

8C-TAOX61

Redundant AO IOTA

Honeywell 8C-TAOX61 is the coated redundant IOTA for a sixteen-channel Series 8 analog output module. With 8C-PAON01 it delivers 4-20 mA commands while supporting controlled redundancy, per-channel safe-state behavior and open-wire detection.

BRAND	Honeywell	MODEL	8C-TAOX61
PRODUCT	Redundant AO IOTA	FAMILY	Series 8 I/O
OFFICIAL SOURCE	PlantCruise by Experion Series 8 I/O Specification	RECORD	PC03-490-100, Release 100, October 2011, section 2.4 Analog Output

DOCUMENT SCOPE

Official technical evidence, controlled engineering checks, model-specific FAQ and related product navigation.

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Product Overview and Applications

SYSTEM FUNCTION

Honeywell 8C-TAOX61 is the coated redundant IOTA for a sixteen-channel Series 8 analog output module. With 8C-PAON01 it delivers 4-20 mA commands while supporting controlled redundancy, per-channel safe-state behavior and open-wire detection.

FUNCTION 1

Sixteen 4-20 mA output channels

FUNCTION 2

Coated redundant IOTA

FUNCTION 3

Per-channel FAILOPT safe-state control

FUNCTION 4

Controlled redundancy switchover

APPLICATION	ENGINEERING CONTEXT
Redundant valve command	Delivers documented 4-20 mA commands to approved valve positioners through paired Series 8 output paths.
High-availability actuator control	Maintains sixteen analog output channels in the documented redundant arrangement.
Configured safe-state action	Applies the recorded HOLD LAST VALUE or SHED to SAFE VALUE behavior for each enabled channel.
Controlled output transfer	Supports redundancy switchover with the documented maximum output gap while final-element response is monitored.

Technical Data and Acceptance

PARAMETER	VERIFIED VALUE
Complete model	8C-TAOX61
Honeywell item number	51306981-175
IOTA role	Coated redundant analog output termination assembly
Compatible I/O module	8C-PAON01
Output type	4-20 mA
Output channels	16
Output ripple	100 mV peak-to-peak at line frequency across 250 ohms
Resolution	+/-0.05% of full scale
Calibrated accuracy	+/-0.35% of full scale at 25 degrees C, including linearity
Directly settable current	0 mA or 2.9-21.1 mA
Maximum open-circuit voltage	22 V
Response time	Settles within 1% of final value within 80 ms
Redundancy switchover gap	10 ms maximum at 0 mA
Safe-state behavior	Per-channel HOLD LAST VALUE or SHED to SAFE VALUE
Open-wire detection	Channel Soft Failure indication

Acceptance Path

1 IDENTITY

Exact 8C-TAOX61 and 8C-PAON01 pairing match the engineering record.

2 CONFIGURATION

All output assignments, scaling and FAILOPT values are restored.

3 OUTPUT CHECK

Each commanded current and final-element response meets its approved record.

4 SYSTEM PROOF

Both paths and a controlled switchover pass.

Precautions and Model-Specific FAQ

NO.	PRECAUTION	QUESTION	ANSWER
1	Verify the complete 8C-TAOX61 and 51306981-175 marking before work.	Which module is paired with Honeywell 8C-TAOX61?	Honeywell specifies 8C-TAOX61 as the coated redundant IOTA for the 8C-PAON01 analog output module.
2	Confirm both analog output paths use the documented Honeywell 8C-PAON01 hardware.		
3	Place final elements and both redundant paths in approved safe states.	How many outputs does Honeywell 8C-TAOX61 terminate?	The documented arrangement supports sixteen analog output channels.
4	Record all sixteen output assignments, scaling values and paired path identities	Which output range is used by Honeywell 8C-TAOX61?	The official specification lists 4-20 mA output, with direct setting at 0 mA or from 2.9 to 21.1 mA.
5	Record the FAILOPT choice and configured safe value for every enabled channel.		
6	Label output, common, shield and grounding conductors before removal.	What redundancy transfer limit is documented for Honeywell 8C-TAOX61?	The specification lists a maximum 10 ms output-to-field gap at 0 mA during switchover.
7	Use approved ESD controls and inspect both IOTA and module interfaces.		
8	Verify each output, diagnostic indication and controlled redundancy switchover before release.		

FAQ, Related Products and Sources

QUESTION	ANSWER
Which FAILOPT actions are available for Honeywell 8C-TAOX61?	Each channel can HOLD LAST VALUE or SHED to a configured SAFE VALUE.
How does Honeywell 8C-TAOX61 identify an open field wire?	The Series 8 function reports the condition with a Channel Soft Failure indication.
What must be recorded before replacing Honeywell 8C-TAOX61?	Record both redundant paths, all output assignments, scaling, FAILOPT settings, safe values and field wiring.
How is Honeywell 8C-TAOX61 commissioning accepted?	Both paths must be healthy, all commanded outputs and safe-state actions must pass, and a controlled switchover must meet the approved response criteria.

MANUFACTURER SOURCE RECORDS

PlantCruise by Experion Series 8 I/O Specification - PC03-490-100, Release 100, October 2011, section 2.4 Analog Output
Series 8 Controller and I/O Specification - S803-150-530, Version 1.0, May 2024, Series 8 architecture and I/O overview

Related Products on Apter Power

MODEL	APTER POWER PAGE
Honeywell MU-KFTA05-51201420-005	View Honeywell MU-KFTA05-51201420-005
Honeywell MU-PLAM02-51304362-100	View Honeywell MU-PLAM02-51304362-100
Honeywell MU-TAIH02-51304453-100	View Honeywell MU-TAIH02-51304453-100
Honeywell MU-TAMR03-51309218-125	View Honeywell MU-TAMR03-51309218-125
Honeywell MU-TAMT03	View Honeywell MU-TAMT03
Honeywell MU-TAOX02	View Honeywell MU-TAOX02
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