SIEMENS

Data sheet

6ES7314-6CG03-0AB0



Spare part SIMATIC S7-300, CPU 314C-2 DP Compact CPU with MPI, 24 DI/16 DO, 4 AI, 2 AO, 1 Pt100, 4 high-speed counters (60 kHz), integrated DP interface, Integr. power supply 24 V DC, Work memory 96 KB, Front connector (2x 40-pole) and Micro Memory Card required

General information	
HW functional status	01
Firmware version	V2.6
Engineering with	
Programming package	STEP 7 V5.3 SP2 or higher with HW update
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)	Miniature circuit breaker, type C; min. 2 A; miniature circuit breaker type B, min. 4 A
Load voltage L+	
Rated value (DC)	24 V
 permissible range, lower limit (DC) 	20.4 V
 permissible range, upper limit (DC) 	28.8 V
Digital inputs	
— Rated value (DC)	24 V
- Reverse polarity protection	Yes
Digital outputs	
— Rated value (DC)	24 V
- Reverse polarity protection	No
Analog outputs	
— Rated value (DC)	24 V
 Reverse polarity protection 	Yes
Input current	
Current consumption (rated value)	1 000 mA
Current consumption (in no-load operation), typ.	150 mA
Inrush current, typ.	11 A
l²t	0.7 A ² ·s
Digital inputs	
 from load voltage L+ (without load), max. 	70 mA
Digital outputs	
 from load voltage L+, max. 	100 mA
Power loss	
Power loss, typ.	14 W
Memory	
Work memory	
integrated	96 kbyte
• expandable	No
Load memory	

Plug-in (MMC)	Yes
• Plug-in (MMC), max.	8 Mbyte
 Data management on MMC (after last programming), min. 	10 a
Backup	
• present	Yes; Guaranteed by MMC (maintenance-free)
without battery	Yes; Program and data
CPU processing times	res, riogram and data
	0.1.02
for bit operations, typ.	0.1 µs
for word operations, typ.	0.2 µs
for fixed point arithmetic, typ.	2 µs
for floating point arithmetic, typ. CPU-blocks	3 µs
	4.024. (DBa, ECa, EBa), the maximum number of leadable blacks can be
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.	511; Number range: 1 to 511
• Size, max.	16 kbyte
FB	
• Number, max.	1 024; Number range: 0 to 2047
• Size, max.	16 kbyte
FC	
Number, max.	1 024; Number range: 0 to 2047
• Size, max.	16 kbyte
OB	
• Size, max.	16 kbyte
Number of free cycle OBs	1; OB 1
Number of time alarm OBs	1; OB 10
Number of delay alarm OBs	1; OB 20
Number of cyclic interrupt OBs	1; OB 35
Number of process alarm OBs	1; OB 40
Number of DPV1 alarm OBs	3; OB 55, 56, 57
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	2,00 121,122
per priority class	8
additional within an error OB	4
Counters, timers and their retentivity	*
S7 counter • Number	250
	256
Retentivity	Vaa
— adjustable — lower limit	Yes 0
— lower limit — upper limit	255
	8
— preset	U
Counting range	0
— lower limit	0
— upper limit	999
IEC counter	Van
• present	Yes
• Type	SFB
Number	Unlimited (limited only by RAM capacity)
S7 times	250
Number	256
Retentivity	N
— adjustable	Yes
— lower limit	0
— upper limit	255
— preset	No retentivity
Time range	

lowor limit	10 mg
— lower limit	10 ms
— upper limit	9 990 s
IEC timer	
• present	Yes
• Туре	SFB
Number	Unlimited (limited only by RAM capacity)
Data areas and their retentivity	
Retentive data area (incl. timers, counters, flags), max.	64 kbyte
Flag	
• Size, max.	256 byte
Retentivity available	Yes; MB 0 to MB 255
