1X00691H01 output operations brief

A field-facing map of the Ovation 32-channel personality module

OPERATIONAL ROLE

The personality module is the field-side layer of the documented Ovation digital-output assembly. It accepts the paired electronics-module interface and distributes thirty-two sourced 24 V DC commands to the installed process wiring.

Four operating boundaries

HARDWARE DEPENDENCY

Pair the module with 5X00500G01 electronics and the 5X00497G01 four-slot I/O base.

OUTPUT ARCHITECTURE

Treat all thirty-two points as high-side, single-ended 24 V DC field outputs.

CURRENT ENVELOPE

Keep each channel at or below 500 mA and the complete module at or below 2 A.

DIAGNOSTIC SURFACE

Review P, C, E and I module indications together with the thirty-two channel LEDs.

IDENTITY HOLD POINT

Confirm the exact 1X00691H01 marking, the paired electronics module, the four-slot base and the recorded field assignment before any connector or module movement.

Approved assembly stack

The module is accepted as part of one documented hardware relationship

OVATION CONTROLLER

Issues the commanded digital-output states.

5X00500G01

Provides the paired output-electronics function.

1X00691H01

Connects the thirty-two high-side field circuits.

5X00497G01

Provides the required four-slot Ovation I/O base.

Base exclusion boundary

BASE	STATUS	ENGINEERING NOTE
5X00497G01	Required	Four-slot Ovation I/O base for the documented assembly
1B30035H01	Excluded	Do not use this standard base for 1X00691H01
1X00014H01	Excluded	Do not use this standard base for 1X00691H01
5X00334G01	Excluded	Do not use this standard base for 1X00691H01

Output loading and auxiliary protection

Use both the point limit and the whole-module limit when planning field loads

PER CHANNEL - 500 MA MAXIMUM

No individual output may exceed this published boundary.

WHOLE MODULE - 2 A MAXIMUM

The combined current of all active outputs remains inside this total.

AUXILIARY FUSE - 2.5 A / 250 V

Use the documented fast-acting 5 x 20 mm fuse.

Planning examples

LOAD CASE	CALCULATED TOTAL	DECISION
Four loads at 250 mA	1.0 A combined	Inside both the 500 mA point limit and 2 A module limit
Eight loads at 250 mA	2.0 A combined	At the module limit; preserve engineering margin where the design requires it
One load above 500 mA	Not accepted	The channel fails its individual limit even if total module current is below 2 A
Combined load above 2 A	Not accepted	The module limit is exceeded even when every single channel is below 500 mA

COMMISSIONING CONTROL

Compare the recorded field-load plan with the measured operating state. A correct channel map does not waive either current limit or the auxiliary-fuse requirement.

From module indication to field proof

Use the complete diagnostic surface before releasing the thirty-two outputs

1 IDENTITY

Confirm 1X00691H01, 5X00500G01 and 5X00497G01 as one installed assembly.

2 PROTECTION

Inspect auxiliary-supply wiring and the specified 2.5 A fast-acting fuse.

3 DIAGNOSTICS

Record P, C, E and I states and compare them with the approved maintenance procedure.

4 CHANNEL PROOF

Command points 1 through 32 and verify that each intended load changes state.

Acceptance evidence

DOMAIN	PASS CONDITION	RECORD
Hardware	The required base and paired electronics module remain installed.	Retain with the handover record
Diagnostics	Module-level and point-level indications are recorded without an unresolved state.	Retain with the handover record
Load control	Every output operates within the point and module current boundaries.	Retain with the handover record
Field response	All thirty-two commands agree with the approved channel schedule.	Retain with the handover record

Evidence, related products and direct support

A concise handover page for the served Complete Product Information file

Manufacturer evidence used

- Emerson Process Management Maintaining Your Ovation System, OW360_R1007.
- Emerson Ovation hardware-maintenance section for 24 V DC high-side, single-ended digital output personality modules.
- Emerson Ovation base-compatibility, diagnostic and fuse tables for the 1X00691H01 assembly.

Verified related ApterPower product pages

Emerson KJ1501X1-BC4 13P0063X052

Emerson KJ2201X1-BA1

Emerson KJ3001X1-BB1 12P0550X142

Emerson KJ3001X1-BC1 12P0551X132 VE4001S3T1B1

Emerson KJ3001X1-BH1 12P0558X152

Emerson KJ3002X1-BB1 12P0683X082

Handover file set

DOCUMENT	PRIMARY CONTENT	FIELD USE
Complete information	Assembly, load and diagnostic decisions	Use for operational review
Technical Reference	Exact engineering data and system role	Use for technical selection
Field guide	Replacement, commissioning and final checks	Use during controlled service

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1X00691H01