Data sheet



*** SPARE PART*** SIMATIC S7-300, CPU 317-2DP, CENTRAL PROCESSING UNIT WITH 512 KBYTE WORKING MEMORY, 1. INTERFACE MPI/DP 12MBIT/S, 2. INTERFACE DP-MASTER/SLAVE, MICRO MEMORY CARD NECESSARY

General information	
Hardware product version	01
Firmware version	V2.6
Engineering with	
Programming package	STEP 7 V5.2 + SP1 or higher with HW update
Supply voltage	
Rated value (DC)	
• 24 V DC	Yes
permissible range, lower limit (DC)	20.4 V
permissible range, upper limit (DC)	28.8 V
external protection for power supply lines	2 A min.
(recommendation)	
Input current	
Current consumption (rated value)	850 mA
Current consumption (in no-load operation), typ.	100 mA
Inrush current, typ.	2.5 A
l²t	1 A ² ·s
Power loss	

Power loss, typ.	4 W
Memory	
Work memory	
• integrated	512 kbyte
• expandable	No
 Size of retentive memory for retentive data blocks 	256 kbyte
Load memory	
● Plug-in (MMC)	Yes
Plug-in (MMC), max.	8 Mbyte
 Data management on MMC (after last programming), min. 	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.	0.2 μs
for fixed point arithmetic, typ.	0.2 μs
for floating point arithmetic, typ.	1 μs
CPU-blocks	
Number of blocks (total)	2 048; (DBs, FCs, FBs OBs, SDBs); the maximum number of loadable blocks can be reduced by the MMC being used.
DB	
Number, max.	2 047; Number band: 1 to 2047
• Size, max.	64 kbyte
FB	
Number, max.	2 048; Number range: 0 to 2047
• Size, max.	64 kbyte
FC	
Number, max.	2 048; Number range: 0 to 2047
• Size, max.	64 kbyte
ОВ	
• Size, max.	64 kbyte
 Number of free cycle OBs 	1; OB 1
 Number of time alarm OBs 	1; OB 10
 Number of delay alarm OBs 	2; OB 20, 21
 Number of cyclic interrupt OBs 	4; OB 32, 33, 34, 35
 Number of process alarm OBs 	1; OB 40
 Number of DPV1 alarm OBs 	3; OB 55, 56, 57
 Number of isochronous mode OBs 	1; OB 61

 Number of startup OBs 	1; OB 100
 Number of asynchronous error OBs 	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

Counters, timers and their retentivity	
S7 counter	
Number	512
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	Z 0 to Z 7
Counting range	
— can be set	Yes
— lower limit	0
— upper limit	999
IEC counter	
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	
Number	512
Retentivity	
— adjustable	Yes
— lower limit	0
— upper limit	511
— preset	No retentivity
Time range	
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	
• present	Yes
• Type	SFB
• Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	

Data areas and their retentivity	
retentive data area in total	All, max. 256 KB
Flag	
Number, max.	4 096 byte
 Retentivity available 	Yes; From MB 0 to MB 4095

Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
Number, max.	2 047; Number band: 1 to 2047
• Size, max.	64 kbyte
Retentivity adjustable	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
• per priority class, max.	1 024 byte
Address area	
I/O address area	
● Inputs	8 192 byte
Outputs	8 192 byte
of which distributed	
— Inputs	8 192 byte
— Outputs	8 192 byte
Process image	
• Inputs	2 048 byte
Outputs	2 048 byte
● Inputs, adjustable	2 048 byte
 Outputs, adjustable 	2 048 byte
Inputs, default	256 byte
 Outputs, default 	256 byte
Subprocess images	
 Number of subprocess images, max. 	1
Digital channels	
● Inputs	65 536
— of which central	1 024
Outputs	65 536
— of which central	1 024
Analog channels	
• Inputs	4 096
— of which central	256
Outputs	4 096
— of which central	256
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
• integrated	2
• via CP	4
Number of operable FMs and CPs (recommended)	

