SIEMENS

Data sheet

6ES7151-1CA00-3BL0



*** 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

Figure similar

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	40 1 : 11 0
— 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. — at "1" to "0", max.	1.2 ms; typically 3 ms
Cable length	4.8 ms; typically 3 ms
• 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	
Times our and output	

Display verticals	• on lamp load, max.	5 W
• for signal "1", min. Circular Current • for signal "1" permissible range, min. • for signal "1" permissible range, max. • for signal "1" permissible range, ma	·	O **
Couple current Or signal "1" permissible range, min.	·	I + (-0.8 V)
• for signal "1" permissible range, max.		2. (0.0.1)
• for signal "1" permissible range, max.	·	7 mA
Or signal "O' residual current, max.	·	0.6 A
Output delay with resistive load	· · · · · · · · · · · · · · · · · · ·	
• "1" to "1", max.		
• ""1" to "0", max. * with resistive load, max. • with resistive load, max. • with inductive load, max. • with inductive load, max. • von lamp load, max. — up to 60 "C, ma		0.5 ms
Switching frequency • with risestive load, max. • with inductive load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • on lamp load, max. • unshieled, max. • unshieled, max. • Potential separation digital inputs • with sensor • Potential separation digital inputs • with inductive load on load to load. • on load on load on load on load. • on load on load on load. • with inductive load. • with inductive load. • on lamp load, max. • on lamp load, max. • lamp load. • on		1.3 ms
e with inductive load, max. 2 Hz 10 Hz 1		
e on lamp load, max Total current of the outputs (per group) all mounting positions — up to 60 °C, max. 2 A Cable length • unshielded, max. 1 000 m Incoder Connectable encoders • 2-wire sensor Yes — permissible quiescent current (2-wire sensor). — 1.5 mA **Transmission rate, max. 90 mA **Interface types — Cable length, max. 1 200 m **Protocols Supports protocol for PRCFINET IO No PROFIRISIS DP Protocols (Ethernet) — TCP/IP — No PROFIRIUS DP Protocols (Ethernet) — TCP/IP — No PROFIRIUS DP Senvices — Direct data exchange (slave-to-slave onnununcation) Interrupts/diagnostics/status information Alarms — Diagnostics function — Potential separation digital input (green) — Yes — Status indicator digital output (green) — Yes — Potential separation digital inputs — Potential separation digital outputs — Pote	with resistive load, max.	100 Hz
Total current of the outputs (per group) all mounting positions — up to 60 °C, max. Cable length • unshielded, max. 1 000 m Encoder Connectable encoders • 2-wire sensor — permissible quiescent current (2-wire sensor), max. 1.5 mA The sensor — permissible quiescent current (2-wire sensor), max. 1.1 metrace types • R\$ 485 • Output current of the interface, max. • 80 mA Interface types R\$ 485 • Transmission rate, max. • Cable length, max. 1 200 m Protocols Supports protocol for PROFINET IO PROFIBUS DP Protocols (Ethernet) • TCP/IP No PROFIBUS DP Protocols (Ethernet) • TCP/IP No PROFIBUS DP Services — Direct data exchange (slave-to-slave on munication) Interrupts'diagnostics/status information Alarms Diagnostics indication LED • Bus fault BF (red) • Status indicator digital input (green) • Status indicator digital output (green) • Status indicator digital output (green) • Status indicator digital inputs • Potential separation digital inputs • Potential separation digital outputs	 with inductive load, max. 	2 Hz
all mounting positions — up to 80 °C, max. Cable length • unshielded, max. 1 000 m Encoder Connectable encoders • 2-wire sensor — permissible quiescent current (2-wire sensor). — p	on lamp load, max.	10 Hz
— 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), 1.5 mA max. 1. Interface pyes • RS 485 • RS 485 • 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 (Etternet) • TCP/PP No PROFIBUS DP Protocols (Etternet) • TCP/PP No PROFIBUS DP Protocols (Etternet) • TCP/PP No Diagnostics indication LED • Bus fault BF (red) • Group error SF (red) • Status indicator digital input (green) • Status indicator digital output (green) • Status indicator digital output (green) • Status indicator digital output (green) • Mo Potential separation digital inputs • Potential separation digital outputs	Total current of the outputs (per group)	
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- 2-wire sensor	Encoder	
	Connectable encoders	
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Isolation tested with 500 V DC Degree and class of protection		100
Degree and class of protection		500 V DO
		500 V DC
IP degree of protection IP20		
	IP degree of protection	IP20
connection method / header	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
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