Retentivity preset	MB 0 to MB 15
Number of clock memories	8; 1 memory byte
Data blocks	
 Retentivity adjustable 	Yes; via non-retain property on DB
Retentivity preset	Yes
Local data	
 per priority class, max. 	510 byte
Address area	
I/O address area	
Inputs	1 kbyte
Outputs	1 kbyte
of which distributed	
— Inputs	979 byte
— Outputs	986 byte
Process image	
Inputs	128 byte
Outputs	128 byte
Default addresses of the integrated channels	
— Digital inputs	124.0 to 126.7
— Digital outputs	124.0 to 125.7
— Analog inputs	752 to 761
— Analog outputs	752 to 755
Digital channels	
Inputs	7 856
— of which central	1 016
Outputs	7 904
— of which central	1 008
Analog channels	
Inputs	494
— of which central	253
Outputs	495
— of which central	250
Hardware configuration	
Number of expansion units, max.	3
Number of DP masters	
integrated	1
• via CP	4
Number of operable FMs and CPs (recommended)	
• FM	8
• CP, PtP	8
• CP, LAN	10
Rack	
Racks, max.	4
Modules per rack, max.	* 8; In rack 3 max. 7
Time of day	
Clock	Voc
Hardware clock (real-time)	Yes
retentive and synchronizable	Yes
Backup time	6 wk; At 40 °C ambient temperature

• Deviation per day, max.	10 s
• Deviation per day, max. Operating hours counter	
Number	1
Number/Number range	0
Range of values	0 to 2^31 hours (when using SFC 101)
• Granularity	1 h
retentive	Yes; Must be restarted at each restart
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
Digital inputs	
Number of digital inputs	24
 of which inputs usable for technological functions 	16
integrated channels (DI)	24
Input characteristic curve in accordance with IEC 61131, type 1	Yes
Number of simultaneously controllable inputs	
horizontal installation	
— up to 40 °C, max.	24
— up to 60 °C, max.	12
vertical installation	
— up to 40 °C, max.	12
Input voltage	
Rated value (DC)	24 V
• for signal "0"	-3 to +5V
• for signal "1"	+15 to +30 V
Input current	
● for signal "1", typ.	9 mA
Input delay (for rated value of input voltage)	
for standard inputs	Ver: 0.4.1.0.2.1.2.1.45 me
— parameterizable — Rated value	Yes; 0.1 / 0.3 / 3 / 15 ms
	3 ms
for technological functions — at "0" to "1", max.	8 µs
Cable length	o µs
shielded, max.	1 000 m; 50 m for technological functions
• unshielded, max.	600 m; for technological functions: No
for technological functions	
— shielded, max.	50 m
— unshielded, max.	not allowed
Digital outputs	
Number of digital outputs	16
of which high-speed outputs	4
integrated channels (DO)	16
Short-circuit protection	Yes; Clocked electronically
Response threshold, typ.	1 A
Limitation of inductive shutdown voltage to	L+ (-48 V)
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	5 W
Load resistance range	
lower limit	48 Ω
• upper limit	4 kΩ
Output voltage	
• for signal "1", min.	L+ (-0.8 V)
Output current	
• for signal "1" rated value	500 mA
 for signal "1" permissible range, min. 	5 mA

a for signal "1" normissible range, may	0.6 A
for signal "1" permissible range, max.	5 mA
for signal "1" minimum load current	
for signal "0" residual current, max.	0.5 mA
Parallel switching of two outputs	No
for uprating	Yes
for redundant control of a load Switching frequency	1 es
	100 Hz
with resistive load, max.	
