TECHNICAL REFERENCE / EXACT-MODEL DOSSIER

WESTINGHOUSE 5X00357G04

Enhanced SOE Contact Input Module

WESTINGHOUSE 5X00357G04 is a sixteen-channel Ovation enhanced sequence-of-events contact-input module with an isolated on-card 48 VDC wetting supply.

IDENTITY AND FUNCTION SNAPSHOT	
H1 Sixteen dry-contact inputs	**H2** 42-55 V open-contact wetting
H3 1/8 ms event-tag resolution	**H4** Ground-fault and power-check functions

Installed-system position

1	Dry field contact
2	5X00357G04 wetting and isolation
3	SOE debounce and time tag
4	Ovation event buffer

Exact-model release boundary

Identity Keep WESTINGHOUSE 5X00357G04 complete in drawings, labels and acceptance records.	**Evidence** Use only the exact-model and explicitly applicable family facts documented here.
Configuration Record cables, jumpers, settings and the installed functional position before work.	**Acceptance** Prove the affected control path before returning the equipment to service.

02 / SYSTEM ROLE AND INTERFACES

Architecture, interfaces and service boundaries

WESTINGHOUSE 5X00357G04 combines contact wetting, event detection and time tagging in one enhanced SOE module. Field wiring resistance, shared-return design, power-check channel and event-buffer behavior must be validated during commissioning.

CONTROL PATH	
1	Dry field contact
2	5X00357G04 wetting and isolation

3	SOE debounce and time tag
4	Ovation event buffer

Interface architecture

Contact boundary	Sixteen dry contacts and a common-return field circuit
Wetting boundary	Isolated on-card 48 VDC nominal supply
Event boundary	Debounce, transition qualification and time tagging
Controller boundary	Present-state and event-buffer data on the Ovation I/O bus

Interface acceptance checks

1

Isolate field contacts and follow ESD controls before handling WESTINGHOUSE 5X00357G04.

2

Confirm the complete G04 identity and 1C31238H01 field insert.

3

Record all sixteen point assignments, common-return wiring and the configured power-check channel.

4

Do not connect any input or return conductor to earth ground.

Engineering rule

A nearby WESTINGHOUSE family code does not establish interchangeability with 5X00357G04; use the physical nameplate and controlled site records.

ENGINEERING SUMMARY / MODEL-SPECIFIC CHECKPOINTS

- Contact boundary: Sixteen dry contacts and a common-return field circuit
- Wetting boundary: Isolated on-card 48 VDC nominal supply
- Event boundary: Debounce, transition qualification and time tagging
- Controller boundary: Present-state and event-buffer data on the Ovation I/O bus

03 / VERIFIED TECHNICAL DATA

Engineering matrix and component map

Every populated row is a technical value supported by the reviewed exact-model record or an explicitly applicable WESTINGHOUSE family source.

Product class	Enhanced sequence-of-events contact-input module
Channel count	16
Input arrangement	Single ended; common return
Open-contact voltage	42-55 V
Closed-contact current	4-8 mA
Field power	On-card 48 VDC nominal wetting supply
Event-tag resolution	1/8 ms
Time-tag accuracy	1 ms to I/O-bus clock; 1/8 ms channel-to-channel
Response time	4.09 ms open-to-close; 4.13 ms close-to-open typical
Wiring resistance	100 ohms maximum for closed-contact recognition
Field insert	1C31238H01
Channel-to-bus isolation	Galvanically isolated

CHANGE CONTROL

Record

Capture the full model, revision, slot, connectors and as-found condition.

Compare

Match every populated technical row to the replacement and project record.

Protect

Apply controlled isolation, stored-energy and ESD practices.

Prove

Complete the product-specific functional and safe-state checks.

Source applicability

Evidence record	Applicable scope
Ovation I/O Reference Manual OW350_R1150, Enhanced Compact SOE Digital Input G04 section	Supports only the exact-model or explicitly applicable family facts used in this document.

04 / SERVICE LOGIC AND ACCEPTANCE

Fault isolation and controlled return

1	Capture the fault, indicators and surrounding-system state
2	Verify exact identity, power boundary, cabling and installed position
3	Test WESTINGHOUSE 5X00357G04 against the approved service procedure
4	Correct the isolated cause and restore the recorded configuration
5	Commission the affected path and archive measured evidence

Eight product-specific precautions

1 Isolate field contacts and follow ESD controls before handling WESTINGHOUSE 5X00357G04.	**2** Confirm the complete G04 identity and 1C31238H01 field insert.
3 Record all sixteen point assignments, common-return wiring and the configured power-check channel.	**4** Do not connect any input or return conductor to earth ground.
5 Keep total closed-contact wiring resistance below the documented limit.	**6** Correct ground faults before accepting event data from the affected module.
7 Test open and closed states and verify event timestamps against the synchronized I/O-bus clock.	**8** Prove power-check, ground-fault, bad-quality and event-buffer behavior before release.

05 / ENGINEERING FAQ AND SUPPORT

Model-specific engineering decisions

Engineering decision	Controlled response
How many contacts does WESTINGHOUSE 5X00357G04 monitor?	It monitors sixteen single-ended dry-contact inputs.
What wetting voltage is used by WESTINGHOUSE 5X00357G04?	The on-card supply provides 48 VDC nominal wetting, with 42 to 55 V documented at an open contact.
What current indicates a closed contact on WESTINGHOUSE 5X00357G04?	The documented closed-contact current is 4 to 8 mA.
What event-tag resolution does WESTINGHOUSE 5X00357G04 provide?	The module time-tags events at 1/8 ms resolution.
Which wiring resistance limit applies to WESTINGHOUSE 5X00357G04?	Closed-contact recognition requires total wiring resistance below 100 ohms.
Which field insert is documented for WESTINGHOUSE 5X00357G04?	The documented insert is 1C31238H01.

Engineering decision	Controlled response
How is the WESTINGHOUSE 5X00357G04 wetting supply supervised?	A selected input can be hard-wired and configured as the power-check channel; loss of that state marks the module points bad quality.
How should the final SOE acceptance test be run on WESTINGHOUSE 5X00357G04?	Verify every contact state, timestamp accuracy, common return, power check, ground-fault indication and event-buffer handling.

Related Apter Power references

Related Apter Power references	Scope note
WESTINGHOUSE 5X00300G01	Portfolio reference only; verify compatibility independently.
WESTINGHOUSE 5X00419G01	Portfolio reference only; verify compatibility independently.
WESTINGHOUSE 5X00481G04	Portfolio reference only; verify compatibility independently.

	Apter Power technical support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com	Model record WESTINGHOUSE 5X00357G04 Enhanced SOE Contact Input Module Verify the complete nameplate before installation.

ENGINEERING SUMMARY / MODEL-SPECIFIC CHECKPOINTS

- Exact model: WESTINGHOUSE 5X00357G04
- Retain nameplate, wiring and as-left acceptance evidence.
- Use only the Apter Power links contained in this document.
- Verify compatibility independently before installation.