

**Data sheet**  
**SM 232 (232-1BD51)**
**Technical data**

<b>Order no.</b>	<b>232-1BD51</b>
Type	SM 232
<b>General information</b>	
Note	-
Features	4x AO 12 Bit Voltage +/- 10 V, 1...5 V, 0...10 V Current +/- 20 mA, 0/4...20 mA Parameterizable
<b>Current consumption/power loss</b>	
Current consumption from backplane bus	75 mA
Current consumption from load voltage L+ (without load)	-
Power loss	1.8 W
<b>Technical data analog outputs</b>	
Number of outputs	4
Cable length, shielded	200 m
Rated load voltage	DC 24 V
Reverse polarity protection of rated load voltage	yes
Current consumption from rated load voltage	60 mA
Voltage output short-circuit protection	yes
Voltage outputs	yes
Min. load resistance (voltage range)	1 kOhm
Max. capacitive load (current range)	1 µF
Max. inductive load (current range)	30 mA
Output voltage ranges	-10 V ... +10 V +1 V ... +5 V 0 V ... +10 V
Operational limit of voltage ranges	+/-0.4% ... +/-0.8%
Basic error limit voltage ranges	+/-0.2% ... +/-0.4%
Destruction limit against external applied voltage	max. 15V
Current outputs	yes
Max. in load resistance (current range)	500 Ohm
Max. inductive load (current range)	10 mH
Typ. open circuit voltage current output	12 V
Output current ranges	0 mA ... +20 mA +4 mA ... +20 mA -20 mA ... +20 mA
Operational limit of current ranges	+/-0.3% ... +/-0.8%
Basic error limit current ranges	+/-0.2% ... +/-0.5%
Destruction limit against external applied voltage	max. 15V
Settling time for ohmic load	0.05 ms
Settling time for capacitive load	0.5 ms
Settling time for inductive load	0.1 ms
Resolution in bit	12
Conversion time	0.45 ms / channel
Substitute value can be applied	no

Output data size	8 Byte
<b>Status information, alarms, diagnostics</b>	
Status display	none
Interrupts	yes
Process alarm	no
Diagnostic interrupt	yes, parameterizable
Diagnostic functions	yes
Diagnostics information read-out	possible
Supply voltage display	none
Group error display	red SF LED
Channel error display	none
<b>Isolation</b>	
Between channels	-
Between channels of groups to	-
Between channels and backplane bus	yes
Between channels and power supply	yes
Max. potential difference between circuits	-
Max. potential difference between inputs (Ucm)	-
Max. potential difference between Mana and Mintern (Uiso)	DC 75 V/ AC 50 V
Max. potential difference between inputs and Mana (Ucm)	-
Max. potential difference between inputs and Mintern (Uiso)	-
Max. potential difference between Mintern and outputs	-
Insulation tested with	DC 500 V
<b>Datasizes</b>	
Input bytes	0
Output bytes	8
Parameter bytes	8
Diagnostic bytes	4
<b>Housing</b>	
Material	PPE / PA 6.6
Mounting	Profile rail 35 mm
<b>Mechanical data</b>	
Dimensions (WxHxD)	25.4 mm x 76 mm x 88 mm
Net weight	100 g
Weight including accessories	-
Gross weight	-
<b>Environmental conditions</b>	
Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C
<b>Certifications</b>	
UL certification	yes
KC certification	-