

INDUSTRIAL AUTOMATION PRODUCT

FC-SAI-1620M

Safe Analog Input Module

Sixteen 0 to 4.1 V safety-related analog-input signals

IDENTITY	VERIFIED VALUE
Manufacturer	Honeywell
System family	Honeywell Safety Manager
Part number	FC-SAI-1620M
Country	USA
HS code	8537101190

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Technical Specifications

Technical values below are limited to the named Honeywell product record.

PARAMETER	TECHNICAL VALUE
Input channels	16
Input range	0 to 4.1 V
Input impedance	>1 MOhm
Maximum load capacitance	100 nF
A/D resolution	12 bit
ADC inaccuracy	+/-1 LSB
Module inaccuracy	<0.25%
Absolute maximum input	+/-36 V DC
Crosstalk	>60 dB
External readback range	0 to 4.1 V
External readback impedance	1 MOhm typical
5 V DC current	35 mA
24 V DC current	35 mA
Module size	4TE, 3HE (4HP, 3U)
Approvals	CE, TUV, UL, CSA, FM

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System Role and Architecture

Sixteen 0 to 4.1 V safety-related analog-input signals

FUNCTION 1

Acquires sixteen safe analog input channels

FUNCTION 2

Measures within the documented zero-to-4.1-volt range

FUNCTION 3

Converts each channel with twelve-bit resolution

FUNCTION 4

Provides external readback for controlled verification

Matched system components

- Safety Manager I/O chassis
- conditioned analog safety transmitters
- 24 V DC module supply
- validated safety application

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	Safety Manager I/O chassis
Companion hardware	conditioned analog safety transmitters
Field connection	24 V DC module supply
Primary system function	Acquires sixteen safe analog input channels
Controlled acceptance duty	Analog trip-threshold monitoring

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Applications and Engineering Context

Analog trip-threshold monitoring

Acquires sixteen safe analog input channels

Safety transmitter acquisition

Measures within the documented zero-to-4.1-volt range

Process protection measurement

Converts each channel with twelve-bit resolution

Safe analog-input renewal

Provides external readback for controlled verification

TECHNICAL NOTE

Record channel scaling and trip thresholds, isolate transmitter loops and prove input accuracy, readback and trip behavior under the approved safety test procedure.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	FC-SAI-1620M / FC-SAI-1620M recorded
Physical interface	Safety Manager I/O chassis
Companion check	conditioned analog safety transmitters
Functional proof	Acquires sixteen safe analog input channels
Application test	Analog trip-threshold monitoring

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Engineering Precautions

- 1 Verify the complete FC-SAI-1620M marking and its assigned sixteen-channel safe analog-input position before work.
- 2 Place the connected process and control strategy in the approved maintenance state.
- 3 Isolate the applicable cabinet supply and analog input field energy before disconnecting conductors.
- 4 Record terminal numbers, channel assignments, polarity, shields and configured ranges before removal.
- 5 Use ESD controls and protect the backplane connector, terminal hardware and coated electronics.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
330101-00-60-10-02-05	Related industrial automation product	View 330101-00-60-10-02-05 page
330101-00-40-10-02-05	Related industrial automation product	View 330101-00-40-10-02-05 page
330101-00-40-10-02-00	Related industrial automation product	View 330101-00-40-10-02-00 page
330101-00-40-05-02-00	Related industrial automation product	View 330101-00-40-05-02-00 page
330101-00-30-10-02-05	Related industrial automation product	View 330101-00-30-10-02-05 page
330101-00-30-10-02-00	Related industrial automation product	View 330101-00-30-10-02-00 page
330101-00-20-05-02-00	Related industrial automation product	View 330101-00-20-05-02-00 page
330101-00-16-10-02-00	Related industrial automation product	View 330101-00-16-10-02-00 page

MANUFACTURER SOURCE RECORD

Honeywell Safety Manager Hardware Reference

EP-SM.MAN.6284, Issue 1.10

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