

MCR-AX04

Datasheet

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1 Product Overview

1.1 Product introduction

The MCR7 series expansion module is an IO module, integrating advanced industry technologies and components, suitable for MCR7 series PLCs.

1.2 Product Appearance



2 Main Information

Range of Product	MCR-AX04
Product Or Component Type	Analog I/O mixed expansion module
Analog input Channels	2
Analog input Type	Voltage/Current
Resolution	16 Bit
Analog output Channels	2
Analog output Type	Voltage/Current
Resolution	16 Bit

3 Detail Specification

3.1 Module Specification - Analog Input

Input Characteristics	Parameter	
Input range	◆ Voltage input: -10~10V DC or 0~10V DC ◆ Current input: 0~20mA or 4~20mA	
Input impedance	◆ Voltage input: >200kΩ ◆ Current input: 237.5~262.5Ω	
I/O terminal	Removable terminal block	
Sampling time	1ms /Channel + 1cycle	
Total input system transfer time	4 ms+1cycle	
Input deviation	Max ±0.2 % of Full range	
Resolution	16 Bits	
Temperature drift	± 0.06% of Full range	
Common-mode rejection	40 dB, DC to 60 Hz	
Noise suppression	0~5000ms	
Non-linear	±0.4% of Full range	
Maximum operating input (no damage)	±30V DC	±30mA DC
Type of protection	Input isolated from internal power supply	
Misconfiguration (voltage -> current)	◆ When the input is between ±30V DC, no damage can be caused ◆ When the input exceeds ±30V DC, permanent damage is caused	
Misconfiguration (current -> voltage)	◆ When the input is between ±30 mA, no damage can be caused ◆ When the input exceeds ±30 mA, permanent damage is caused	
Cable type	Shielded cable	
Cable length	3~30m	

3.2 Module Specification - Analog Output

Output Characteristics	Parameter
Output range	◆ Voltage: 0~10V DC ◆ Current: 0~20mA or 4~20mA
Load impedance	◆ Voltage: >2kΩ ◆ Current: <500Ω
I/O terminal	Removable terminal block
Stabilization time	750us
Total output system transfer time	3ms+1cycle
Output error - total error	Max ± 0.5 % of Full range
Resolution	16 Bits
Temperature drift	± 0.06 % of Full range
Non-linear	± 0.5 % of Full range
Output protection	◆ Short circuit without damage (voltage output) ◆ Open circuit protection (current output)
Cable type	Shielded cable
Cable length	3~30m

3.3 Environmental Characteristics

Category	Characteristic
Operating ambient temperature	-10℃~60℃
Storage temperature	-20℃~70℃
Relative humidity	55%~95%, without condensation
Class of pollution	2 (IEC60664)
Class of protection	IP20
Coating	Coated protection, dry film thickness $\geq 20\mu\text{m}$; reinforced dry film thickness $\geq 40\mu\text{m}$
Altitude	Operation: 0m~3,000m Transportation: $\leq 6,000\text{m}$
Seismic performance	5~13.2Hz Amplitude 7mm, 13Hz~100Hz Acceleration 2G, 20 times each in X, Y and Z axes
Impact performance	Semi-positive sine wave, acceleration 15G, duration 11ms, 6 times in each of the X, Y and Z directions

3.4 Electromagnetic Susceptibility

Standard	Method	Item
EN IEC 61000-6-4:2019	CISPR 16-2-1	Conducted Emissions at AC Mains Power Port(150kHz-30MHz)
	CISPR 32	Conducted Emissions at Wired Network Port(150kHz-30MHz)
	CISPR 16-2-3	Radiated Emissions(30MHz-1GHz)
	CISPR 16-2-3	Radiated Emissions(Above 1GHz)
EN IEC 61000-6-2:2019	EN 61000-4-6:2014	Conducted Immunity at AC Mains Power Port(150kHz-80MHz)
	EN 61000-4-6:2014	Conducted Immunity at Signal Port(150kHz-80MHz)
	EN 61000-4-4:2012	Electrical Fast Transients Burst at AC Mains Power Port
	EN 61000-4-4:2012	Electrical Fast Transients Burst at Signal Port
	EN 61000-4-2:2009	Electro static Discharge
	EN 61000-4-8:2010	Power Frequency Magnetic Field
	EN IEC 61000-4-3:2020	Radiated Immunity(80MHz-6GHz)
	EN 61000-4-5:2014+A1:2017	Surge at AC Mains Power Port
	EN 61000-4-5:2014+A1:2017	Surge at Signal Port
	EN IEC 61000-4-11:2020	Voltage Dips and Interruptions

4 Dimension&Installation

4.1 Product Dimension

Dimension:

Unit: mm