with inductive load, max.	0.5 Hz
 on lamp load, max. of the pulse outputs, with resistive load, max. 	100 Hz 2.5 kHz
Total current of the outputs (per group)	2.5 KHZ
horizontal installation	
— up to 40 $^{\circ}$ C, max.	3 A
— up to 60 °C, max.	2 A
vertical installation	20
— up to 40 °C, max.	2 A
Cable length	2 A
shielded, max.	1 000 m
 shielded, max. unshielded, max. 	600 m
Analog inputs	
Number of analog inputs	
For voltage/current measurement	4
For resistance/resistance thermometer measurement	1
integrated channels (AI)	4+1
permissible input voltage for current input (destruction limit), max.	5 V; Permanent
permissible input voltage for voltage input (destruction limit), max.	30 V; Permanent
permissible input current for voltage input (destruction limit), max.	0.5 mA; Permanent
permissible input current for current input (destruction limit), max.	50 mA; Permanent
Electrical input frequency, max.	400 Hz
No-load voltage for resistance-type transmitter, typ.	2.5 V
Constant measurement current for resistance-type transmitter, typ.	1.8 to 3.3 mA
Technical unit for temperature measurement adjustable	Yes; Degrees Celsius / degrees Fahrenheit / Kelvin
Input ranges	
• Current	Yes
Resistance thermometer	Yes; Pt 100 / 10 MΩ
Resistance	Yes
Input ranges (rated values), voltages	
• 0 to +10 V	Yes
— Input resistance (0 to 10 V)	100 kΩ
Input ranges (rated values), currents	
• 0 to 20 mA	Yes
— Input resistance (0 to 20 mA)	100 Ω
• -20 mA to +20 mA	Yes
- Input resistance (-20 mA to +20 mA)	100 Ω
• 4 mA to 20 mA	Yes
— Input resistance (4 mA to 20 mA)	100 Ω
Input ranges (rated values), resistance thermometer	
• Pt 100	Yes
— Input resistance (Pt 100)	10 ΜΩ
Input ranges (rated values), resistors	
• 0 to 600 ohms	Yes
— Input resistance (0 to 600 ohms)	10 ΜΩ
Thermocouple (TC)	
Temperature compensation	
— parameterizable	No
Characteristic linearization	

parameterizable	Yes; by software
— for resistance thermometer	Pt 100
Cable length	11100
shielded, max.	100 m
Analog outputs	
Number of analog outputs	2
integrated channels (AO)	2
	Yes
Voltage output, short-circuit protection	55 mA
Voltage output, short-circuit current, max.	
Current output, no-load voltage, max.	17 V
Output ranges, voltage	N
• 0 to 10 V	Yes
• -10 V to +10 V	Yes
Output ranges, current	
• 0 to 20 mA	Yes
• -20 mA to +20 mA	Yes
• 4 mA to 20 mA	Yes
Connection of actuators	
 for voltage output two-wire connection 	Yes; Without compensation of the line resistances
 for voltage output four-wire connection 	No
 for current output two-wire connection 	Yes
Load impedance (in rated range of output)	
 with voltage outputs, min. 	1 kΩ
 with voltage outputs, capacitive load, max. 	0.1 µF
 with current outputs, max. 	300 Ω
 with current outputs, inductive load, max. 	0.1 mH
Destruction limits against externally applied voltages and currents	
 Voltages at the outputs towards MANA 	16 V; Permanent
• Current, max.	50 mA; Permanent
Cable length	
shielded, max.	200 m
• Shicidea, max.	200 111
Analog value generation for the inputs	200 111
Analog value generation for the inputs	
Analog value generation for the inputs Measurement principle	Actual value encryption (successive approximation)
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel	
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.	Actual value encryption (successive approximation) 12 bit
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.	Actual value encryption (successive approximation) 12 bit
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released)	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms
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Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max.	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel)	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit 1 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit 12 bit 1 ms 0.6 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for capacitive load	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit 12 bit 1 ms 0.6 ms 1 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit 12 bit 1 ms 0.6 ms 1 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for inductive load • for inductive load	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit 12 bit 1 ms 0.6 ms 1 ms
