof  • Number of entries, max.  - adjustable  - of which powerfall-proof  • Number of entries readable in RUN, max.  - adjustable  - present  • Number of entries readable in RUN, max.  - adjustable  - present  • Number of entries readable in RUN, max.  - adjustable  - present  • Number of entries readable in RUN, max.  - adjustable  - present  - present		
usable for OP communication  reserved for OP communication  adjustable for OP communication, min.  adjustable for OP communication, max.  usable for S7 basic communication  reserved for S7 basic communication  reserved for S7 basic communication, min.  adjustable for S7 basic communication, min.  adjustable for S7 basic communication, max.  usable for S7 communication  reserved for S7 basic communication, max.  usable for S7 communication  reserved for S7 communication, max.  usable for S7 communication, min.  adjustable for S7 communication.  adjustable for S7 commun	•	
- reserved for OP communication   1	•	
- adjustable for OP communication, min adjustable for OF communication, max.  - susble for S7 basic communication - reserved for S7 basic communication, min adjustable for S7 basic communication, min adjustable for S7 basic communication, min adjustable for S7 communication - adjustable for S7 communication - adjustable for S7 communication, min adjustable for S7 communication, max total number of instances, max usable for routing - x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max usable for routing - x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1 sa MPI: max. 10; X1 as DP master: max. 24; X1 as DP stave (active): max x1		
- adjustable for OP communication		
usable for S7 basic communication  reserved for S7 basic communication  adjustable for S7 basic communication, min.  adjustable for S7 ommunication  reserved for S7 communication  adjustable for S7 communication  reserved for S7 communication  adjustable for S7 communication  adjustable for S7 communication  adjustable for S7 communication, min.  by task MPI; max. 10; X1 as DP master: max. 24; X1 as DP slave (active); max. 14; 22 as PROFINET; 24 max.  15 message functions  16, Depending on the configured connections for PG/OP and S7 basic communication.  Process diagnostic messages  yes  simultaneously active Alarm-S blocks, max.  20 per second process of the same states of the	•	
- reserved for S7 basic communication 0 - adjustable for S7 basic communication, min. 0 - adjustable for S7 basic communication, max. 14 • usable for S7 communication 14 - reserved for S7 communication 0 - adjustable for S7 communication, min. 0 - adjustable for S7 communication, max. 14 • total number of instances, max 32 • usable for routing 2 - usable for routing 3 - usable for routing 4 - usable for routing 5 - usable for routing 5 - usable for routing 6 - usable for routing 7 - usable for routing 7 - usable for routing 8 - usable for routing 9 - usable for routing	•	
adjustable for S7 basic communication, min adjustable for S7 basic communication, max.  usable for S7 communication reserved for S7 communication adjustable for S7 communication, min adjustable for S7 communication, min adjustable for S7 communication, min adjustable for S7 communication, max.  total number of instances, max usable for routing visable for routing visabl		
- adjustable for S7 basic communication		
usable for S7 communication  reserved for S7 communication  adjustable for S7 communication, min.  adjustable for S7 communication, min.  total number of instances, max.  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  simultaneously active Alarm-S blocks, max.  300  Test commissioning functions  Status block  Status block  Yes; Up to 2 simultaneously Single step  Ves  Number of breakpoints  4  Status/control variable  Variables  Number of variables, max.  of which status variables, max.  of which control variables, max.  of which control variables, max.  14  Forcing  Forcing  Forcing, variables  Number of variables, max.  10  Diagnostic buffer  present  Pesent  Number of entries, max.  adjustable  of which powerfall-proof  Number of entries readable in RUN, max.  adjustable  preset  Peset  10  Service data	•	
- reserved for S7 communication 0 - adjustable for S7 communication, min. 0 - adjustable for S7 communication, min. 14 • total number of instances, max. 32 • usable for routing X1 as MPI: max. 10, X1 as DP master: max. 24; X1 as DP slave (active): max. 14; X2 as PROFINET: 24 max.  S7 mossage 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 variable Yes • Variables Inputs, outputs, memory bits, DB, times, counters • Number of variables, max. 30 • of which status variables, max. 30 • Forcing • Forcing, variables, max. 10  Diagnostic buffer • present Yes • Number of entries, max. 500 • Number of entries, max. 499 • preset 10	•	
adjustable for S7 communication, min adjustable for S7 communication, max.  • total number of instances, max. • usable for routing  X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max.  X1 as MPI: max. 10; X1 as DP master: max. 24; X1 as DP slave (active): max.  X57 message functions  Number of login stations for message functions, max.  Process diagnostic messages simultaneously active Alarm-S blocks, max.  Test commissioning functions  Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints  4  Status/control  • Status/control  • Status/control variable • Variables • Number of variables, max of which status variables, max of which control variables, max.  - of which control variables, max.  - of which control variables, max.  - of which control variables, max of which control variables, max.  - of which process diagnostic max.  - of which control variables, max.  - of which process diagnostic message functions, max.  - of which process diagnostic message functions and process diagnostic message fun		
- adjustable for S7 communication, max.  • total number of instances, max.  • usable for routing  **Y 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.  **Process diagnostic messages**  **Process dia		
• total number of instances, max.     • 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.  Process diagnostic messages Yes simultaneously active Alarm-S blocks, max.  Test commissioning functions  Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints  4  Status/control variables Variables Number of variables, max. Of which status variables, max. Of which control variables, max. 14  Forcing Forcing Forcing Forcing, variables Number of variables, max. Ambient of variables, max. Objective the status variables, max. Objective the status variables, max. Objective the status variables, max. Torcing Forcing	•	
vusable 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.  Number of login stations for messages Number of login stations for messages yes simultaneously active Alarm-S blocks, max.  7 yes simultaneously active Alarm-S blocks, max.  Test commissioning functions  Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints 4  Status/control  Status/control  Status/control  Status/control variables Number of variables, max. Of which status variables, max. Of which control variables, max. Horring Forcing Forcin	•	
14; X2 as PROFINET: 24 max.		
