

INDUSTRIAL AUTOMATION PRODUCT

8C-TAIM01

LL Mux IOTA

Honeywell 8C-TAIM01 is the coated IOTA for the Series 8 low-level input multiplexer. With 8C-PAIM01 and the documented FTA, it supports isolated thermocouple or RTD acquisition across 64 channels.

IDENTITY	VERIFIED VALUE
Manufacturer	Honeywell
Complete model	8C-TAIM01
Product role	LL Mux IOTA
System family	Series 8 I/O
Source record	PC03-490-100, Release 100, October 2011, sections 2.1 and detailed specifications

DOCUMENT SCOPE

Model identity, official technical data, model-specific applications, precautions, FAQ and controlled acceptance records.

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8C-TAIM01

Technical Specifications

PARAMETER	VERIFIED VALUE
Complete model	8C-TAIM01
Honeywell item number	51306999-175
IOTA role	Coated low-level multiplexer termination assembly
Compatible I/O module	8C-PAIM01
Compatible FTAs	MC-TAMT04 thermocouple and MC-TAMR04 RTD
Input types	Thermocouple and/or RTD
Input channels	64 fully isolated channels in sixteen-channel increments
Input scan rate	1 second fixed; up to 64 channels per second
Channel bandwidth	0 to 4.7 Hz at -3 dB
Thermocouple nominal range	-20 to +100 mV
Gain error	0.050% full scale maximum
Input impedance	1 Mohm at dc for thermocouple inputs
Common-mode rejection	120 dB minimum at 50 or 60 Hz
Normal-mode rejection	60 dB minimum at 50 or 60 Hz
RTD excitation	1 mA
Cold-junction compensation	-20 to +60 degrees C, +/-0.5 degrees C typical

ENGINEERING BOUNDARY

Verify the 8C-PAIM01 module, selected thermocouple or RTD FTA, sixteen-channel group allocation and line-frequency setting. Preserve sensor type, lead compensation, cold-junction configuration and isolation boundaries during replacement.

System Role and Common Applications

Honeywell 8C-TAIM01 is the coated IOTA for the Series 8 low-level input multiplexer. With 8C-PAIM01 and the documented FTA, it supports isolated thermocouple or RTD acquisition across 64 channels.

FUNCTION 1
Sixty-four isolated low-level input channels

FUNCTION 2
Thermocouple and RTD field measurement

FUNCTION 3
Sixteen-channel FTA grouping

FUNCTION 4
Open-thermocouple detection support

APPLICATION	ENGINEERING CONTEXT
Thermocouple measurement	Connects approved thermocouple groups through the MC-TAMT04 FTA for low-level process-temperature acquisition.
RTD measurement	Connects approved RTD groups through the MC-TAMR04 FTA with the documented sensor excitation.
High-channel temperature monitoring	Concentrates up to sixty-four fully isolated temperature inputs for the Series 8 low-level multiplexer.
Mixed sensor cabinet	Supports documented thermocouple and RTD groups when FTA type, sensor map and channel configuration are controlled.

ACCEPTANCE DUTY
Confirm identity, interface, companion hardware, configured values and controlled functional response before release.

Engineering Precautions and FAQ

NO.	PRECAUTION
1	Verify the complete 8C-TAIM01 and 51306999-175 marking before work.
2	Confirm the companion low-level multiplexer module is Honeywell 8C-PAIM01.
3	Identify every MC-TAMT04 thermocouple and MC-TAMR04 RTD FTA connection.
4	Record all sixty-four channel assignments in their sixteen-channel groups.
5	Preserve sensor type, polarity, lead compensation, shielding and isolation boundaries.
6	Confirm the configured 50 Hz or 60 Hz line-frequency integration setting.
7	Use approved ESD controls and inspect IOTA, module and FTA interfaces before seating hardware.
8	Verify cold-junction compensation, open-sensor diagnostics and all enabled channels before release.

QUESTION	ANSWER
Which I/O module is paired with Honeywell 8C-TAIM01?	Honeywell specifies 8C-TAIM01 as the coated IOTA for the 8C-PAIM01 low-level multiplexer module.
How many channels are supported by Honeywell 8C-TAIM01?	The documented arrangement supports sixty-four fully isolated input channels in sixteen-channel increments.
Which sensors can Honeywell 8C-TAIM01 receive?	It supports thermocouple and/or RTD inputs through the documented low-level multiplexer arrangement.
Which FTAs are used with Honeywell 8C-TAIM01?	Honeywell lists MC-TAMT04 for thermocouples and MC-TAMR04 for RTDs.

FAQ, Related Products and Official Sources

QUESTION	ANSWER
What scan rate applies to Honeywell 8C-TAIM01?	The official specification states a fixed one-second scan, up to sixty-four channels per second.
What line-frequency setting is available for Honeywell 8C-TAIM01?	The low-level multiplexer provides a fixed selectable 50 Hz or 60 Hz line-frequency integration setting.
How does Honeywell 8C-TAIM01 handle an open thermocouple?	Each conversion is qualified by the documented open-thermocouple detection thresholds in the Honeywell specification.
What proves Honeywell 8C-TAIM01 commissioning is complete?	The module, IOTA and FTA identities must match, all channel and sensor assignments must be restored, and cold-junction, open-sensor and functional checks must pass.

MODEL	APTER POWER PAGE
Honeywell CC-PAIL51	View Honeywell CC-PAIL51
Honeywell CC-PAIM01	View Honeywell CC-PAIM01
Honeywell CC-PAIX02	View Honeywell CC-PAIX02
Honeywell CC-PAOH01	View Honeywell CC-PAOH01
Honeywell CC-PCF901	View Honeywell CC-PCF901
Honeywell CC-PCNT01-51405046-175	View Honeywell CC-PCNT01-51405046-175
Honeywell CC-PDIH01	View Honeywell CC-PDIH01
Honeywell CC-PDOB01-51405043-175	View Honeywell CC-PDOB01-51405043-175

MANUFACTURER SOURCE RECORDS

PlantCruise by Experion Series 8 I/O Specification - PC03-490-100, Release 100, October 2011, sections 2.1 and detailed specifications
Series 8 Controller and I/O Specification - S803-150-530, Version 1.0, May 2024, Series 8 architecture and I/O overview

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