

\*\*\* SPARE PART\*\*\* SIMATIC DP, ELECTRONIC MODULE  
DIGITAL, FOR ET 200B, W=235MM, 24DI 24V DC, 8DO 24V DC,  
0.5A, 0.2MS INPUT DELAY, STANDARD

Supply voltage	
Rated value (DC)	24 V; L1+, L5+; value at t < 0.5 s: 35 V
permissible range, lower limit (DC)	18.5 V
permissible range, upper limit (DC)	30.2 V
Input current	
Current consumption, typ.	85 mA; From L5+; logic
Current consumption, max.	1 000 mA; from L5+; sensor
I <sup>2</sup> t	0.05 A <sup>2</sup> ·s; with starting current inrush
Power loss	
Power loss, max.	5.5 W
Hardware configuration	
Rack	
• required terminal block	TB2/DC, TB2-4/DC, TB4/DC, TB4-4/DC
Digital inputs	
Number of digital inputs	24
Input voltage	
• Rated value (DC)	24 V
• for signal "0"	-30 to +5V
• for signal "1"	13 to 30V
Input current	
• for signal "1", typ.	4 mA
Input delay (for rated value of input voltage)	
for standard inputs	
— at "0" to "1", max.	0.2 ms
Cable length	
• unshielded, max.	100 m
Digital outputs	
Number of digital outputs	8
Short-circuit protection	Yes; Electronic
Limitation of inductive shutdown voltage to	typically (L1+) -55 V
Controlling a digital input	Yes
Output voltage	
• Rated value (DC)	24 V

• for signal "0", max.	2 V; idling
• for signal "1", min.	UE -3 V
<b>Output current</b>	
• for signal "1" permissible range, max.	0.5 A; in one group
• for signal "0" residual current, max.	1 mA
<b>Output delay with resistive load</b>	
• "0" to "1", max.	20 µs
• "1" to "0", max.	0.5 ms
<b>Switching frequency</b>	
• with resistive load, max.	100 Hz
• with inductive load, max.	0.5 Hz
• on lamp load, max.	8 Hz
<b>Total current of the outputs (per group)</b>	
all mounting positions	
— up to 60 °C, max.	2 A
<b>Cable length</b>	
• unshielded, max.	100 m
<b>Encoder</b>	
<b>Connectable encoders</b>	
• 2-wire sensor	Yes
— permissible quiescent current (2-wire sensor), max.	1.5 mA
<b>Interfaces</b>	
<b>PROFIBUS DP</b>	
• Transmission rate, max.	12 Mbit/s
• SYNC capability	Yes
• FREEZE capability	Yes
<b>Protocols</b>	
Bus protocol/transmission protocol	PROFIBUS DP
<b>Interrupts/diagnostics/status information</b>	
<b>Diagnostics indication LED</b>	
• RUN LED	Yes
• Bus fault BF (red)	Yes
• Status indicator digital input (green)	Yes
• Status indicator digital output (green)	Yes
<b>Potential separation</b>	
between electronic block and PROFIBUS DP	Yes
<b>Potential separation digital inputs</b>	
• Potential separation digital inputs	No
<b>Potential separation digital outputs</b>	

- Potential separation digital outputs
- between the channels, in groups of

Yes

8

### 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. 15 %
- 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

Design of electrical connection for the inputs and outputs

Screw-type and spring-loaded terminals, permanent wiring; 3 and 4-wire connection

### Dimensions

Width	235 mm; EB and TB
Height	130 mm; EB and TB
Depth	60 mm; EB and TB

### Weights

Weight, approx. 800 g; EB and TB

**last modified:**

03/07/2017