Number of login stations for message functions, max.  Number of login stations for message functions, max.  Process diagnostic messages simultaneously active Alarm-S blocks, max.  200  Test commissioning functions  Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints 4  Status/control  Status/control  Status/control  Status/control variable Variables Number of variables, max. Of which status variables, max. Hofring Forcing F	usable for routing	
Number of login stations for message functions, max.  Process diagnostic messages  simultaneously active Alarm-S blocks, max.  300  Test commissioning functions  Status block  Single step  Number of breakpoints  4  Status/control  Status/control variables  Number of which status variables, max.  - of which control variables, max.  - of which ontrol variables, max.  14  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.  10  Diagnostic buffer  • present  • present  • present  • Number of entries, max.  - adjustable  - of which powerfail-proof  • Number of entries readable in RUN, max.  - adjustable  - preset  - preset  10  Service data	S7 message functions	
Process diagnostic messages simultaneously active Alarm-S blocks, max.  Test commissioning functions  Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints  • Status/control • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max.  14  Forcing • Forcing • Forcing, variables, max.  • Number of variables, max.  • Number of variables, max.  10  Diagnostic buffer • present • Number of entries, max.  — adjustable — of which powerfail-proof • Number of entries readable in RUN, max.  — adjustable — adjustable — preset  • preset  • preset  • Prese • preset  • Preset  • Prese • Preset • Number of entries readable in RUN, max.  — adjustable — preset  • Preset		16: Depending on the configured connections for PG/OP and S7 basic
simultaneously active Alarm-S blocks, max.  Test commissioning functions  Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints 4  Status/control  • Status/control variable • Variables • Number of variables, max. — of which status variables, max. — of which control variables, max.  14  Forcing  • Forcing • Forcing, variables • Number of variables, max.  10  Diagnostic buffer • present • Number of entries, max. — adjustable — of which powerfail-proof • Number of entries readable in RUN, max.  499 — adjustable — preset — 10  Service data		communication
Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints 4 Status/control variable Yes • Variables Inputs, outputs, memory bits, DB, times, counters • Number of variables, max. 30 • of which control variables, max. 14  Forcing • Forcing, variables, max. 10 Diagnostic buffer • present • Number of entries, max. 500 • Number of entries readable in RUN, max. 499 • Augustable • Number of entries readable in RUN, max. 499 • preset		1 65
Status block Yes; Up to 2 simultaneously Single step Yes Number of breakpoints 4 Status/control  Status/control Yes  Variables Inputs, outputs, memory bits, DB, times, counters  Number of variables, max. 30  - of which status variables, max. 14  Forcing  Forcing Yes Forcing, variables Inputs, outputs Number of variables, max. 10  Diagnostic buffer  present Yes Number of entries, max. 500  - adjustable No - of which powerfall-proof 100 Number of entries readable in RUN, max. 499 - adjustable Yes - preset 10  Service data	simultaneously active Alarm S blocks, may	300
Single step  Number of breakpoints  4  Status/control  Status/control variable  Ves  Inputs, outputs, memory bits, DB, times, counters  Inputs, outputs, memory bits, DB, times, counters  Number of variables, max.  of which satus variables, max.  of which control variables, max.  14  Forcing  Forcing  Forcing, variables  Number of variables, max.  Inputs, outputs  Number of variables, max.  10  Diagnostic buffer  present  present  No  adjustable  of which powerfail-proof  Number of entries readable in RUN, max.  adjustable  adjustable  of which powerfail-proof  Number of entries readable in RUN, max.  adjustable  preset  Pes  preset  10  Service data		300
Number of breakpoints  Status/control  Status/control variable Variables Number of variables, max. Of which status variables, max. Of which control variables, max. Of which control variables, max. Of which control variables, max.  Forcing Forcing Forcing, variables Number of variables, max.  Number of variables, max.  Present Opiagnostic buffer  Present Number of entries, max. Of which powerfail-proof Number of entries readable in RUN, max. Opiagnatic buffer  Augustable Opiagnatic buffer No Opiagnatic proof Number of entries readable in RUN, max. Opiagnatic preset Opiest  Service data	Test commissioning functions	
Status/control  Status/control variable  Ves Inputs, outputs, memory bits, DB, times, counters  Inputs, outputs, DB, times, counters  Ves  Forcing  Forcing  Forcing  Forcing  Forcing  Forcing  Forcing  Forcing  Forcing, variables  Number of variables, max.  Inputs, outputs  Ves  Inputs, outputs  Number of variables, max.  Inputs, outputs  No  Juganostic buffer  Present  Present  No  Adjustable  Of which powerfail-proof  No  Number of entries readable in RUN, max.  Adjustable  Preset  Preset  Inputs, outputs  In	Test commissioning functions Status block	Yes; Up to 2 simultaneously