• FM	8
	8
• CP, PtP	10
• CP, LAN Rack	10
	4
• Racks, max.	
Modules per rack, max.	8
Time of day	
Clock	
Hardware clock (real-time)	Yes
 retentive and synchronizable 	Yes
Backup time	6 wk; At 40 °C ambient temperature
Deviation per day, max.	10 s
 Behavior of the clock following POWER-ON 	Clock continues running after POWER OFF
Behavior of the clock following expiry of backup	Clock continues to run with the time at which the power failure
period	occurred
Operating hours counter	
• Number	4
Number/Number range	0 to 3
Range of values	0 to 2^31 hours (when using SFC 101)
Granularity	1 hour
• retentive	Yes; Must be restarted at each restart
Clock synchronization	
• 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	No
Digital inputs integrated channels (DI)	0
integrated channels (DI)	O
Digital outputs	
integrated channels (DO)	0
Analog inputs	
integrated channels (AI)	0
Analog outputs	0
integrated channels (AO)	0
Interfaces	
Number of industrial Ethernet interfaces	0

Number of RS 422 interfaces 0	Number of RS 485 interfaces	2; Combined MPI / PROFIBUS DP and PROFIBUS DP
Interface type Physics RS 485 RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Punctionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No MPI • Number of connections 32 • Transmission rate, max. 12 Mbit/s Services - PG/OP communication - S7 communication - S7 communication, as server • Transmission rate, max. 12 Mbit/s Services - PG/OP communication - S7 c	Number of RS 422 interfaces	0
Interface type Physics RS 485 RS 485 Isolated Power supply to interface (15 to 30 V DC), max. Punctionality • MPI • PROFIBUS DP master • PROFIBUS DP slave • Point-to-point connection No MPI • Number of connections 32 • Transmission rate, max. 12 Mbit/s Services - PG/OP communication - S7 communication - S7 communication, as server • Transmission rate, max. 12 Mbit/s Services - PG/OP communication - S7 c	1. Interface	
Solated		Integrated RS 485 interface
Power supply to interface (15 to 30 V DC), max. 200 mA Functionality Yes ● PROFIBUS DP master Yes ● PROFIBUS DP slave Yes ● PROFIBUS DP slave Yes ● Proint-to-point connection No Mumber of connections ■ Number of connections 32 ● Transmission rate, max. 12 Mbit/s Services — PG/OP communication Yes — Sommunication Yes — S7 communication Yes — S7 communication, as client No — S7 communication, as server Yes DP master 12 Mbit/s • Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services — PG/OP communication Yes — PG/OP communication Yes — Routing Yes — Global data communication No — S7 basic communication Yes; I blocks only — S7 communication, as client No — S7 communication, as server Yes <td>Physics</td> <td>RS 485</td>	Physics	RS 485
Functionality MPI PROFIBUS DP master PROFIBUS DP slave Point-to-point connection No MPI Number of connections 32 Transmission rate, max. 12 Mbit/s Services PG//CP communication Routing Global data communication PS7 communication PS7 communication, as client PS7 communication, as server PF//CP communication PS7 communication PS7 communication PS7 communication PS8 PS9 PS9 PMaster PRI/CP communication PS9 PS9 PS9 PS9 PS9 PS9 PS9 PS9	Isolated	Yes
	Power supply to interface (15 to 30 V DC), max.	200 mA
PROFIBUS DP master PROFIBUS DP slave Point-to-point connection No MPI Number of connections Private and provided the provided of the provid	Functionality	
PROFIBUS DP slave Point-to-point connection No MPI Number of connections Transmission rate, max. PG/OP communication PG dibal data communication PS communication, as server PS rommunication, as server PG/OP communication PS rommunication PS rommunication, as lient PS rommunication PS romm	● MPI	Yes
Point-to-point connection No MPI Number of connections No Transmission rate, max. 21 Mbit/s Services PG/OP communication Yes Global data communication Yes S7 communication Yes S7 communication Yes Yes PTransmission rate, max. 12 Mbit/s Yes PS Syncies PS Wes Wes PS Wes PS Wes Wes PS Wes Wes PS Wes Wes Wes PS Wes Wes Wes PS Wes Wes Wes Wes PS Wes Wes Wes Wes PS Wes	 PROFIBUS DP master 	Yes
