

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.

BRAND	Honeywell	ORIGIN	USA
MODEL	FC-UGAI01	HS CODE	8537101190
FAMILY	Universal Marshalling Solution for Safety	SHIP FROM	Xiamen, Fujian, China

MANUFACTURER SOURCE RECORD

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

APTER POWER SALES TEAM

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Product Overview

SYSTEM FUNCTION

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

TECHNICAL NOTE

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.

Technical Data and Acceptance

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

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.

Acceptance Path

1 IDENTITY

FC-UGAI01 and CC-UGIA0 match

2 SIGNAL

4-20 mA scaling verified

3 DIAGNOSTICS

HART and open-wire behavior verified

4 SAFETY PROOF

Channel test accepted

Applications and Engineering FAQ

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.

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.

FAQ, Related Products and Source

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 51202330-200	Open product page
Honeywell 51202343-001	Open product page
Honeywell 51202901-500	Open product page
Honeywell 51303940-200	Open product page
Honeywell 51303940-250	Open product page
Honeywell 51303976-400	Open product page
Honeywell 51303979-550	Open product page
Honeywell 51304159-100	Open product page

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