

INDUSTRIAL AUTOMATION PRODUCT

8C-PAOHA1

Series 8 Analog Output Module with HART

Honeywell 8C-PAOHA1 is a coated Series 8 sixteen-channel analog output module with HART. It drives field current loops and carries HART communication for Experion control strategies.

IDENTITY	VERIFIED VALUE
Manufacturer	Honeywell
System family	Experion Series 8 I/O
Part number	51454469-275
Country	USA
HS code	8537101190

APTER POWER SALES TEAM

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Technical Specifications

Technical values below are limited to the named Honeywell product record.

PARAMETER	VALUE
Output channels	16
Output signal	4 to 20 mA
Load resistance	50 to 800 Ohm
Module supply	24 Vdc
Module current	205 mA
Output resolution	+/-0.05% FS
Calibrated accuracy	+/-0.2% FS at 25 degC
Current linearity	+/-0.05% FS nominal
Output temperature drift	0.005% FS/degC
Output ripple	Less than 100 mV peak-to-peak across 250 Ohm

PARAMETER	VALUE
Directly settable current	2.9 to 21.1 mA
Maximum open-circuit voltage	22 V
Response time	Within 1% in 80 ms
Redundancy switchover gap	10 ms maximum
Operating temperature	0 to 60 degC
Storage temperature	-40 to +85 degC
Nonredundant IOTA	8C-TAOXA1; 6 inch
Redundant IOTA	8C-TAOXB1; 12 inch
Hot removal and insertion	Supported

VERIFIED PRODUCT RECORD

DATA GROUP	VERIFIED VALUE
Installed host / carrier	8C-TAOXA1 nonredundant IOTA
Companion hardware	8C-TAOXB1 redundant IOTA
Field connection	24 Vdc Series 8 cabinet supply
Primary system function	Generates sixteen controlled analog current outputs
Controlled acceptance duty	Control-valve positioning with HART diagnostics

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System Role and Architecture

Honeywell 8C-PAOHA1 is a coated Series 8 sixteen-channel analog output module with HART. It drives field current loops and carries HART communication for Experion control strategies.

FUNCTION 1

Generates sixteen controlled analog current outputs

FUNCTION 2

Supports HART communication on configured field loops

FUNCTION 3

Operates with nonredundant or redundant Series 8 output IOTAs

FUNCTION 4

Maintains commanded output behavior through controller and I/O diagnostics

Matched system components

- 8C-TAOXA1 nonredundant IOTA
- 8C-TAOXB1 redundant IOTA
- 24 Vdc Series 8 cabinet supply
- 4-20 mA HART field devices

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Installed host / carrier	8C-TAOXA1 nonredundant IOTA
Companion hardware	8C-TAOXB1 redundant IOTA
Field connection	24 Vdc Series 8 cabinet supply
Primary system function	Generates sixteen controlled analog current outputs
Controlled acceptance duty	Control-valve positioning with HART diagnostics

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Applications and Engineering Context

Control-valve positioning with HART diagnostics

Generates sixteen controlled analog current outputs

Analog setpoint delivery to package equipment

Supports HART communication on configured field loops

Redundant critical-process output loops

Operates with nonredundant or redundant Series 8 output IOTAs

Field-device commissioning from Experion

Maintains commanded output behavior through controller and I/O diagnostics

TECHNICAL NOTE

Match 8C-PAOHA1 to the installed IOTA execution, preserve loop polarity and channel assignment, then prove commanded current, HART communication and redundancy behavior under controlled conditions.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	8C-PAOHA1 / 51454469-275 recorded
Physical interface	8C-TAOXA1 nonredundant IOTA
Companion check	8C-TAOXB1 redundant IOTA
Functional proof	Generates sixteen controlled analog current outputs
Application test	Control-valve positioning with HART diagnostics

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Engineering Precautions

- 1
- Verify 8C-PAOHA1 and part 51454469-275 on the physical label before work.
- 2
- Isolate the affected process outputs and document their safe states before module removal.
- 3
- Confirm whether the installed IOTA is the nonredundant or redundant execution.
- 4
- Keep output-loop polarity and shield termination unchanged during replacement.
- 5
- Use ESD controls and protect module and IOTA connectors from contamination.

RELATED PRODUCTS ON APTER POWER

MODEL	SYSTEM ROLE	APTER POWER PAGE
8C-PAON01	Series 8 analog-output module	Open product page
CC-PAOH01	Series C analog-output module with HART	Open product page
8C-TDODB1	Series 8 redundant digital-output IOTA	Open product page
CC-MCAR01	Experion Series C carrier assembly	Open product page

MANUFACTURER SOURCE RECORD

Series 8 Controller and I/O Specification
S803-150-530, May 2024

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