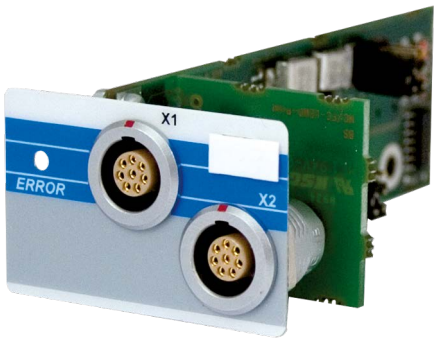
FC Insertable Module
MSR 251



This module has two counter or SSI (Serial Synchronous Interface) inputs. The counters are 32 bits wide and can be used as a counter or frequency meter. The two channels can be configured through the software as counters or an SSI interface. The SSI interface is designed to function as an SSI sensor. Uncoded and Gray encoded sensors are supported.

Analog Channel Specifications

Number of channels	2 counter inputs (or SSI)	
Counter width	32-bit	
Counter frequency	50 MHz internal 5 MHz external	
Time base accuracy	quartz frequency stability: ±100 ppm, aging: ±5 ppm p.a.	
Signal level (can be selected for each channel using a jumper)	RS422 inputs: 150 Ohm bus termination, per 1.2-Ohm resistor to 5 volts spread and mass	+5 V/+24 V (GND-based) switching threshold: typically 2 V input filter: 50 µs counter frequency: max. 10 kHz
Prescaler	16-bit, software configurable	
Pulse suppression	16-bit counter with 1 MHz, software configurable (0-65.53 ms in 1 µs steps)	
Configuration	Up/Down ENABLE LOAD Flank Counter source	per software per software per software per software per software
Inputs	2 inputs, which can be optionally used as counters or SSI data inputs.	
Reference counter	internal counter with programmable prescaler. If the counter of the respective channel is raised, the reference counter is saved.	

SSI Encoder Specifications

Number of channels	2 SSI (or 2 counter inputs)
SSI signal level	RS422 inputs: 150 Ohm bus termination, per 1.2-Ohm resistor to 5 volts spread and mass outputs: without spreading or bus termination
Shift register frequency	125 kHz-1 MHz
Shift register length	maximum 32 bits
Signal evaluation	Gray code or binary

Output Voltage

Output voltage	+5 V/short-circuit protected 4.5 V-5.5 V/0.1 A 4.0 V-5.5 V/0.2 A
Total current 5 V per module	400 mA
Total current 5 V per base	1.6 A
Total current 5 V per system	3 A

Article Number and Miscellaneous

Article number	18-001-251
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	150 m/s²
Protection type	EN 60529	IP00