Metso IOP301

Installation & Commissioning Guide

01 Job scope and safe-work boundary

Metso IOP301 is a 16-channel isolated analog-input module for the maxPAC Model IOP system. Each channel can be configured for current or voltage input, with field or system loop supply as applicable.

Offered marking	Metso IOP301
Installed host or system	maxPAC Model IOP / DPU4
Included-item check	Confirm the IOP301 module, connector condition and any fitted program resistors; field shunts and IOP306 kit are separate unless quoted.
Pre-work identity	Confirm IOP301 on the module and retain its DPU mode, jumper map and channel wiring; IOP302 is a different common-input module.

Work boundary

Set W6 for DPU4E or DPU4A/B and confirm the corresponding address use.

02 Readiness checks

Check	Required evidence
Check DPU mode	Set W6 for DPU4E or DPU4A/B and confirm the corresponding address use.
Check mains filter	Set W1 for the applicable 50 or 60 Hz environment.
Set channel jumpers	Apply A-E input-type jumper positions for each selected signal form.
Protect loop supply	Check the system or field supply and independently fuse redundant transmitter feeds.
Inspect shunts	Use the documented external 100-ohm shunts for redundant common-transmitter wiring.
Review diagnostics	After power-up, confirm Active indication and resolve any coded A/D or calibration fault.

Configuration hold point

Choose the DPU4E or DPU4A/B address mode and configure each current or voltage channel before connecting field transmitters.

03 Fit and reconnect

Stage	Action	Record / hold point
01 Confirm	Confirm IOP301 on the module and retain its DPU mode, jumper map and channel wiring; IOP302 is a different common-input module.	Full label and installed-system reference recorded
02 Isolate	Set W6 for DPU4E or DPU4A/B and confirm the corresponding address use.	Site isolation confirmed before handling
03 Match	Set W1 for the applicable 50 or 60 Hz environment.	Interface and configuration match confirmed
04 Connect	Apply A-E input-type jumper positions for each selected signal form.	Conductor or connector map checked
05 Restore	Check the system or field supply and independently fuse redundant transmitter feeds.	System limits and protection reviewed

Variant boundary

The original chapter identifies IOP301 and separately specifies its channel, jumper, diagnostic and electrical behavior.

04 Commissioning acceptance

Verification	Expected observation	If different
Identity	IOP301 remains the complete installed reference	Stop and reconcile the marking
Physical fit	Use the documented external 100-ohm shunts for redundant common-transmitter wiring.	Recheck connector, terminal or panel
Functional proof	After power-up, confirm Active indication and resolve any coded A/D or calibration fault.	Trace the affected circuit or status
System record	maxPAC Model IOP / DPU4 configuration matches the installation	Restore the recorded configuration

Recorded evidence

Retain the full marking, applicable system configuration, field check and observed result with the maintenance record.

05 Fault response and handover

Question	Review path
How is Metso IOP301 isolated?	The guide lists 1500 V AC field-to-logic isolation and 500 V AC between channels.
What does a blinking Active LED indicate on Metso IOP301?	Blink patterns encode detected faults, including A/D communication and self-calibration errors; compare the pattern with the guide.
How are redundant Metso IOP301 inputs wired to one transmitter?	Configure the inputs for voltage with external 100-ohm shunts and separately fuse the 24 V feed as specified for the shared-transmitter circuit.

Handover

Confirm the IOP301 module, connector condition and any fitted program resistors; field shunts and IOP306 kit are separate unless quoted.

Technical source

Metso Automation MAX Controls maxPAC Hardware Reference Guide, 277596

Discuss the complete reference

Metso IOP301

sales13@apterpower.com | +86 18030235313