MPI Number of connections Transmission rate, max. 22 Mbit/s Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as server PG/OP communication, as server Pes DP master Transmission rate, max. Number of DP slaves, max. 124 Mbit/s Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 basic communication — Routing — Global data communication — S7 basic communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — Equidistance — Yes — lsochronous mode — SYNC/FREZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max.	 PROFIBUS DP slave 	Yes
 Number of connections Transmission rate, max. 12 Mbit/s Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as server — S7 communication, as server → S7 communication, as server → Transmission rate, max. • Number of DP slaves, max. 12 Mbit/s • Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as client — S7 communication, as server — Equidistance — Lequidistance — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. 	 Point-to-point connection 	No
● Transmission rate, max. 12 Mbit/s Services - PG/OP communication Yes - Routing Yes - Global data communication Yes - S7 basic communication Yes - S7 communication Yes - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes DP master ● Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services - PG/OP communication Yes - Routing Yes - Global data communication No - S7 basic communication Yes; I blocks only - S7 communication, as client No - S7 communication, as client No - S7 communication, as server Yes - S7 communication, as server Yes - Equidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves Yes - Number of DP slaves that can be simultaneously activated/deactivated, max.	MPI	
Services - PG/OP communication Yes - Routing Yes - Global data communication Yes - S7 basic communication Yes - S7 communication Yes - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes DP master • Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services - PG/OP communication Yes - Routing Yes - Routing Yes - Global data communication No - S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication, as client No - S7 communication, as client No - S7 communication, as server Yes - Equidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves - Number of DP slaves that can be simultaneously activated/deactivated, max.	Number of connections	32
PG/OP communication Yes Routing Yes Global data communication Yes S7 basic communication Yes S7 communication Yes S7 communication Yes S7 communication, as client S7 communication, as server Pes P master ● Transmission rate, max. 12 Mbit/s Number of DP slaves, max. 124 Services PG/OP communication Yes Routing Global data communication No S7 basic communication Yes; I blocks only S7 communication Yes S7 communication Yes S7 communication Yes S7 communication Yes S7 communication S7 communication Yes S7 communication Yes S7 communication, as client No S7 communication, as server PEquidistance Yes I sochronous mode No SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max.	 Transmission rate, max. 	12 Mbit/s
Routing Global data communication S7 basic communication Yes S7 communication Yes S7 communication Yes S7 communication, as client S7 communication, as server Yes P master 12 Mbit/s Number of DP slaves, max. 124 Services PG/OP communication Routing Global data communication No S7 basic communication Yes; I blocks only S7 communication Yes S8 Communication Yes S9 Communication Yes	Services	
Global data communication S7 basic communication Yes S7 communication Yes S7 communication, as client No S7 communication, as server Yes DP master • Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services - PG/OP communication Routing Global data communication S7 basic communication S7 basic communication Yes; I blocks only S7 communication Yes S7 communication Yes S7 communication S8 cerver S9 cervices - S7 communication, as client No S7 communication, as server Yes S8 cervices - Isochronous mode No SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max.	— PG/OP communication	Yes
— S7 basic communication Yes — S7 communication Yes — S7 communication, as client No — S7 communication, as server Yes DP master • Transmission rate, max. 12 Mbit/s • Number of DP slaves, max. 124 Services — PG/OP communication Yes — Routing Yes — Global data communication No — S7 basic communication Yes; I blocks only — S7 communication Yes — S7 communication Yes — S7 communication, as client No — S7 communication, as server Yes — Equidistance Yes — Isochronous mode No — SYNC/FREEZE Yes — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max.	— Routing	Yes