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for inductive load	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 1 ms 12 bit 1 ms 0.6 ms 1 ms 0.5 ms 1 ms
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Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for voltage measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 1 ms 1 ms 0.6 ms 1 ms 0.6 ms 1 ms 0.5 ms Yes Yes; with external supply Yes
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for voltage measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 1 ms 1 ms 0.6 ms 1 ms 0.6 ms 1 ms 0.5 ms Yes; with external supply Yes Yes; with external supply Yes Yes; Without compensation of the line resistances
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for voltage measurement • for voltage measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 1 ms 1 12 bit 1 ms 0.6 ms 1 ms 0.6 ms 1 ms 0.5 ms Yes Yes; with external supply Yes Yes; with external supply Yes Yes; Without compensation of the line resistances No
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Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for outpute measurement • for current measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 1 ms 1 12 bit 1 ms 0.6 ms 1 ms 0.6 ms 1 ms 0.5 ms Yes; with external supply Yes Yes; with external supply Yes Yes; Without compensation of the line resistances No No No
Analog value generation for the inputs Measurement principle Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Integration time, parameterizable • Interference voltage suppression for interference frequency f1 in Hz • Time constant of the input filter • Basic execution time of the module (all channels released) Analog value generation for the outputs Integration and conversion time/resolution per channel • Resolution with overrange (bit including sign), max. • Conversion time (per channel) Settling time • for resistive load • for inductive load • for outpute measurement • for outpute measurement as 2-wire transducer • for current measurement as 4-wire transducer • for resistance measurement with two-wire connection • for resistance measurement with four-wire connection • for resistance measurement with four-wire connection	Actual value encryption (successive approximation) 12 bit Yes; 2,5 / 16,6 / 20 ms 400 / 60 / 50 Hz 0.38 ms 1 ms 12 bit 1 ms 0.6 ms 1 ms 0.6 ms 1 ms 0.5 ms Yes; with external supply Yes Yes; Without compensation of the line resistances No No

Temperature error (relative to input range), (+/-)	0.006 %/K
Crosstalk between the inputs, min.	60 dB
Repeat accuracy in steady state at 25 °C (relative to input range), (+/-)	0.06 %
Output ripple (relative to output range, bandwidth 0 to 50 kHz), (+/-)	0.1 %
Linearity error (relative to output range), (+/-)	0.15 %
Temperature error (relative to output range), (+/-)	0.01 %/K
Crosstalk between the outputs, min.	60 dB
Repeat accuracy in steady state at 25 $^\circ\text{C}$ (relative to output range), (+/-)	0.06 %
Operational error limit in overall temperature range	
 Voltage, relative to input range, (+/-) 	1 %
 Current, relative to input range, (+/-) 	1 %
 Resistance, relative to input range, (+/-) 	5 %
 Voltage, relative to output range, (+/-) 	1 %
 Current, relative to output range, (+/-) 	1 %
Basic error limit (operational limit at 25 °C)	
 Voltage, relative to input range, (+/-) 	0.7 %; Linearity error ±0.06 %
• Current, relative to input range, (+/-)	0.7 %; Linearity error ±0.06 %
Resistance, relative to input range, (+/-)	3 %; Linearity error ±0.2 %
 Resistance thermometer, relative to input range, (+/-) 	3 %
 Voltage, relative to output range, (+/-) 	0.7 %
Current, relative to output range, (+/-)	0.7 %
Interference voltage suppression for $f = n \times (f1 + /-1 \%)$, $f1 = interference voltage suppression for f = n \times (f1 + /-1 \%)$	
Series mode interference (peak value of interference <	30 dB
rated value of input range), min.	
 Common mode interference, min. 	40 dB
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
MPI	
Cable length, max.	50 m; without repeater
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
PROFIBUS DP slave	No
Point-to-point connection	
MPI	No
	No
Number of connections	12
Number of connectionsTransmission rate, max.	
