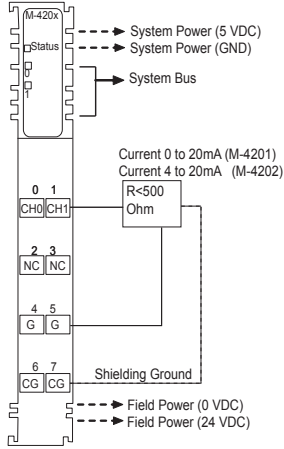




# Analog Output Modules

## General Resolution



**M-4201** 2 analog outputs, 0 to 20 mA, 12-bit  
**M-4202** 2 analog outputs, 4 to 20 mA, 12-bit

### Output Specifications

**Resolution in Ranges:** 12 bits, 4.88  $\mu\text{A}/\text{bit}$  (M-4201)  
 12 bits, 3.91  $\mu\text{A}/\text{bit}$  (M-4202)  
**Output Current Range:** 0 to 20 mA (M-4201)  
 4 to 20 mA (M-4202)

**Data Format:** 16-bit integer (2's complement)  
**Accuracy:** +/- 0.1%, FSR @ 25°C  
 +/- 0.3%, FSR @ 0°C, 60°C

**Output Impedance:** Max. 500 ohm  
**Conversion Time:** 2 ms / all channels

### General Specifications

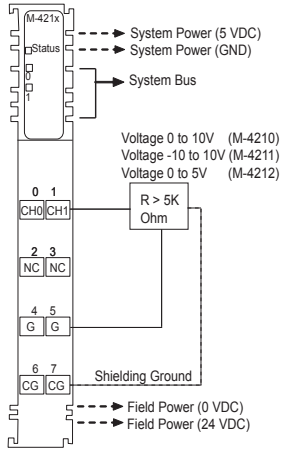
**Power Consumption:** Max. 65 mA @ 5 VDC  
**Isolation:** I/O to logic: 1K VDC galvanic isolation  
**Wiring:** I/O cable max. AWG14

#### Conversion Table (M-4201)

Current	0 mA	5 mA	10 mA	20 mA
Data (Hex)	H0000	H03FF	H07FF	H0FFF

#### Conversion Table (M-4202)

Current	4 mA	5 mA	10 mA	20 mA
Data (Hex)	H0000	H00FF	H05FF	H0FFF



**M-4210** 2 analog outputs, 0 to 10V, 12-bit  
**M-4211** 2 analog outputs, -10 to 10V, 12-bit  
**M-4212** 2 analog outputs, 0 to 5V, 12-bit

### Input Specifications

**Resolution in Ranges:** 12 bits, 2.44 mV/bit (M-4210)  
 12 bits, 4.88 mV/bit (M-4211)  
 12 bits, 1.22 mV/bit (M-4212)

**Output Current Range:** 0 to 10 VDC (M-4210)  
 -10 to 10 VDC (M-4211)  
 0 to 5 VDC (M-4212)

**Data Format:** 16-bit integer (2's complement)  
**Accuracy:** +/- 0.1%, FSR @ 25°C  
 +/- 0.3%, FSR @ 0°C, 60°C

**Output Impedance:** Min. 5 Kohm  
**Conversion Time:** 2 ms / all channel

### General Specifications

**Power Consumption:** Max. 200 mA @ 5 VDC  
**Isolation:** I/O to logic: 1K VDC galvanic isolation  
**Wiring:** I/O cable max. AWG14

#### Conversion Table (M-4210)

Voltage	0V	2V	5V	10V
Data (Hex)	H0000	H0333	H07FF	H0FFF

#### Conversion Table (M-4211)

Voltage	-10V	-5V	0V	5V	10V
Data (Hex)	HF800	HFC00	H0000	H3FFF	H07FF

#### Conversion Table (M-4212)

Voltage	0V	2V	4V	5V
Data (Hex)	H0000	H0666	H0CCC	H0FFF