

FC-UGAI01

Universal Safety analog-input barrier adaptor

Honeywell FC-UGAI01 is a SIL2-rated single-channel galvanically isolated analog-input barrier adaptor for the CC-UGIA0 universal safety I/O assembly. It supports 4-20 mA and HART field signals with three-way isolation.

IDENTITY	VERIFIED VALUE
Manufacturer	Honeywell
Complete model	FC-UGAI01
Product role	Universal Safety analog-input barrier adaptor
System family	Universal Marshalling Solution for Safety
Country of origin	USA

DOCUMENT SCOPE

Exact identity, manufacturer-supported technical data, installation checks, applications, precautions and controlled verification records.

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FC-UGAI01

Technical Specifications

PARAMETER	VERIFIED VALUE
Channel count	Single channel
Safety rating	SIL2
Signal type	4-20 mA with HART
Isolation	Three-way galvanic isolation
Matched assembly	CC-UGIA0
Fault behavior	Field-side open-wire fault transparency
Input protection	Reverse-polarity protection

Model-Specific Engineering Note

ENGINEERING BOUNDARY

Install FC-UGAI01 only in the documented CC-UGIA0 position and confirm the field, safe-area and 24 V DC connections. Prove loop current, HART communication and open-wire fault transparency before returning the channel to service.

Pre-Installation Checks

NO.	REQUIRED CHECK
1	Verify the complete FC-UGAI01 marking before insertion.
2	Use only the documented CC-UGIA0 universal safety I/O assembly.
3	Confirm the hazardous-area and safe-area terminal sides before wiring.
4	Observe the documented 24 V DC feed path and polarity.
5	Keep the disconnect and fuse lever in the approved state during work.

System Role and Architecture

Honeywell FC-UGAI01 is a SIL2-rated single-channel galvanically isolated analog-input barrier adaptor for the CC-UGIA0 universal safety I/O assembly. It supports 4-20 mA and HART field signals with three-way isolation.

FUNCTION 1
Single-channel SIL2 analog barrier

FUNCTION 2
4-20 mA and HART pass-through

FUNCTION 3
Three-way galvanic isolation

FUNCTION 4
Open-wire transparency and polarity protection

Common Applications

APPLICATION	ENGINEERING CONTEXT
Safety transmitter marshalling	Interfaces one 4-20 mA safety transmitter through the universal marshalling assembly.
HART device access	Preserves documented HART communication for device setup and diagnostics.
Hazardous-area signal isolation	Separates field, safe-area and supply domains in the documented arrangement.
Open-wire diagnostics	Passes the documented field-side open-wire condition to the receiving safety I/O path.

CONTROLLED ACCEPTANCE DUTY
Confirm identity, physical interface, companion hardware, configured values and functional response against the installed-system record before release.

Engineering Precautions

NO.	PRECAUTION
1	Verify the complete FC-UGAI01 marking before insertion.
2	Use only the documented CC-UGIA0 universal safety I/O assembly.
3	Confirm the hazardous-area and safe-area terminal sides before wiring.
4	Observe the documented 24 V DC feed path and polarity.
5	Keep the disconnect and fuse lever in the approved state during work.
6	Prove 4-20 mA scaling at several controlled loop values.
7	Verify HART access without disturbing the safety measurement.
8	Create and clear an open-wire condition to verify diagnostic transparency.

Model-Specific FAQ — Part 1

QUESTION	ANSWER
What signal standard is supported by FC-UGAI01?	It supports a 4-20 mA analog input and HART communication.
What safety rating is documented for FC-UGAI01?	Honeywell specifies SIL2 for the single-channel barrier adaptor.
Which universal safety I/O assembly accepts FC-UGAI01?	The official specification pairs it with CC-UGIA0.
How many galvanic-isolation paths are provided by FC-UGAI01?	The module provides three-way isolation.

Model-Specific FAQ — Part 2

QUESTION	ANSWER
How does an open field wire behave through FC-UGAI01?	The module provides fault transparency for a field-side open-wire condition.
Does the input of tolerate reversed polarity FC-UGAI01?	Yes. Reverse-polarity protection is documented.
How many process channels are handled by FC-UGAI01?	It is a single-channel adaptor.
What commissioning evidence is required for FC-UGAI01?	Record loop scaling, HART access, open-wire behavior, polarity and the matched CC-UGIA0 position.

Related Products on Apter Power

MODEL	APTER POWER PAGE
Honeywell 10201-2-1	Open product page
Honeywell 10209-2-1	Open product page
Honeywell 10216-2-1	Open product page
Honeywell 10300-1-1	Open product page
Honeywell 10311-2-1	Open product page
Honeywell 2mlf-rd8a	Open product page
Honeywell 38500143-200	Open product page
Honeywell 51195096-200	Open product page

MANUFACTURER SOURCE RECORD

Universal Marshalling Solution for Safety Systems Specification
Version 2.0, March 2021; section 4.12

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