

SIMATIC S7-200, EM253 Positioning expansion module, 200 kHz, for controlling stepper motors or servo drives, open-loop control, programming via Micro/WIN



### Supply voltage

permissible range, lower limit (DC)	11 V
permissible range, upper limit (DC)	30 V

### Input current

from supply voltage L+, max.	300 mA; from 12 V DC, 130 mA from 24 V DC
from backplane bus 5 V DC, max.	190 mA

### Power loss

Power loss, typ.	2.5 W
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### Hardware configuration

Number of modules per CPU	max. 5 with CPU 226/226XM, max. 3 with CPU 224, max. 1 with CPU 222
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### Digital inputs

Number of digital inputs	5; P-reading
Functions	Stop (STP), reference point switch (RPS), upper limit switch (LMT+), lower limit switch (LMT-), zero point (ZP)
Input characteristic curve in accordance with IEC 61131, type 1	Yes

### Input voltage

<ul style="list-style-type: none"> <li>Rated value (DC)</li> <li>for signal "0"</li> <li>for signal "1"</li> </ul>	24 V STP, RPS, LMT+, LMT- DC 5 V; ZP DC 1 V STP, RPS, LMT+, LMT- DC 15 V; ZP DC 3 V
<b>Input delay (for rated value of input voltage)</b>	
for standard inputs	
— parameterizable	Yes; STP, RPS, LMT+, LMT- 0.2 to 12.8 ms; ZP min 2 $\mu$ s
<b>Cable length</b>	
<ul style="list-style-type: none"> <li>shielded, max.</li> <li>unshielded, max.</li> </ul>	100 m; STP, RPS, LMT+, LMT- 100 m, ZP 10 m 30 m; STP, RPS, LMT+, LMT- 30 m, ZP not recommended
<b>Encoder</b>	
Connectable encoders	
<ul style="list-style-type: none"> <li>2-wire sensor</li> <li>— permissible quiescent current (2-wire sensor), max.</li> </ul>	Yes 1 mA
<b>Drive interface</b>	
Signal output I	
<ul style="list-style-type: none"> <li>Number</li> <li>Type</li> <li>Differential output voltage, min.</li> <li>Pulse frequency</li> <li>Cable length, max.</li> </ul>	4; optionally RS 422/RS 485 or 5 V DC RS 422 / RS 485 (P0+, P0-, P1+, P1-) 2.8 V; RL = 200 ohms 200 kHz; (P0+, P0-, P1+, P1-, P0, P1) 10 m; shielded; 1 m unshielded
Signal output II	
<ul style="list-style-type: none"> <li>Type</li> <li>Output voltage</li> <li>Output current</li> </ul>	5 V DC(P0, P1, DIS, CLR) 30 V DC 50 mA; output delay (DIS, CLR) max. 30 $\mu$ s
<b>Potential separation</b>	
Potential separation digital inputs	
<ul style="list-style-type: none"> <li>between the channels</li> <li>between the channels, in groups of</li> </ul>	Yes 1 (STP, RPS, ZP), 2 (LMT-, LMT+)
<b>Permissible potential difference</b>	
between different circuits	500 V AC
<b>Dimensions</b>	
Width	71.2 mm
Height	80 mm
Depth	62 mm
<b>Weights</b>	
Weight, approx.	190 g
<b>last modified:</b>	04/23/2018