01 / Identity and job scope

HONEYWELL

51304386-150 MC-PPIX02

Pulse input processor

Product role

Honeywell 51304386-150 MC-PPIX02 is an eight-channel conformally coated pulse-input processor for a matched Process Manager I/O and field-termination arrangement.

Field sensor
Pulse / contact signal

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Matched FTA
Signal and power arrangement

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MC-PPIX02
Rate and accumulated value

Applicability

Part 51304386-150 identifies MC-PPIX02. The stated pulse-input ratings describe the paired processor/FTA design; the MC variant adds conformal coating. Waveform, filter and cable conditions remain applicable.

Hardware and configuration

MC-PPIX02 is the conformally coated pulse-input processor identified by part 51304386-150. The pulse-input arrangement accepts self-powered two-wire or system-powered three-wire sensors, using the appropriate field termination. It supports pulse-voltage or contact inputs and performs engineering-unit conversion, alarm checking and input conditioning within the configured Process Manager system.

Planning basis

This Apter Power guide supports identification and engineering planning. Apply the complete manufacturer and machine-builder procedures for the actual installation.

02 / Configuration and interface readiness

Item	Configuration relationship
Channels	8
Coating	Conformal-coated MC design
Signal forms	Rectangular or sine wave; pulse voltage or contact
Sensor arrangement	Self-powered 2-wire or system-powered 3-wire
Input impedance	10 kohm minimum
Frequency range	1 Hz–20 kHz; waveform, filter and cable conditions apply
Low input level	-0.5 to +1.9 V

Technical context

The design has eight inputs with at least 10 kohm input impedance. Its specified range extends from 1 Hz to 20 kHz under the stated waveform, amplitude, filter and cable conditions. Square-wave low and high levels are -0.5 to +1.9 V and +3.5 to +24 V respectively. Sine waves must not be mixed with square waves or contacts on the same FTA; mixed amplitudes and longer FTA cables reduce the permitted maximum frequency.

What conditions limit the frequency range of 51304386-150 MC-PPIX02?

The 1 Hz to 20 kHz range depends on waveform, amplitude, filter setting and FTA cable length. Mixed-amplitude signals over a 50 m FTA cable are limited to 9 kHz in the specified arrangement.

Can sine waves and contacts be mixed on the FTA used with 51304386-150 MC-PPIX02?

No. Sine waves must not be intermixed with square waves or contacts on the same FTA.

03 / Installation and connection decisions

Match coated identity

Retain 51304386-150 MC-PPIX02 and the installed processor/FTA configuration.

Keep waveform groups compatible

Do not mix sine-wave inputs with square waves or contacts on the same FTA.

Apply cable-dependent limits

Check FTA cable length and signal amplitude before applying the 20 kHz upper range.

Record filter positions

Preserve the installed filter selection and corresponding minimum dwell requirement.

Installation context

Field-input and accumulated-value updates are 20 ms, while the process-variable update is 500 ms for eight channels. Rate accuracy is the larger of ±0.01% of input frequency or ±0.4 Hz, with ±0.4 Hz resolution. Minimum dwell depends on the filter selection: 25 microseconds at 20 kHz in storage position, 50 microseconds at 10 kHz in H, and 500 microseconds at 1 kHz in L. Preserve the installed filter, FTA, transmitter-power and cable configuration.

Which pulse levels apply to the design of 51304386-150 MC-PPIX02?

The specified low range is -0.5 to +1.9 V and the high range is +3.5 to +24 V; hysteresis separates the switching bands.

What update rates apply to 51304386-150 MC-PPIX02?

Field-input and accumulated-value updates are 20 ms. The process-variable update is 500 ms for eight channels.

04 / Functional acceptance planning

Application	Controlled review
Pulse rate measurement	Acquire supported pulse signals within the waveform, amplitude, cable and filter limits.
Accumulated-value processing	Use the 20 ms accumulated-value update in the configured totalizer application.
Contact sensing	Use the appropriate contact-input FTA configuration and verify its electrical conditions.
Conditioned transmitter integration	Match two-wire or three-wire sensing and the FTA power arrangement before applying field signals.

What rate accuracy applies to 51304386-150 MC-PPIX02?

Use ±0.01% of input frequency or ±0.4 Hz, whichever is larger. The stated rate resolution is ±0.4 Hz.

How does filter selection affect dwell requirements for 51304386-150 MC-PPIX02?

Minimum on/off dwell is 25 microseconds at 20 kHz with the filter jumper stored, 50 microseconds at 10 kHz in H, or 500 microseconds at 1 kHz in L.

Release boundary

Use controlled signals to verify channel rate, accumulated value and configured alarms.

Record
Keep the original configuration

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Test
Observe controlled response

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Release
Authorize normal operation

05 / Technical handover and support

Retained information

Keep the complete 51304386-150 MC-PPIX02 marking, host identity, connection photographs, configuration backup and controlled-test results in the service record.

Support planning

Confirm current support and replacement guidance with Honeywell for the installed identity and configuration. Apter Power availability and dispatch are separate quotation matters.

Reference basis

Honeywell TPS Process Manager I/O Specification and Technical Data, IO03-500, November 1997; HPM Planning, HP02-500, Release 530 Revision 05.

Apter Power technical summary. Apply the original instructions for the actual installation.

Related industrial automation products

Navigation only; no substitution or compatibility claim.

Honeywell K2LCN-4 51402615-400

Honeywell K2LCN-8 51401551-801

Honeywell 51401946-100

Discuss your installed configuration

Send the full unit marking and connection details.

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