SIEMENS

Data sheet 6ES7151-1CA00-3BL0

Figure similar

*** spare part *** ET 200S Compact, 16 DI/16 DQ STD 24 V DC, 3 ms,; 24 V DC, 0.5 A expandable by up to 12 modules of the ET 200S (no F modules) electronics block

General information	
Vendor identification (VendorID)	8200H
Product function	
● Isochronous mode	No
Supply voltage	
Load voltage 1L+	
● Rated value (DC)	24 V
● Reverse polarity protection	Yes
Input current	
from supply voltage 1L+, max.	100 mA
Power loss	
Power loss, typ.	3 W
Address area	
Addressing volume	
● Inputs	100 byte
● Outputs	100 byte
Digital inputs	
Number of digital inputs	16
Input voltage	
● Type of input voltage	DC
● Rated value (DC)	24 V
● for signal "0"	-30 to +5 V
● for signal "1"	13 to 30V
Input current	
● for signal "1", typ.	3 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", min.	1.2 ms; typically 3 ms
— at "0" to "1", max.	4.8 ms; typically 3 ms
— at "1" to "0", min.	1.2 ms; typically 3 ms
— at "1" to "0", max.	4.8 ms; typically 3 ms
Cable length	
● unshielded, max.	1 000 m
Digital outputs	
Number of digital outputs	16
Short-circuit protection	Yes
Limitation of inductive shutdown voltage to	L+ (-55 to -60 V)
Controlling a digital input	Yes
Switching capacity of the outputs	

● on lamp load, max.	5 W
Output voltage	
● for signal "1", min.	L+ (-0.8 V)
Output current	
● for signal "1" permissible range, min.	7 mA
● for signal "1" permissible range, max.	0.6 A
● for signal "0" residual current, max.	0.5 mA
Output delay with resistive load	
● "0" to "1", max.	0.5 ms
● "1" to "0", max.	1.3 ms
Switching frequency	
● with resistive load, max.	100 Hz
● with inductive load, max.	2 Hz
● on lamp load, max.	10 Hz
Total current of the outputs (per group)	
all mounting positions	
— up to 60 °C, max.	2 A
Cable length	
● unshielded, max.	1 000 m
Encoder	
Connectable encoders	
● 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
1. Interface	
Interface types	
● RS 485	Yes
● Output current of the interface, max.	80 mA
Interface types	
RS 485	
● Transmission rate, max.	12 Mbit/s
● Cable length, max.	1 200 m
Protocols	
Supports protocol for PROFINET IO	No
PROFIBUS DP	Yes
Protocols (Ethernet)	
● TCP/IP	No
PROFIBUS DP	
Services	
— Direct data exchange (slave-to-slave communication)	Yes
Interrupts/diagnostics/status information	
Alarms	No
Diagnostics function	Yes
Diagnostics indication LED	
● Bus fault BF (red)	Yes
● Group error SF (red)	Yes
● Status indicator digital input (green)	Yes
● Status indicator digital output (green)	Yes
● Monitoring 24 V voltage supply ON (green)	Yes
Potential separation	
between backplane bus and electronics	No
between supply voltage and electronics	No
Potential separation digital inputs	
● Potential separation digital inputs	No
Potential separation digital outputs	
● Potential separation digital outputs	Yes
Isolation	
Isolation tested with	500 V DC
Degree and class of protection	
IP degree of protection	IP20
connection method / header	

Design of electrical connection for the inputs and outputs	Screw-type and spring-loaded terminals, permanent wiring; 3 and 4-wire connection
Dimensions	
Width	120 mm
Height	81 mm
Depth	58 mm
Weights	
Weight, approx.	230 g; EB only

last modified: 10/25/2022