Honeywell

Technical Information

Universal Marshalling Solution Specification

EP-SCA-100 - ANALOG OUTPUT BARRIER (model CC- UGAO02)

Release 520

Sept 2024, Version 1.0

Revision History

Revision	Date	Description
1.0	Sept 2024	New model CC-UGAO02

Table of Contents

1 Overview

This document provides technical information for the following component of the Universal Marshalling Solution.

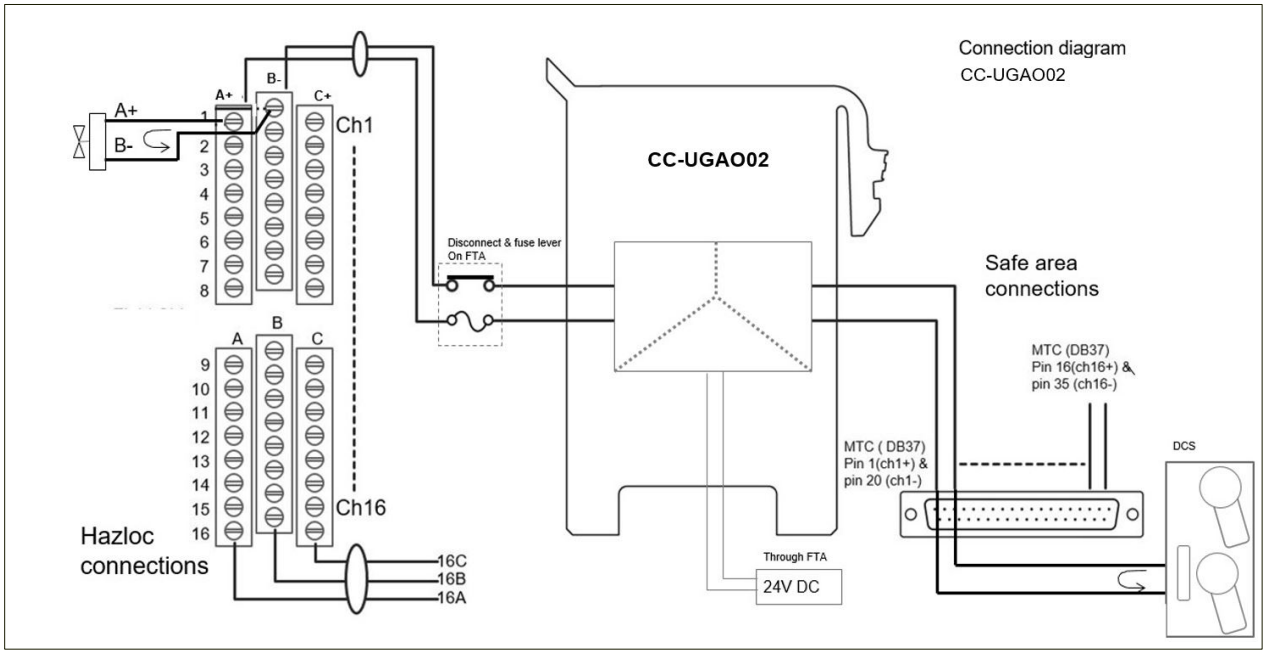
- Analog output barrier module

For information on the Universal Signal Conditioning Assembly, see the EP-SCA-100 CC-UGIA01 document.

2 Universal Analog Output Barrier CC-UGAO02

CC-UGAO02 is a single channel Galvanically Isolated Analog Output Barrier module which is suitable for use with Universal Signal Conditioning Assembly CC- UGIA01. This module supports 4-20mA and HART. CC-UGAO02 offers 3-way isolation, fault transparency for field side open wire conditions and field side reverse polarity protection.