 Number of connections Transmission rate, max. Services 	12 187.5 kbit/s
 Number of connections Transmission rate, max. Services PG/OP communication 	12 187.5 kbit/s Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing	12 187.5 kbit/s Yes Yes
Number of connections Transmission rate, max. Services PG/OP communication Routing Global data communication	12 187.5 kbit/s Yes Yes Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication	12 187.5 kbit/s Yes Yes Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication	12 187.5 kbit/s Yes Yes Yes Yes Yes
 Number of connections Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication, as client 	12 187.5 kbit/s Yes Yes Yes Yes Yes No
 Number of connections Transmission rate, max. Services PG/OP communication Routing Global data communication S7 basic communication S7 communication S7 communication, as client S7 communication, as server 	12 187.5 kbit/s Yes Yes Yes Yes Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as server 2. Interface	12 187.5 kbit/s Yes Yes Yes Yes Yes No Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication — S7 communication, as client — S7 communication, as server 2. Interface Interface type	12 187.5 kbit/s Yes Yes Yes Yes Yes No Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as server 2. Interface Interface type Isolated	12 187.5 kbit/s Yes Yes Yes Yes Yes No Yes Integrated RS 485 interface Yes
Number of connections Transmission rate, max. Services — PG/OP communication — Routing — Global data communication — S7 basic communication — S7 communication — S7 communication, as client — S7 communication, as server 2. Interface Interface type	12 187.5 kbit/s Yes Yes Yes Yes Yes No Yes

• RS 485	Yes
 Output current of the interface, max. 	200 mA
Protocols	
• MPI	No
PROFINET IO Controller	No
PROFINET CBA	No
PROFIBUS DP master	Yes
PROFIBUS DP slave	Yes
Point-to-point connection	No
PROFIBUS DP master	
Number of connections, max.	12; For PG/OP communication
Transmission rate, max.	12 Mbit/s
Number of DP slaves, max.	32
Services	
— PG/OP communication	Yes
— Routing	Yes
 — Global data communication 	No
 — S7 basic communication 	Yes; I blocks only
— S7 communication	Yes
- S7 communication, as client	No
- S7 communication, as server	Yes
— Equidistance	Yes
— Isochronous mode	No
- SYNC/FREEZE	Yes
 Activation/deactivation of DP slaves 	Yes
- Direct data exchange (slave-to-slave	Yes
communication)	
— DPV1	Yes
Address area	
— Inputs, max.	1 kbyte
— Outputs, max.	1 kbyte
User data per DP slave	
— Inputs, max.	244 byte
— Outputs, max.	244 byte
PROFIBUS DP slave	
Number of connections	12
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; 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
Protocols	
PROFIsafe	No
communication functions / header	
PG/OP communication	Yes
Global data communication	
• supported	Yes
- Supporteu	100

 Number of No body, Max. Number of Dap Ackets, Frankmer, max. Statist communication Statist communication Statist communication Number of Dap Ackets, Frankmer, max. Number of Dap Ackets, The Number of Dap Ackets,	Number of OD losses more	4
• Number of QD packs, transmiter, max. 4 • Sites of GD packs, transmiter, max. 22 byte • Sites of GD packs, transmiter, max. 22 byte • Sites of GD packs, transmiter, max. 22 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD packs, transmiter, max. 70 byte • Sites of GD Packs, transmiter, max. 70 byte • Sites of GD Packs, transmiter, max. 70 byte • stable for PG communication 11 - adystable for PG communication 11	Number of GD loops, max.	4
+ Number of QD packets, reaxiver, max.4- Size of QD packets, max.22 byte> Size of GD packets (of which consistent), max.22 byte> supportedYes- User data per job, nox.76 byte; 76 bytes (wth X_SEND or X_RCV); 64 bytes (wth X_PUT or X_GET> Size communicationYes> a clientYes- supportedYes- supportedYes- supportedYes- supportedYes- supportedYes- supportedYes- supportedYes, Van CP and loadable FB- User data per job (of which consistent), max.64 byte> Size onsistence44 byte- Size onsistence12- supported12- supported12- adjustable for PG communication1 adjustable for PG communication1 adjustable for PG communication, min.1 adjustable for PG communication, min.1	-	
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 Size of CD packet (or which consistent), max. Size of CD packet (or which consistent), max. The byte User data per (bb, max. The byte (which X_SEND or X_PCV); 64 bytes (which X_GET as server) Size or CD packet (or Which consistent), max. The byte (which X_SEND or X_PCV); 64 bytes (which X_GET as server) Size or CD and Size or Size o		
