COMPLETE PRODUCT INFORMATION / 01

GE IC693MDL753

32-point positive-logic discrete output module

PRODUCT ROLE

IC693MDL753 converts 32 Series 90-30 %Q commands into sourcing outputs for user-powered 12/24 VDC loads. The four isolated eight-point groups may serve different load voltages within the documented field range.

CPU Runs control logic → **%Q** 32 command bits → **OUTPUT** Four groups → **LOAD** 12/24 VDC devices

32 outputs
Four groups of eight

10.2-28.8 VDC
Documented field range

0.5 A
Maximum per point

0.5 ms
Maximum ON/OFF response

ENGINEERING SNAPSHOT

Domain	Verified exact-model value
Product type	Series 90-30 positive-logic discrete output module
Rated voltage	12 to 24 VDC, positive logic
Output voltage range	10.2 to 28.8 VDC
Output count	32 points in four isolated groups of eight
Output current	0.5 A per point; 4 A maximum per group; 3 A maximum per common pin
Isolation	1500 V field-to-logic; 250 V between groups

TECHNICAL CAPABILITY / 02

Electrical and interface map

Exact values from the IC693MDL753 module specification and field-wiring pages.

Electrical behavior	Value
Inrush current	5.4 A for 10 ms
On-state voltage drop	0.3 VDC
Off-state leakage	0.1 mA maximum

Control and power	Value
Response time	0.5 ms maximum ON; 0.5 ms maximum OFF
Backplane consumption	260 mA maximum from the 5 V bus
Output data	32 bits of discrete %Q output data

GROUP AND CONNECTOR ARCHITECTURE

Group A A1-A8; right-front connector; AVIN and A common	**Group B** B1-B8; right-front connector; BVIN and B common	**Group C** C1-C8; left-front connector; CVIN and C common
Group D D1-D8; left-front connector; DVIN and D common	**Direct field cable** Pre-wired cable pair IC693CBL327 and IC693CBL328, or application-built equivalents.	**TBQC option** Paired connector cables route the module to DIN-rail terminal blocks.

Both supply pins

Each group provides two supply pins. The manual requires both pins when total group load current is between 3 A and 4 A, and recommends both-pin connection generally.

POWER AND DIAGNOSTIC BOUNDARIES

Backplane demand	24 V gate drive	12 V gate drive	Status boundary
260 mA maximum from the 5 V bus.	16.5 mA maximum per group with all eight outputs ON.	9.6 mA maximum per group with all eight outputs ON.	Point LEDs indicate output state; no special fault or alarm diagnostics are reported.

INTEGRATION & APPLICATIONS / 03

Where the module fits

Applications are framed around the documented output architecture rather than a claimed end-machine certification.

Four-zone actuator marshalling

Separate 12/24 VDC loads into A, B, C and D output groups while maintaining a documented common for each group.

Mixed 12 VDC and 24 VDC loads

Use different groups for different documented load voltages within the 10.2 to 28.8 VDC operating range.

High-density control-panel service

Restore a 32-point positive-logic Series 90-30 output position with preserved slot, mapping and connector records.

Command-to-field acceptance

Commission each %Q point through LED, connector measurement and controlled field-device response.

SIGNAL AND POWER RELATIONSHIP

SERIES 90-30 CPU
Stops force all outputs OFF.

→

BACKPLANE
Supplies logic power; 260 mA maximum from 5 V.

→

IC693MDL753
Optocoupled field-to-logic boundary.

→

USER SUPPLY
Provides output load current and gate-drive current.

→

FIELD LOAD
Receives sourced current when commanded.

VERIFICATION BOUNDARIES

Command	Indication	Electrical	Functional
Confirm the correct %Q bit changes.	Confirm the matching A/B/C/D LED.	Measure the correct connector pin against its group common.	Observe the intended field device under controlled conditions.

COMMISSIONING RECORD

Record set	Required evidence
Configuration	Series 90-30 rack, I/O slot and the complete 32-point %Q map
Field interfaces	Right A/B and left C/D connector identities, group supplies and commons
Electrical tests	Polarity, point voltage, current budget and controlled load response
Safe-state test	Approved evidence that all outputs are forced OFF when the CPU is stopped

ENGINEERING DECISIONS / 04

FAQ and release precautions

Answers use exact-model values; precautions keep command, connector, current and field-response checks distinct.

How are the 32 outputs in GE IC693MDL753 organized?

They are arranged as four isolated groups of eight points: A1-A8, B1-B8, C1-C8 and D1-D8, with a separate common for each group.

What field-voltage range should be verified for GE IC693MDL753?

The rated value is 12 to 24 VDC positive logic, and the documented output-voltage range is 10.2 to 28.8 VDC.

What current limits apply to GE IC693MDL753?

Use 0.5 A maximum per point, 4 A maximum per eight-point group and 3 A maximum per group common pin.

When must both supply pins be wired on GE IC693MDL753?

Both group supply pins are required when the total load current for that group is between 3 A and 4 A; the manual recommends using both pins for the common connection generally.

What happens to GE IC693MDL753 outputs when the CPU stops?

All 32 outputs are forced OFF when the CPU is stopped.

How is GE IC693MDL753 represented in the PLC output table?

It is configured as a 32-point output type and occupies 32 bits of discrete %Q output data.

Which connector serves each output group on GE IC693MDL753?

The right-front 24-pin connector serves groups A and B; the left-front 24-pin connector serves groups C and D.

What status and diagnostic information does GE IC693MDL753 provide?

Front LEDs indicate the ON/OFF state of each point. The module does not report special fault or alarm diagnostics.

EIGHT RELEASE PRECAUTIONS

1

Verify the complete IC693MDL753 catalog number and installed Series 90-30 station before replacement.

2

Place commanded loads in a safe state and isolate user field power before disturbing either connector.

3

Keep positive-logic polarity and the documented 10.2 to 28.8 VDC load range.

4

Limit each output to 0.5 A and each eight-point group to 4 A maximum.

5

Observe the 3 A limit for each common pin; use both group supply pins when group current is between 3 A and 4 A.

6

Preserve the right-front A/B and left-front C/D connector assignment during reconnection.

7

Confirm the correct 32-bit %Q mapping before energizing field loads.

8

Test every point under controlled conditions; front LEDs show commanded status but do not replace a field-response check.

SOURCE & SUPPORT / 05

Traceability, related portfolio and contact

Related links are Apter Power navigation aids; they do not imply substitution or compatibility.

CANONICAL SOURCE

Source field	Recorded value
Document	Series 90-30 PLC I/O Module Specifications
Revision	GFK-0898F, July 2000
Exact-model pages	7-49 to 7-53
Evidence covered	Function, grouping, electrical limits, connectors, wiring map and field-wiring worksheets

HANDOVER RECORD

Nameplate and revision	Rack and slot	Connector and cable	Point acceptance
Preserve the installed IC693MDL753 identity and physical revision.	Retain the documented Series 90-30 position.	Record the right A/B and left C/D interfaces and cable method.	Retain the command, LED, terminal and field-response result for all 32 points.

RELATED GENERAL ELECTRIC PRODUCTS

General Electric IC693MDL655	Series 90-30 32-point discrete input module
General Electric IC693ALG442C	Series 90-30 analog voltage/current combination module
General Electric IC693ACC302B	Auxiliary battery module used with Series 90-30 controllers
General Electric IC693CPU363-DL	Series 90-30 CPU module listing

CONTACT APTER POWER

Industrial automation parts support

WhatsApp: +86 180 3023 5313

Email: sales13@apterpower.com

Scan the approved WhatsApp QR to start a product inquiry.