2.1 Connections

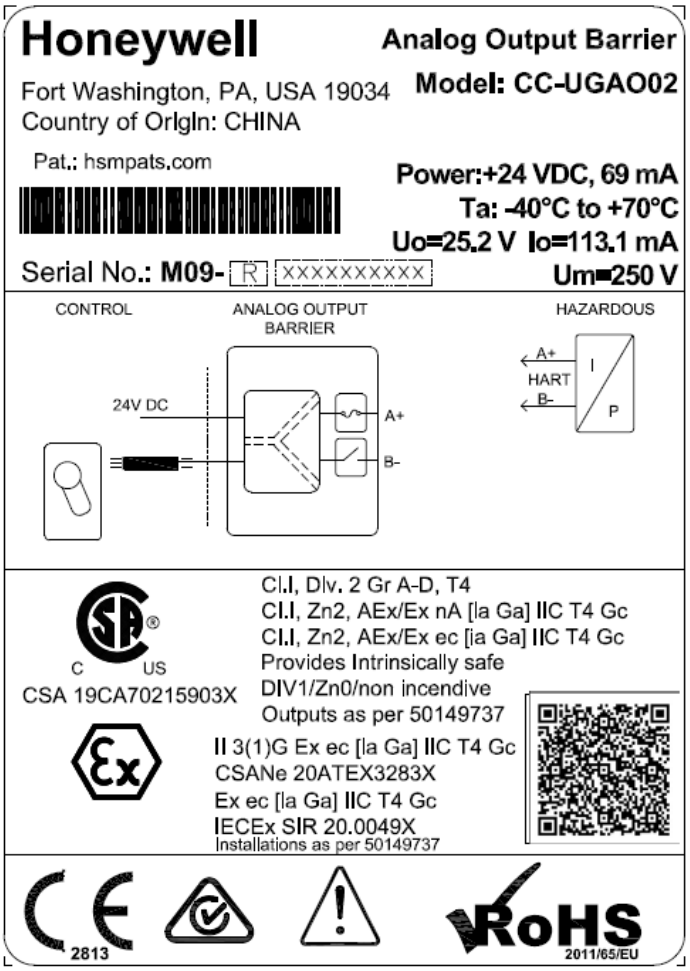


2.2 Detail Specifications

Parameter	Specification
Assembly	CC-UGIA01
Input / Output Model	CC-UGAO02 - Analog Output Barrier Module
Number of channels	1
Physical Specification	
Dimensions	141.5mm (L) x 85.75mm (W) x10mm (H).
Assembly option	Back-plane mount, screw less
Mistake Proofing	By mechanical Keys
Power Supply	
Power supply	24 VDC
Rated Current	69 mA at 24 V
Power Consumption	1.628 W at field current of 21.1 mA with field load of 200 ohm
Power dissipation	1.537 W at 24 VDC with 21.1 mA loop current & 200 ohm load
Power Indication	Green LED
Electrical Isolation	
Power/DCS to Field	1500 VAC
Safe side interface	
DCS side connections	37 pin DSUB connector on CC-UGIA01
Voltage Input	24 VDC
Interface to DCS	4 to 20mA with HART.
Wiring scheme	2 wire, CC-UGAO02 in sink mode.
HAZLOC side interface	
HAZLOC Terminals	Through 3 tier terminal blocks on CC-UGIA01
Transfer accuracy at 20^0C	+/- 20 uA
Max load	650 ohms (including cable resistance)
HAZLOC interface	A (+), B (-): 4-20 mA with HART
Influence of ambient temperature	Influence of ambient temperature reference to $+20^0$C 0^0C to $+70\ ^0$C: < 4uA / ^{0}C 0^0C to $-40\ ^0$C: < 12uA / ^{0}C
Open wire	Fault transparency for open wire
Ambient Conditions	
Ambient temperature (operation)	-40 degree C to + 70 degree C
Ambient temperature (storage/transport)	-40 degree C to + 85 degree C
Permissible humidity (operation)	5 % - 95 % (non-condensing)
Mechanical	
Vibration	Non-Operational 1g 10Hz to 150Hz, Operational 0.5g 10Hz to 150Hz.

Parameter	Specification
Shock	15g Non-Operational, 5g operational.
Compliance	
Ingress protection	IP20 as per IEC 60529
Flammability rating	V0 as per UL 94
HAZLOC Conformance	ANSI/ISA 60079-0; 60079-15, 60079-11, 60079-7
EMC directive	2014/30/EU (IEC 61326-1 2021)
ATEX	Ex ec [ia Ga] IIC T4 Gc
IEC Ex	Ex ec [ia Ga] IIC T4 Gc
USA/Canada	Class I Division 2, Group A, B, C, D, T4 Ex ec [ia Ga] IIC T4 Gc Ex nA [ia Ga] IIC T4 Gc Class I, Zone 2 AEx ec [ia Ga] IIC T4 Gc Class I, Zone 2 AEx nA [ia Ga] IIC T4 Gc
Compliance	RoHS

2.3 Label



2.4 IO modules supported

	IO module	IOTA	IO type	Description
1	CC-PAON01	CC-TAON01, CC-TAON11 DC-TAOX51, DC-TAOX61	AO	Analog Output with non-HART
2	CC-PAOX01	CC-TAOX01, CC-TAOX11	AO	Analog Output with non-HART
3	CC-PAOH01	CC-TAOX01, CC-TAOX11 DC-TAOX01, DC-TAOX11	AO-HART	Analog Output with HART
4	CC-PAOH51	DC-TAOX51, DC-TAOX61	AO-HART	Analog Output with HART
5	CC-PUIO31	CC-TUIO31, CC-TUIO41 DC-TUIO31, DC-TUIO41	UIO-2	Universal input output

2.5 Entity parameters

Parameter	Specification
Maximum Safe Voltage (Um)	250V
Uo	25.2 V
Io	113.1 mA
Po	712.7 mW

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