

\*\*\*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
<ul style="list-style-type: none"> <li>• Response threshold, typ.</li> </ul>	0.7 A
Limitation of inductive shutdown voltage to	Typ. (L1+ or L2+ / L3+) -55 V
Controlling a digital input	Yes
<b>Switching capacity of the outputs</b>	
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	5 W
<b>Load resistance range</b>	
<ul style="list-style-type: none"> <li>• lower limit</li> </ul>	41 $\Omega$
<ul style="list-style-type: none"> <li>• upper limit</li> </ul>	28 000 $\Omega$
<b>Output voltage</b>	
<ul style="list-style-type: none"> <li>• Rated value (DC)</li> </ul>	24 V
<ul style="list-style-type: none"> <li>• for signal "1", min.</li> </ul>	Ua - 3 V
<b>Output current</b>	
<ul style="list-style-type: none"> <li>• for signal "1" permissible range, min.</li> </ul>	1 mA
<ul style="list-style-type: none"> <li>• for signal "1" permissible range, max.</li> </ul>	0.5 A
<ul style="list-style-type: none"> <li>• for signal "0" residual current, max.</li> </ul>	1 mA
<b>Output delay with resistive load</b>	
<ul style="list-style-type: none"> <li>• "0" to "1", max.</li> </ul>	50 $\mu$ s
<ul style="list-style-type: none"> <li>• "1" to "0", max.</li> </ul>	200 $\mu$ s
<b>Parallel switching of two outputs</b>	
<ul style="list-style-type: none"> <li>• for uprating</li> </ul>	No
<ul style="list-style-type: none"> <li>• for redundant control of a load</li> </ul>	Yes; only outputs of the same group
<b>Switching frequency</b>	
<ul style="list-style-type: none"> <li>• with resistive load, max.</li> </ul>	100 Hz
<ul style="list-style-type: none"> <li>• with inductive load, max.</li> </ul>	0.5 Hz
<ul style="list-style-type: none"> <li>• on lamp load, max.</li> </ul>	8 Hz
<b>Total current of the outputs (per group)</b>	
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
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>• shielded, max.</li> </ul>	1 000 m
<ul style="list-style-type: none"> <li>• unshielded, max.</li> </ul>	600 m

## Interfaces

PROFIBUS DP

• Transmission rate, max.	1.5 Mbit/s
• SYNC capability	Yes
• Direct data exchange (slave-to-slave communication)	Yes; Transmitter (for digital outputs and hybrid modules ET 200L: not for L-SC or IM-SC)

### Protocols

Bus protocol/transmission protocol	PROFIBUS DP
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### Interrupts/diagnostics/status information

Alarms	No
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
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#### Potential separation digital outputs

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

### Isolation

Isolation tested with	500 V DC
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### Degree and class of protection

Degree of protection acc. to EN 60529	IP20
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### 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)
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#### Shock test

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

Width	145 mm
Height	60 mm
Depth	60.5 mm

### Weights

Weight, approx.	130 g
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**last modified:** 03/07/2017