

8B Insertable Module

MSR 231



This module is used as a carrier for two 8B modules. In addition, each channel has a 24 V supply voltage.

Over the diagnostic connector, the processed input signals can be measured.

List of Maximum Current Consumption of 8B Modules

8B module used	Current consumption	Note
Voltage input	25 mA	
PT100	25 mA	
Potentiometer	25 mA	
Thermocouple	30 mA	
Frequency input	45 mA	
Current output	100 mA	
Voltage output	120 mA	(no load: 55 mA)
Current transmitter	125 mA	
Strain gauge input	150 mA	(without bridge supply: 110 mA)

Supply Voltage 0 ... +60 °C

Output voltage	+23.343 V ... 24.330 V ... 25.127 V
Output current/channel	maximum 100 mA short-circuit proof
Total current/base module	maximum 800 mA
Galvanic isolation	500 V DC

Diagnostic Connector

Voltage range	±5 V
Load capacity	10 mA
Short-circuit proof	yes

Article Number and Miscellaneous

Article number	18-001-231
Hardware version	1.x

Environmental Conditions

Storage temperature	-30 ... +85 °C
Operating temperature	0 ... +60 °C
Humidity	0-95 %, non-condensing
EMC stability	in accordance with EN 61000-6-2:2001 (industrial area)
Shock resistance	EN 60068-2-27
Protection type	EN 60529
	IP00

Analog Channel Specifications

Number of channels	2
Measurement range [Volt]	according to 8B module specification
Measurement range [Digit]	±30000
Resolution [Volt]	166.6 µV/bits output signal of the 8B modules (± 5 V)
Resolution [bits]	16
Sensor break detection	according to 8B module specification
Conversion time per channel	$\leq 25 \mu\text{s}$
Input filter	according to 8B module specification
Common mode range	according to 8B module specification
Input resistance	according to 8B module specification
Measurement precision (based on the measurement range)	according to 8B module specification typically $\pm 0.0205 \%$
Status display	ERROR (red) (located on the base)
Converter	18-bit serial SAR