

SIMATIC DP, ELECTRONIC BLOCK FOR ET 200L, 16 DO, 24V DC/0.5A



Figure similar

General information	
Vendor identification (VendorID)	0016h
Supply voltage	
Rated value (DC)	24 V
Reverse polarity protection	Yes
Mains buffering	
• Mains/voltage failure stored energy time	20 ms
Load voltage L+	
• Rated value (DC)	24 V; 1L+, 2L+, 3L+
Input current	
from supply voltage L+, max.	70 mA; L4+ / L5+
from load voltage L+ (without load), max.	50 mA; Per load group (L1+ or L2+ / L3+)
Power loss	
Power loss, typ.	5 W
Hardware configuration	
Rack	
• required terminal block	TB 16L

Digital outputs	
Number of digital outputs	16
Short-circuit protection	Yes
• Response threshold, typ.	0,7 A
Limitation of inductive shutdown voltage to	Typ. (L1+ or L2+ / L3+) -55 V
Controlling a digital input	Yes
Switching capacity of the outputs	
• on lamp load, max.	5 W
Load resistance range	
• lower limit	41 Ω
• upper limit	28 000 Ω
Output voltage	
• Rated value (DC)	24 V
• for signal "1", min.	Ua - 3 V
Output current	
• for signal "1" permissible range, min.	1 mA
• for signal "1" permissible range, max.	0.5 A
• for signal "0" residual current, max.	1 mA
Output delay with resistive load	
• "0" to "1", max.	50 μ s
• "1" to "0", max.	200 μ s
Parallel switching of two outputs	
• for uprating	No
• for redundant control of a load	Yes; only outputs of the same group
Switching frequency	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz
• on lamp load, max.	8 Hz
Total current of the outputs (per group)	
horizontal installation	
— up to 30 °C, max.	4 000 mA
— up to 40 °C, max.	3 000 mA
— up to 60 °C, max.	2 000 mA
all other mounting positions	
— up to 40 °C, max.	2 A
Cable length	
• shielded, max.	1 000 m
• unshielded, max.	600 m
Interfaces	
PROFIBUS DP	
• Transmission rate, max.	1.5 Mbit/s

- SYNC capability
- Direct data exchange (slave-to-slave communication)

Yes
Yes; Transmitter (for digital outputs and hybrid modules ET 200L: not for L-SC or IM-SC)

Protocols

Bus protocol/transmission protocol PROFIBUS DP

Interrupts/diagnostics/status information

Alarms

• Alarms No

Diagnostic messages

• Diagnostic functions Yes

Diagnostics indication LED

• Bus fault BF (red) Yes
• Status indicator digital output (green) Yes
• Monitoring 24 V voltage supply ON (green) Yes

Potential separation

between PROFIBUS DP and all other circuit components Yes

Potential separation digital outputs

• between the channels No
• between the channels and PROFIBUS DP Yes; Optocoupler

Isolation

Isolation tested with 500 V DC

Degree and class of protection

Degree of protection acc. to EN 60529 IP20

Ambient conditions

Ambient temperature during operation

• horizontal installation, min. 0 °C
• horizontal installation, max. 60 °C; 40 °C for other mountings

Air pressure acc. to IEC 60068-2-13

• permissible range, lower limit 795 hPa
• permissible range, upper limit 1 080 hPa

Relative humidity

• Operation, min. 5 %
• Operation, max. 95 %; RH class 2 in accordance with IEC 1131-2

Vibrations

• Operation, tested according to IEC 60068-2-6 Yes; IEC 68, Part 2-6; 10 to 57 Hz; (constant amplitude 0.075 mm); 57 to 150 Hz; (constant acceleration 1 g)

Shock test

• tested according to IEC 60068-2-27 Yes; IEC 68, Part 2-27; half-sine, 15 g, 11 ms

Connection method

Inputs/outputs	Screw-type and spring-loaded terminals, permanent wiring; standard: 2-wire connection, optional: 3 and 4-wire connection
Dimensions	
Width	145 mm
Height	60 mm
Depth	60.5 mm
Weights	
Weight, approx.	130 g
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