Yokogawa ADV151-P00 S2

32-Channel 24 V DC Digital Input Module

01 / THIRTY-TWO-CHANNEL DIGITAL INPUT ROLE

Yokogawa ADV151-P00 S2 receives thirty-two isolated 24 V DC ON/OFF field states. The channels are arranged as two common groups and can be applied in an approved dual-redundant FIO configuration.

24 V DC field contacts → **ADV151 input processing** → **FIO node and control logic**

Thirty-two input points

One module brings two groups of sixteen discrete field states into the system.

Sink or source signaling

The documented rated input is 24 V DC sink/source, subject to the common-polarity rule.

Isolated system boundary

Input signals are isolated from the system side; this is not a claim of channel-to-channel isolation.

Redundant application support

The ADV151 family supports dual-redundant configuration in compatible FIO hardware.

Identity boundary

P00 S2 is retained exactly from the requested component identity. It is not decoded from the later P5x ordering table.

Evidence to retain	ADV151-P00 S2 tag
Installed location	Node, slot and redundant partner
Field evidence	Inputs 1-32, commons and polarity
Connection evidence	Terminal block or adapter/cable path

Module boundary

ADV151 is an input module. Output load, pulse-width and transistor-contact specifications from ADV551 do not apply.

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Input channels	32
Rated voltage	24 V DC sink/source
ON voltage	18 to 26.4 V DC
OFF voltage	5.0 V DC or less
Input current	4.1 mA +/-20% per channel at rated voltage
Maximum allowable input	30.0 V DC
Module current	Maximum 500 mA at 5 V DC
Input/system boundary	Isolated

Thresholds belong to ADV151

Do not use output-module or 64-channel ADV161 thresholds for this module.

Maximum is not an operating target

30.0 V DC is an allowable boundary, not a nominal field-supply setting.

Node power is shared

Include the module current in the complete installed FIO power budget.

Field test must be permitted

Apply test voltage only under the approved process and circuit procedure.

Acceptance range

Known OFF point	At or below the documented 5.0 V DC limit
Known ON point	Within 18 to 26.4 V DC
Intermediate or unstable point	Trace field source, common, terminal and configuration before replacing more hardware

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Common group A	Inputs 1-16
Common group B	Inputs 17-32
Polarity rule	Externally supplied 24 V DC for both groups must use the same polarity
Terminal map	IN1-IN16 and IN17-IN32 with separate common positions
Redundant use	Supported when applied by the approved project design

Record both common groups

A correct channel list is incomplete unless the common conductors and polarity are also captured.

Do not reverse one group

Opposite polarity between the two 16-channel commons violates the published wiring note.

Separate field and software checks

A wrong state can originate at the field source, conductor, common, terminal or channel configuration.

Redundant sides need unique labels

Preserve the module and common-group identity on both sides of a redundant installation.

Service record

Before removal	Record every used input, normal state and common conductor.
During transfer	Label polarity and terminal position; do not rely on color alone.
Before release	Prove permitted OFF and ON states and clear unexplained diagnostics.
After release	Retain the final channel/common map with the maintenance record.

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Hardware	Role	Architecture
ATB5S	Single pressure-clamp terminal block	Direct field termination
ATB5D	Dual pressure-clamp terminal block	Redundant direct termination
ATD5A + AKB331	Cable-interface adapter and dedicated cable	External terminal-board path
AED5D	Remote terminal board	Used with the documented adapter/cable arrangement

Connection form is an installation choice

Electrical module identity does not make direct and remote termination interchangeable.

Cable withstand follows its hardware

When a MIL or dedicated cable is used, evaluate the published cable and terminal-board limits.

Adapter identity must be exact

ATD5A belongs to the documented ADV151/ADV551 32-channel path; retain its complete tag.

No output-data borrowing

ADV551 shares some connection hardware but is an output module and its load specifications do not apply.

Selection boundary

Direct terminal installed	Restore the same approved ATB5S or ATB5D form.
External board installed	Retain ATD5A, AKB331 and terminal-board identities together.
Architecture is unknown	Stop and trace the complete field-connection path before ordering.
P00 suffix is unresolved	Keep the historical marking; do not substitute a later suffix description.

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Verified function	32-channel 24 V DC isolated digital input
Verified thresholds	18-26.4 V ON; <=5.0 V OFF
Verified grouping	Two 16-channel common groups with identical polarity
Verified connection forms	ATB5S, ATB5D, ATD5A/AKB331 and AED5D
Verified limitation	P00 S2 retained without later-suffix decoding

Technical reference record

Yokogawa Digital I/O Modules

GS 33J60F50-01EN; selected pages 1, 6 and 8 for ADV151 characteristics, physical form and ordering evidence.

Related Apter Power catalog references

Catalog navigation only. These entries do not establish compatibility, substitution or approval of a changed installation.

Yokogawa AFV10D S2 | View Yokogawa AFV10D S2 page

Yokogawa EC401-10 S2 | View Yokogawa EC401-10 S2 page

Yokogawa ATA4D-00 S2 | View Yokogawa ATA4D-00 S2 page

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Send the exact model, quantity and requested condition for a quotation.

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