— S7 communication — S7 communication, as client — No — S7 communication, as server — Yes DP master • Transmission rate, max. — 12 Mbit/s • Number of DP slaves, max. — 124 Services — PG/OP communication — Yes — Routing — Yes — Global data communication — No — S7 basic communication — Yes; I blocks only — S7 communication — Yes — S7 communication — Yes — S7 communication — Yes — S7 communication, as client — No — S7 communication, as server — Equidistance — Yes — Equidistance — Yes — Isochronous mode — No — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max.	 Global data communication 	Yes
— S7 communication, as client — S7 communication, as server Pmaster • Transmission rate, max. • Number of DP slaves, max. 12 Mbit/s • Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 basic communication — S7 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.	 S7 basic communication 	Yes
— S7 communication, as server P master ● Transmission rate, max. ● Number of DP slaves, max. 12 Mbit/s ● Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 basic communication — S7 communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — 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.	— S7 communication	Yes
P master ● Transmission rate, max. • Number of DP slaves, max. 124 Services - PG/OP communication - Routing - Global data communication - S7 basic communication - S7 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.	 S7 communication, as client 	No
 Transmission rate, max. Number of DP slaves, max. 124 Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 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. 	 S7 communication, as server 	Yes
● Number of DP slaves, max. Services - PG/OP communication Yes - Routing Yes - Global data communication No - S7 basic communication Yes; I blocks only - S7 communication Yes - S7 communication Yes - S7 communication, as client No - S7 communication, as server Yes - Equidistance Yes - Isochronous mode No - SYNC/FREEZE Yes - Activation/deactivation of DP slaves Yes - Number of DP slaves that can be simultaneously activated/deactivated, max.	DP master	
Services	Transmission rate, max.	12 Mbit/s
 — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server — 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. 	 Number of DP slaves, max. 	124
 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. 	Services	
 Global data communication S7 basic communication Yes; I blocks only S7 communication Yes 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. 	— PG/OP communication	Yes
 S7 basic communication S7 communication S7 communication, as client S7 communication, as server 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. 	— Routing	Yes
 — 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. 	 Global data communication 	No
 S7 communication, as client S7 communication, as server Equidistance Isochronous mode SYNC/FREEZE Activation/deactivation of DP slaves No Yes Activation/deactivation of DP slaves No Yes Activation/deactivation of DP slaves Simultaneously activated/deactivated, max. 	 — S7 basic communication 	Yes; I blocks only
 — 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. 	— S7 communication	Yes
 Equidistance Isochronous mode No SYNC/FREEZE Activation/deactivation of DP slaves Number of DP slaves that can be simultaneously activated/deactivated, max. 	 — S7 communication, as client 	No
 — Isochronous mode — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. 	 S7 communication, as server 	Yes
 — SYNC/FREEZE — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. 	— Equidistance	Yes
 — Activation/deactivation of DP slaves — Number of DP slaves that can be simultaneously activated/deactivated, max. 	— Isochronous mode	No
— Number of DP slaves that can be simultaneously activated/deactivated, max.	— SYNC/FREEZE	Yes
simultaneously activated/deactivated, max.	 Activation/deactivation of DP slaves 	Yes
		4
		Yes