87 Desix communication vision • uber data per job (which consistent), max. 76 byte: 78 bytes (whith X_SEND or X_RCV); 64 bytes (with X_PUT or X_CET • apported Yes • apported Yes • as server Yes • as a server Yes • User data per job (which consistent), max. 100 byte; Win PUTGET • User data per job (of which consistent), max. 100 byte; Win PUTGET • supported Yes; via CP and loadable FC Number of communication 1 • adjustable for PC communication, min, 1 • adjustable for PC communication, min, 1 • adjustable for PC communication, max. 11 • adjustable for PC communication, max. 11 • adjustable for ST basic communication, max. 11 • adjustable for ST basic communication, max. 12 • adjustable for ST basic communication, max. 13 • adjustable for ST basic communication, max. 12 • adjustable for ST basic communication, max. 13 • adjustable for ST basic communication, max. 14	-	
• supported Yes • 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) • So envert Yes • as server Yes • as server Yes • User data per job (of which consistent), max. 80 bytes (with X_SEND or X_RCV); 64 bytes (with X_DET of Age and backable FB • User data per job, max. 108 bytes, With PUTGET • User data per job (of which consistent), max. 64 byte S3 compatible communication 12 • usable for PC communication 1 • adjustable for PC communication 1 • adjustable for PC communication 1 • adjustable for PC communication 1 • usable for PC communication 1 • adjustable for PC communication, min. 1 • adjustable for PC communication, max. 11 • adjustable for PC communication, max. 11 • adjustable for PC communication, max. 12 • adjustable for PC communication, max. 12 • adjustable for PC communication, max. 13 • adjustable for PC communication, max. 14 <tr< td=""><td></td><td>22 byte</td></tr<>		22 byte
• User data per jab, max. 76 byte • User data per jab (of which consistent), max. 76 byte 76 bytes (with X_SEND or X_RCV); 64 bytes (with X_PUT or X_GET • supported Yes • as server Yes • as a server Yes • as ident Yes; Via CP and loadable FB • User data per jab, max. 40 byte • User data per jab, max. 40 byte • User data per jab (of which consistent), max. 40 byte • Synompatible communication 12 • supported Yes; Via CP and loadable FC Number of connections 1 • everall 12 • adjustable for PG communication, min. 1 - adjustable for SP basic communication, min. 1		
• User data per jab (of which consistent), max. 76 bpte; 76 bpte; Wth X_SEND or X_RCV; 84 bptes (wth X_PUT or X_GET • supported Yes • supported Yes • as server Yes • as cleant Yes, Ya CP and loadable FB • User data per jab (of which consistent), max. 64 byte 55 compatible communication 100 kyte; Wth PUT/RET • User data per jab (of which consistent), max. 64 byte 55 compatible communication 11 - reserved for PG communication 1 - adjustable for PG communication, max. 1 - adjustable for PG communication 1 - adjustable for PG communication 1 - adjustable for PG communication, max. 1 - eserved for ST basic communication, max. 1 - eserved for ST basic communication, max. 2 - sustable for for basic communication, max. 40 Test commission for for folds Yes Situa block Yes </td <td></td> <td></td>		
Bas server) as server) Signommunication Yes • as server) Yes • as solver) Yes • as solver) Yes • as solver) Yes • user data per job (of which consistent), max. Ge byte • User data per job (of which consistent), max. Ge byte • Signompatible communication 100 keyte: Whith PUTGET • supported Ves, via CP and loadable FC Number of connections 1 • overall 12 • usable for PG communication, min. 1 adjustable for PC communication, max. 11 adjustable for PC communication, max. 11 adjustable for PC communication, min. 1 adjustable for PC communication, min. 1 adjustable for PC communication, min. 1 adjustable for ST basic communication, min. 0 adjustable for ST basic communication, min. 0 adjustable for ST basic communication, min. 12 - adjustable for ST basic communication, min. 13 adjustable for ST basic communication, min. 14 - adjustable for ST basic communication, min. 15 - adjustable for ST basic communication, min. 2 Statistonority Yes		
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• as clientYes; Via CP and loadable FB• User data per job (which consistent), max.40 ktyle; Win PUTGET• User data per job (which consistent), max.40 ktyle; Storopatitie communication Yes; via CP and loadable FC.• warall12• usable for FG communication11- reserved for FO communication, min.1- adjustable for FG communication, min.1- adjustable for FO communication, max.11- adjustable for FO communication, min.1- adjustable for ST basic communication, min.1- adjustable for ST basic communication, min.0- adjustable for ST basic communication, min.1- adjustable for ST basic communication, min.0- adjustable for ST basic communication, min.1- adjustable for ST basic communication, min.1	supported	Yes
