

INDUSTRIAL AUTOMATION PRODUCT

IOP301

IOP301 Isolated Analog Input Module

METSO IOP301 is a 16-channel isolated analog input module for the maxPAC and maxDNA Model IOP architecture. It accepts documented current or voltage field inputs with isolation between the field side and logic.

CONTROLLED ENGINEERING COPY

IDENTITY	VERIFIED VALUE
Manufacturer	METSO
System family	Metso maxPAC Model IOP I/O
Part number	IOP301
Document status	Controlled product and system reference

DOCUMENT SCOPE

Exact article identity, official technical data, host matching, installation checks, applications, precautions and controlled acceptance evidence.

MODEL-SPECIFIC ENGINEERING NOTE

Install IOP301 only in the documented Metso maxPAC Model IOP I/O position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and isolated acquisition of sixteen current or voltage process signals before service release.

System Role and Architecture

METSO IOP301 is a 16-channel isolated analog input module for the maxPAC and maxDNA Model IOP architecture. It accepts documented current or voltage field inputs with isolation between the field side and logic.

FUNCTION 1
Sixteen isolated analog input channels

FUNCTION 2
Accepts documented current or voltage inputs

FUNCTION 3
Field-to-logic optical isolation

FUNCTION 4
100 ms input scanning

RELATED APTER POWER PAGES		
1	Siemens 6SL3210-1PE21-8AL0	2
2	Siemens 6SL3210-1PE21-1AL0	3
3	Siemens C98043-A7005-L1-6RY1704-0AA00	4
4	Siemens 6SL3246-0BA22-1PA0-V-4-7	5
5	Siemens C98043-A7042-L1-6	6
6	Siemens 6SL3310-1GE35-0AA3	7
7	Siemens 6SL3210-1PE31-8AL0	8
8	Siemens 6SL3224-0BE31-1UA0	9
9	Siemens 6SE7033-5GJ84-1JC0	

MATCHED SYSTEM COMPONENTS

NO.	DOCUMENTED COMPONENT / ROLE
01	Metso maxPAC Model IOP I/O
02	Matched Metso maxPAC Model IOP I/O host and interfaces
03	Documented power, signal, communication and grounding connections
04	Approved configuration, diagnostics and acceptance record

SYSTEM INTEGRATION RECORD

INTEGRATION ITEM	DOCUMENTED ROLE
Host identity	Metso maxPAC Model IOP I/O
Interface role	isolated acquisition of sixteen current or voltage process signals
Field / power context	documented Metso maxPAC Model IOP I/O installed position
Commissioning evidence	Identity, wiring, configuration, diagnostics and controlled response recorded

INSTALLATION AND CONNECTION CHECKS

- 1

Confirm IOP301 and the 69230 I301A assembly identity.
- 2

Place the maxDNA process and affected loops in the approved maintenance state.
- 3

Record all sixteen channel types, ranges, wiring and redundancy assignments.
- 4

Isolate backplane and field-loop power before removing the module.

Technical Specifications

Technical values below are limited to the named product record and directly applicable manufacturer documentation.

PARAMETER	VALUE	PARAMETER	VALUE
Product type	Isolated analog input module	Channel grouping	Optical isolation between each pair of channels
I/O system	Metso maxPAC Model IOP	System loop supply	24 V available from the backplane for supported
Module type	IOP301	Current-input arrangement	Supports external shunt configuration
Referenced assembly number	69230 I301A	Voltage-input arrangement	Channel configured for voltage input when the documented
Channels	16 analog inputs	Redundant application	Two modules may share a documented two-wire or
Supported signal forms	Current or voltage input	Related shunt kit	IOP306 supplies resistor and thermistor pairs for
Conversion accuracy	15-bit plus sign bit	Backplane interface	Model IOP I/O bus
Scanning time	100 ms	Input processing	Multiplexed A/D conversion
Isolation	Field-to-logic optical isolation	Configuration retention	Record channel type, range, wiring and redundancy before