Address area	
— Inputs, max.	8 096 byte
— Outputs, max.	8 096 byte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
Transmission rate, max.	12 Mbit/s
automatic baud rate search	Yes; only with passive interface
Address area, max.	32
User data per address area, max.	32 byte
Services	
— PG/OP communication	Yes
— Routing	Yes; Only with active interface
Global data communication	No
— S7 basic communication	No
— S7 communication	Yes
 S7 communication, as client 	No
— S7 communication, as server	Yes
Direct data exchange (slave-to-slave)	Yes
communication)	
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
2. Interface	Integrated DC 495 interface
Interface type Physics	Integrated RS 485 interface RS 485
Isolated	Yes
Power supply to interface (15 to 30 V DC), max.	200 mA
Functionality	200 IIIA
• MPI	No
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes
Point-to-point connection	No
DP master	
Number of connections, max.	32
	12 Mbit/s
Transmission rate, max. Number of DD players may	
Number of DP slaves, max.	124
Services	Ven
— PG/OP communication	Yes

— Routing	Yes
 Global data communication 	No
— S7 basic communication	Yes; I blocks only
— S7 communication	Yes
 S7 communication, as client 	No
 S7 communication, as server 	Yes
— Equidistance	Yes
— Isochronous mode	Yes; OB 61
— SYNC/FREEZE	Yes
 Activation/deactivation of DP slaves 	Yes
— DPV1	Yes
Address area	
— Inputs, max.	8 096 byte
— Outputs, max.	8 096 byte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
DP slave	
Number of connections	32
• GSD file	The latest GSD file is available at: http://www.siemens.com/profibus-gsd
 Transmission rate, max. 	12 Mbit/s
automatic baud rate search	Yes; only with passive interface
 Address area, max. 	32
 User data per address area, max. 	32 byte
Services	
— PG/OP communication	Yes
— Routing	Yes; with interface active
 Global data communication 	No
— S7 basic communication	No
— S7 communication	Yes
 S7 communication, as client 	No
 S7 communication, as server 	Yes
 Direct data exchange (slave-to-slave communication) 	Yes
— DPV1	No
Transfer memory	
— Inputs	244 byte
— Outputs	244 byte
Communication functions	
PG/OP communication	Yes

Data record routing	No
Global data communication	
• supported	Yes
 Number of GD loops, max. 	8
 Number of GD packets, max. 	8
 Number of GD packets, transmitter, max. 	8
 Number of GD packets, receiver, max. 	8
 Size of GD packets, max. 	22 byte
 Size of GD packet (of which consistent), max. 	22 byte
S7 basic communication	
• supported	Yes
 User data per job, max. 	76 byte
• User data per job (of which consistent), max.	76 byte; 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET as server)
S7 communication	
• supported	Yes
• as server	Yes
• as client	Yes; Via CP and loadable FB
User data per job, max.	180 byte; With PUT/GET
 User data per job (of which consistent), max. 	160 byte; as server
S5 compatible communication	
• supported	Yes; via CP and loadable FC
Number of connections	
• overall	32
 usable for PG communication 	31
 reserved for PG communication 	1
 adjustable for PG communication, min. 	1
 adjustable for PG communication, max. 	31
 usable for OP communication 	31
 reserved for OP communication 	1
— adjustable for OP communication, min.	1
— adjustable for OP communication, max.	31
 usable for S7 basic communication 	30
— reserved for S7 basic communication	0
 adjustable for S7 basic communication, min. 	0
 adjustable for S7 basic communication, max. 	30
usable for routing	8

S7 message functions

Number of login stations for message functions, max.

32; Depending on the configured connections for PG/OP and S7 basic communication

	W.
Process diagnostic messages	Yes
simultaneously active Alarm-S blocks, max.	60
Test commissioning functions	
Status block	Yes
Single step	Yes
Number of breakpoints	2
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
 Forcing, variables 	Inputs, outputs
 Number of variables, max. 	10
Diagnostic buffer	
• present	Yes
 Number of entries, max. 	100
— adjustable	No
— of which powerfail-proof	100
Configuration	
Configuration software	
• STEP 7	Yes; V5.2 SP1 or higher with HW update
Programming	
Command set	see instruction list
Nesting levels	8
System functions (SFC)	see instruction list
System function blocks (SFB)	see instruction list
Programming language	
— LAD	Yes
— FBD	Yes
— STL	Yes
— SCL	Yes
— CFC	Yes
— GRAPH	Yes
— HiGraph®	Yes
Know-how protection	
User program protection/password protection	Yes
	Yes
User program protection/password protection Dimensions Width	Yes 80 mm

Height	125 mm	
Depth	130 mm	
Weights		
Weight, approx.	460 g	
last modified:	03/23/2017	