Status/control variable Variables Inputs, outputs, memory bits, DB, times, counters  Number of variables, max. Of which status variables, max. Of which control variables, max.  It  Forcing Forcing Forcing, variables Forcing, variables Number of variables, max.  Inputs, outputs  Number of variables, max.  Diagnostic buffer  Present Present Number of entries, max. Of which powerfail-proof Number of entries readable in RUN, max. Adjustable Of which powerfail-proof Number of entries readable in RUN, max. Adjustable Preset Description Preset  Service data	Test commissioning functions Status block Single step	Yes; Up to 2 simultaneously Yes
Variables Number of variables, max. Of which status variables, max. Of which control variables, max.  Of which control variables, max.  Of which control variables, max.  Of which control variables, max.  Ves Forcing Forcing Forcing, variables Number of variables, max.  Diagnostic buffer  Or present Number of entries, max.  Of which powerfail-proof Number of entries readable in RUN, max.  Or wes  Ves  Number of entries readable in RUN, max.  Or wes  Ves  Number of entries readable in RUN, max.  Or wes  Ves  Or wes  Ves  Or wes  Ves  Or wes  Or	Test commissioning functions Status block Single step Number of breakpoints	Yes; Up to 2 simultaneously Yes
Number of variables, max.  — of which status variables, max.  — of which control variables, max.  14  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.  10  Diagnostic buffer  • present  • Number of entries, max.  — adjustable — of which powerfail-proof  • Number of entries readable in RUN, max.  — adjustable — adjustable — preset  • Preset  • Service data	Test commissioning functions Status block Single step Number of breakpoints Status/control	Yes; Up to 2 simultaneously Yes 4
- of which status variables, max of which control variables, max.  14  Forcing  Forcing  Forcing, variables Number of variables, max.  10  Diagnostic buffer  present  Number of entries, max.  - adjustable - of which powerfail-proof Number of entries readable in RUN, max.  - adjustable - preset  Preset  Service data	Test commissioning functions Status block Single step Number of breakpoints Status/control  • Status/control variable	Yes; Up to 2 simultaneously Yes 4 Yes
- of which control variables, max.  Forcing  Forcing  Forcing, variables  Number of variables, max.  Diagnostic buffer  present  Number of entries, max.  Number of entries, max.  - adjustable  - of which powerfail-proof  Number of entries readable in RUN, max.  - adjustable  - preset  Service data	Test commissioning functions Status block Single step Number of breakpoints Status/control  • Status/control variable • Variables	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters
Forcing  Forcing Forcing, variables Forcing, variables Inputs, outputs Inputs, outputs, outputs Inputs, outputs, outputs Inputs, outputs, outputs Inputs, outputs, outputs Inp	Test commissioning functions  Status block  Single step  Number of breakpoints  Status/control  • Status/control variable  • Variables  • Number of variables, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30
Forcing Forcing, variables Forcing, variables Number of variables, max.  Diagnostic buffer  present Present Number of entries, max.  - adjustable - of which powerfail-proof Number of entries readable in RUN, max.  - adjustable - preset  Service data  Yes  10  Yes  10  100  Service data	Test commissioning functions Status block Single step Number of breakpoints Status/control  • Status/control variable • Variables • Number of variables, max. — of which status variables, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30
<ul> <li>Forcing, variables</li> <li>Number of variables, max.</li> <li>Diagnostic buffer</li> <li>present</li> <li>Number of entries, max.</li> <li>adjustable</li> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>No</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>Yes</li> <li>preset</li> <li>Service data</li> </ul>	Test commissioning functions Status block Single step Number of breakpoints Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30
<ul> <li>Number of variables, max.</li> <li>Diagnostic buffer</li> <li>present</li> <li>Number of entries, max.</li> <li>Adjustable</li> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>yes</li> <li>preset</li> <li>Service data</li> </ul>	Test commissioning functions  Status block  Single step  Number of breakpoints  Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14
Diagnostic buffer	Test commissioning functions  Status block Single step Number of breakpoints Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes
<ul> <li>present</li> <li>Number of entries, max.</li> <li>adjustable</li> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>preset</li> <li>Service data</li> </ul>	Test commissioning functions  Status block Single step  Number of breakpoints  Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs