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45 compatible communication 64 byte 55 compatible communication Yes; via CP and loadable FC Number of connections 12 • overall 12 • usable for PG communication 1 - adjustable for PG communication, min. 1 - adjustable for PG communication, max. 11 - adjustable for SP communication, max. 11 - adjustable for SP communication, max. 11 - adjustable for SP basic communication, max. 11 - adjustable for SP basic communication, min. 0 - adjustable for SP basic communication, max. 12 Number of login stations for message functions, max. 2 SP message functions 4: max. SP message functions 4: max. Statis bork Yes Single step Yes Single step Yes Number of variables, max. 30 <td>• as client</td> <td>Yes; Via CP and loadable FB</td>	• as client	Yes; Via CP and loadable FB
45 compatible communication 64 byte 55 compatible communication Yes; via CP and loadable FC Number of connections 12 • overall 12 • usable for PG communication 1 - adjustable for PG communication, min. 1 - adjustable for PG communication, max. 11 - adjustable for SP communication, max. 11 - adjustable for SP communication, max. 11 - adjustable for SP basic communication, max. 11 - adjustable for SP basic communication, min. 0 - adjustable for SP basic communication, max. 12 Number of login stations for message functions, max. 2 SP message functions 4: max. SP message functions 4: max. Statis bork Yes Single step Yes Single step Yes Number of variables, max. 30 <td> User data per job, max. </td> <td>180 kbyte; With PUT/GET</td>	 User data per job, max. 	180 kbyte; With PUT/GET
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	-	11
	 reserved for OP communication 	1
	 adjustable for OP communication, min. 	1
• usable for S7 basic communication 8 reserved for S7 basic communication, min. 0 adjustable for S7 basic communication, max. 8 • usable for routing 4; max. S7 message functions 12; Depending on the configured connections for PG/OP and S7 basic communication. Number of login stations for message functions, max. 0 Process diagnostic messages Yes simultaneously active Alarm-S blocks, max. 40 Process diagnostic messages Yes Status block Yes Single step Yes Number of breakpoints 2 Status/control 2 • Variables, max. 30 - of which status variables, max. 30 - of which control variables, max. 30 - of which control variables, max. 14 Forcing Yes • Forcing, variables, max. 10 • Forcing, variables, max. 100 • Forcing, variables, max. 100 • Number of entries, max. 100 • Prosent Yes • Number of entries, max. 100 • Diagnostic buffer Yes • Status indicator LED Yes • Status indicator LED Yes • Status indicator digital	-	11
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• usable for routing 4; max. S7 message functions	— adjustable for S7 basic communication, min.	0
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communication Process diagnostic messages Yes simultaneously active Alarm-S blocks, max. 40 Test commissioning functions	- adjustable for S7 basic communication, max.	8
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Number of variables, max. 10 Diagnostic buffer present Number of entries, max. Yes Number of entries, max. 100 Interrupts/diagnostics/status information Diagnostics indication LED Status indicator digital input (green) Yes Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30
Diagnostic buffer • present Yes • Number of entries, max. 100 Interrupts/diagnostics/status information Diagnostics indication LED • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. Forcing 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes
• present Yes • Number of entries, max. 100 Interrupts/diagnostics/status information Diagnostics indication LED • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes 2 Yes 12 Yes 13 14 Yes 14
Number of entries, max. 100 Interrupts/diagnostics/status information Diagnostics indication LED • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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, variables Number of variables, max. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes 2 Yes 12 Yes 13 14 Yes 14
Interrupts/diagnostics/status information Diagnostics indication LED • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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, variables Number of variables, max. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10
Diagnostics indication LED • Status indicator digital input (green) Yes • Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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, max. Diagnostic buffer 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10
Status indicator digital input (green) Yes Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10
Status indicator digital output (green) Yes	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10
