

Honeywell 900U01-0100 Manual

Brand	Honeywell
Product Series	Honeywell
Product Type	Current (2, 3, or 4 wire devices), with HART Support

Description

Universal Input/output Module (900U01-0100)

Universal IO channel can be soft configured as AI with HART, AO with HART, DI or DO.

Item Specification

Channels 16 (Isolate to rack)

Galvanic Isolation 1kV AC between logic and field

24V Field Supply Voltage

24V DC(Typical)

22V DC(Min)

27V DC(Max)

Load Max 4.2 Amps per module

500 mA per channel

Analog Input

Item Specification

www.AutoDCSTech.com

Input type Current (2, 3, or 4 wire devices), with HART Support

Input Channels 16 Maximum per module

(with or without open wire detect)

A/D Converter Resolution 16 Bit

Input Range 0-20 mA or 4-20 mA

Crosstalk, dc to 60 Hz (channel-tochannel) 58dB

Input Impedance 250 Ω nominal

Maximum Input Voltage (any input

referenced to common, no damage) 0 - 30V

Hardware accuracy 0.1% of full-scale ($23.5 \pm 2^{\circ}\text{C}$)

0.25% of full-scale (0 to $+60^{\circ}\text{C}$)

Transmitter Field Power Conditioning Current limited to 24 mA

Input Filter First-order low-pass 100Hz

Max HART Multi-drop Connection One device per channel

Item Specification

Output Type

4-20 mA current loop &

0-20 mA Current loop

with HART Support

Output Channels 6 Maximum per module1

(with or without open wire detect)

Output Ripple ≤ 125 mV peak-to-peak at power line frequency, across 250 Ohm load

Output Temperature Drift 0.5 % of FSR

Output Current Linearity $< 0.05\%$

Resolution 12 Bit

Calibrated Accuracy $< 0.5\%$ of Full Scale (25°C) including linearity

Directly Settable Output Current Range 0 mA to 23 mA

Maximum Resistive Load 500 Ohms

Minimum Resistive Load 100 Ohms

Maximum Output Compliant Voltage

(24 V supply = 22 VDC through 28 VDC) 14 VDC

Maximum Open Circuit Voltage 24 VDC

Fail Safe value configuration

Yes

Hold Last Value

Failsafe Value

Max HART Multi-drop Connection One device per channel

Note:

1. Connecting greater than 100 ohms resistance load will increase maximum AO channel number per UIO module. Please refer to the User's guide to determine channel usage in different scenarios.

Digital Input with Open Wire Detect

Item Specification

Open Voltage 24V

Short Circuit Current 7 mA

Open Contact 15 k Ω > 0.1 W

Closed Contact 5 k Ω > 0.25 W

Short circuit detection: $I > 6\text{mA} \pm 5\%$

Closed contact detection: $2.8\text{mA} < I < 6\text{mA} \pm 5\%$

Lead Breakage Detection $I < 0.9\text{mA} \pm 5\%$

Input filter First-order low-pass 100Hz

Digital Input without Open Wire Detect

Item Specification

Open Voltage 24V

Closed contact current

7 mA $\pm$ 5%, after open state detection

3.5 mA $\pm$ 5%, after closed state detection

Closed contact detection $I > 2.81\text{mA}$

Open contact detection $I < 1.8\text{mA}$

Input filter First-order low-pass 100Hz

Item Specification

Output Channels 16 Maximum per module (with or without open wire detect)

Output Type Solid state source, short circuit proof

Load Current 0mA Minimum to 0.5A Maximum per channel 1

4.2 A Maximum per module

On-State Voltage 24 V (typical), load current @ 0.5A

Off-State Voltage 0 VDC

Off-State Leak Current < 0.1 mA

Fail Safe State configuration

Yes

Hold Last State

Failsafe State

Note:

1. A Universal IO Channel configured for Digital Output can incorrectly report Line Monitoring failures if the load current is less than 10mA. Applications using such light loads need to disable Line Monitoring for those channels to avoid nuisance alarms

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