<ul> <li>Number of entries, max.</li> <li>adjustable</li> <li>of which powerfail-proof</li> <li>Number of entries readable in RUN, max.</li> <li>adjustable</li> <li>preset</li> <li>preset</li> <li>Service data</li> </ul>	Test commissioning functions Status block Single step Number of breakpoints Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs
<ul> <li>— adjustable</li> <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> </ul> No 100 10	Test commissioning functions Status block Single step Number of breakpoints Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs
<ul> <li>— of which powerfail-proof</li> <li>● Number of entries readable in RUN, max.</li> <li>— adjustable</li> <li>— preset</li> <li>Yes</li> <li>— preset</li> <li>Service data</li> </ul>	Test commissioning functions  Status block  Single step  Number of breakpoints  Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.  Diagnostic buffer	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10
<ul> <li>Number of entries readable in RUN, max.</li> <li>— adjustable</li> <li>— preset</li> <li>Service data</li> </ul>	Test commissioning functions  Status block Single step Number of breakpoints Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.  Diagnostic buffer  • present	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes
<ul> <li>— adjustable</li> <li>— preset</li> <li>Service data</li> </ul> Yes 10	Test commissioning functions  Status block Single step Number of breakpoints Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.  Diagnostic buffer  • present  • Number of entries, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500
— preset 10 Service data	Test commissioning functions  Status block Single step  Number of breakpoints  Status/control  Status/control variable  Variables  Number of variables, max.  of which status variables, max.  of which control variables, max.  Forcing  Forcing  Forcing  Forcing, variables  Number of variables, max.  Diagnostic buffer  present  Number of entries, max.  adjustable	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500 No
Service data	Test commissioning functions  Status block  Single step  Number of breakpoints  Status/control  • Status/control variable  • Variables  • Number of variables, max.  — of which status variables, max.  — of which control variables, max.  Forcing  • Forcing  • Forcing, variables  • Number of variables, max.  Diagnostic buffer  • present  • Number of entries, max.  — adjustable  — of which powerfail-proof	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500 No 100
	Test commissioning functions  Status block Single step Number of breakpoints Status/control  Status/control variable  Variables  Number of variables, max.  of which status variables, max.  of which control variables, max.  Forcing  Forcing  Forcing  Forcing, variables  Number of variables, max.  Diagnostic buffer  present  Number of entries, max.  adjustable  of which powerfail-proof  Number of entries readable in RUN, max.	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500 No 100 499
• can be read out	Test commissioning functions  Status block Single step Number of breakpoints Status/control  Status/control variable  Variables  Number of variables, max.  of which status variables, max.  of which control variables, max.  Forcing  Forcing  Forcing, variables  Number of variables, max.  Diagnostic buffer  present  Number of entries, max.  adjustable  of which powerfail-proof  Number of entries readable in RUN, max.  adjustable	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500 No 100 499 Yes
	Test commissioning functions  Status block Single step Number of breakpoints Status/control  Status/control variable  Variables  Number of variables, max.  of which status variables, max.  of which control variables, max.  Forcing  Forcing  Forcing, variables  Number of variables, max.  Diagnostic buffer  present  Number of entries, max.  adjustable  of which powerfail-proof  Number of entries readable in RUN, max.  adjustable  preset	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500 No 100 499 Yes
- 50.1 25 1500 500	Test commissioning functions  Status block Single step Number of breakpoints Status/control  Status/control variable  Variables  Number of variables, max.  of which status variables, max.  of which control variables, max.  Forcing  Forcing  Forcing, variables  Number of variables, max.  Diagnostic buffer  present  Number of entries, max.  adjustable  of which powerfail-proof  Number of entries readable in RUN, max.  adjustable	Yes; Up to 2 simultaneously Yes 4  Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14  Yes Inputs, outputs 10  Yes 500 No 100 499 Yes

Ambient conditions	
Ambient temperature during operation	
• min.	0 °C
• max.	60 °C
configuration / header	
Configuration software	
• STEP 7	Yes; V5.5 or higher
configuration / programming / header	
<ul> <li>Command set</li> </ul>	see instruction list
Nesting levels	8
<ul> <li>System functions (SFC)</li> </ul>	see instruction list
<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.	340 g

last modified:

9/6/2023