

SPARE PART 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. • SYNC capability • Direct data exchange (slave-to-slave communication)	1.5 Mbit/s 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	No
Diagnostic functions	Yes
Diagnostics indication LED	
• Bus fault BF (red) • Status indicator digital output (green) • Monitoring 24 V voltage supply ON (green)	Yes Yes Yes
Potential separation	
between PROFIBUS DP and all other circuit components	Yes
Potential separation digital outputs	
• between the channels • between the channels and PROFIBUS DP	No 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. • horizontal installation, max.	0 °C 60 °C; 40 °C for other mountings
Air pressure acc. to IEC 60068-2-13	
• permissible range, lower limit • permissible range, upper limit	795 hPa 1 080 hPa
Relative humidity	
• Operation, min. • Operation, max.	5 % 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	

Design of electrical connection for the inputs and 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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