	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10
Integrated Functions	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. of which control variables, max. forcing Forcing Forcing, variables, max. Diagnostic buffer present Number of entries, max. 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes 2 Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10 Yes 10
	 adjustable for S7 basic communication, max. usable for routing S7 message functions Number of login stations for message functions, max. Process diagnostic messages simultaneously active Alarm-S blocks, max. 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. of which control variables, max. procing Forcing Forcing, variables Number of variables, max. Diagnostic buffer present Number of entries, max. Interrupts/diagnostics/status information Diagnostics indication LED Status indicator digital input (green) Status indicator digital output (green) 	8 4; max. 12; Depending on the configured connections for PG/OP and S7 basic communication Yes 40 Yes Yes Yes Inputs, outputs, memory bits, DB, times, counters 30 30 14 Yes Inputs, outputs 10 Yes Inputs, outputs 10 Yes

Counter	
Number of counters	4; See "Technological Functions" manual
Counting frequency, max.	60 kHz
Frequency measurement	Yes
Number of frequency meters	4; up to 60 kHz (see "Technological Functions" manual)
controlled positioning	Yes
integrated function blocks (closed-loop control)	PID controller (see "Technological Functions" manual)
PID controller	Yes
Number of pulse outputs	4; Pulse width modulation up to 2.5 kHz (see "Technological Functions" Manual)
Limit frequency (pulse)	2.5 kHz
Potential separation	
Potential separation digital inputs	
 Potential separation digital inputs 	Yes
 between the channels 	No
 between the channels and backplane bus 	Yes
Potential separation digital outputs	
 Potential separation digital outputs 	Yes
between the channels	Yes
 between the channels, in groups of 	8
between the channels and backplane bus	Yes
Potential separation analog inputs	
 Potential separation analog inputs 	Yes; common for analog I/O
between the channels	No
 between the channels and backplane bus 	Yes
Potential separation analog outputs	
Potential separation analog outputs	Yes; common for analog I/O
between the channels	No
 between the channels and backplane bus 	Yes
Isolation	
	600 V DC
Isolation tested with	600 V DC
Isolation tested with configuration / header	600 V DC
Isolation tested with configuration / header Configuration software	
Isolation tested with configuration / header Configuration software • STEP 7	600 V DC Yes; V5.3 SP2 with HW update
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header	Yes; V5.3 SP2 with HW update
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set	Yes; V5.3 SP2 with HW update see instruction list
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels	Yes; V5.3 SP2 with HW update see instruction list 8
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC)	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB)	Yes; V5.3 SP2 with HW update see instruction list 8
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language — LAD — FBD	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL	Yes; V5.3 SP2 with HW update See instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph®	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language LAD FBD STL SCL CFC GRAPH HiGraph® Know-how protection	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph® Know-how protection • User program protection/password protection	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph® Know-how protection • User program protection/password protection Dimensions	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph® Know-how protection • User program protection/password protection Dimensions Width	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph® Know-how protection • User program protection/password protection Dimensions Width Height	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph® Know-how protection • User program protection/password protection Dimensions Width Height Depth Weights	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes Yes Yes Yes Yes Yes Yes Yes 120 mm 125 mm 130 mm
Isolation tested with configuration / header Configuration software • STEP 7 configuration / programming / header • Command set • Nesting levels • System functions (SFC) • System function blocks (SFB) Programming language - LAD - FBD - STL - SCL - CFC - GRAPH - HiGraph® Know-how protection • User program protection/password protection Dimensions Width Height Depth	Yes; V5.3 SP2 with HW update see instruction list 8 see instruction list see instruction list Yes