RELATED PRODUCT PAGES

1Siemens 6SL3210-1PE21-8AL0

2Siemens 6SL3210-1PE21-1AL0

3Siemens C98043-A7005-L1-6RY1704-0AA00

4Siemens 6SL3246-0BA22-1PA0-V-4-7

5Siemens C98043-A7042-L1-6

6Siemens 6SL3310-1GE35-0AA3

7Siemens 6SL3210-1PE31-8AL0

8Siemens 6SL3224-0BE31-1UA0

9Siemens 6SE7033-5GJ84-1JC0

ENGINEERING BOUNDARY

Confirm IOP301, its exact Metso maxPAC Model IOP I/O role, installed position, power, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

PRE-INSTALLATION CHECKS

- 1

Confirm IOP301 and the 69230 I301A assembly identity.
- 2

Place the maxDNA process and affected loops in the approved maintenance state.
- 3

Record all sixteen channel types, ranges, wiring and redundancy assignments.
- 4

Isolate backplane and field-loop power before removing the module.

Applications and Engineering Context

Isolated process analog measurement

Acquires sixteen documented current or voltage field signals for maxDNA control.

Two-wire transmitter input

Supports the documented backplane-powered transmitter circuit and external shunt arrangement.

Four-wire transmitter input

Accepts separately powered field transmitters using the documented terminal arrangement.

Redundant analog input

Supports paired IOP301 modules sharing a transmitter when wired per the maxPAC guide.

TECHNICAL NOTE

Install IOP301 only in the documented Metso maxPAC Model IOP I/O position and preserve its exact wiring, interfaces and configuration. After controlled energization, verify diagnostics and isolated acquisition of sixteen current or voltage process signals before service release.

MODEL-SPECIFIC ACCEPTANCE EVIDENCE

CHECK	ACCEPTANCE CONDITION
Identity	IOP301 recorded
Host / carrier	Metso maxPAC Model IOP I/O
Physical interface	Installed terminals, ports and signals matched to the as-found record
Configuration	Approved host and channel configuration restored
Functional proof	Controlled test confirms isolated acquisition of sixteen current or voltage process signals

IMPORTANT NOTICE

Confirm IOP301, its exact Metso maxPAC Model IOP I/O role, installed position, power, interfaces, configuration, diagnostics and controlled acceptance evidence before release.

Related Products and Source Record

Brand-qualified Apter Power navigation links are provided for system planning only; manufacturer evidence remains the named source record.

RELATED PRODUCTS ON APTER POWER

1

Siemens 6SL3210-1PE21-8AL0

View Siemens 6SL3210-1PE21-8AL0 page

2

Siemens 6SL3210-1PE21-1AL0

View Siemens 6SL3210-1PE21-1AL0 page

3

Siemens C98043-A7005-L1-6RY1704-0AA00

View Siemens C98043-A7005-L1-6RY1704-0AA00 page

4

Siemens 6SL3246-0BA22-1PA0-V-4-7

View Siemens 6SL3246-0BA22-1PA0-V-4-7 page

5

Siemens C98043-A7042-L1-6

View Siemens C98043-A7042-L1-6 page

6

Siemens 6SL3310-1GE35-0AA3

View Siemens 6SL3310-1GE35-0AA3 page

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Siemens 6SL3210-1PE31-8AL0

View Siemens 6SL3210-1PE31-8AL0 page

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Siemens 6SL3224-0BE31-1UA0

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Siemens 6SE7033-5GJ84-1JC0

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MANUFACTURER SOURCE RECORD

Metso Automation maxPAC Hardware Reference Guide 278596 and user-authorized maxDNA overview | User-authorized Scribd references for exact IOP301 data

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RECOMMENDATION SCOPE

These links support product navigation and comparison. Technical values in this document are sourced only from the manufacturer record above.