TECHNICAL REFERENCE / EXACT-MODEL DOSSIER

WESTINGHOUSE 1C31189G03

Enhanced Speed Detector Module

WESTINGHOUSE 1C31189G03 is an Ovation enhanced speed-detector electronics module for high-resolution frequency, speed, acceleration and overspeed processing.

IDENTITY AND FUNCTION SNAPSHOT	
H1 32-bit high-resolution speed	**H2** 0.089-30000 Hz measurement range
H3 Acceleration and overspeed processing	**H4** 1C31192G01 personality pairing

Installed-system position

1	Speed sensor
2	1C31192G01 personality module
3	1C31189G03 processing
4	Ovation speed and trip logic

Exact-model release boundary

Identity Keep WESTINGHOUSE 1C31189G03 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 1C31189G03 is used where Ovation must calculate and supervise rotating-equipment speed. Sensor type, pulses per revolution, direction, alarm points and relay logic must be reconciled before the module is returned to service.

CONTROL PATH	
1	Speed sensor
2	1C31192G01 personality module

3	1C31189G03 processing
4	Ovation speed and trip logic

Interface architecture

Sensor boundary	Pulse or frequency signal from the installed speed pickup
Personality interface	1C31192G01 field conditioning and termination
Processing boundary	Speed, acceleration, open-wire and overspeed calculations
Controller boundary	Point values, status and trip/relay logic in Ovation

Interface acceptance checks

1

Place the machine and related trip logic in the approved safe condition before handling WESTINGHOUSE 1C31189G03.

2

Confirm the complete G03 identity and 1C31192G01 personality-module pairing.

3

Record pulses per revolution, scale, direction, alarm points and relay logic before removal.

4

Verify sensor gap, cable shield, polarity and field continuity before installing the replacement.

Engineering rule

A nearby WESTINGHOUSE family code does not establish interchangeability with 1C31189G03; use the physical nameplate and controlled site records.

ENGINEERING SUMMARY / MODEL-SPECIFIC CHECKPOINTS

- Sensor boundary: Pulse or frequency signal from the installed speed pickup
- Personality interface: 1C31192G01 field conditioning and termination
- Processing boundary: Speed, acceleration, open-wire and overspeed calculations
- Controller boundary: Point values, status and trip/relay logic in Ovation

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 speed-detector electronics module
Platform	Ovation
Resolution	32-bit high-resolution speed
Frequency range	0.089 Hz to 30000 Hz
Acceleration range	±32767 RPM/min
Companion personality module	1C31192G01
Subsystem capacity	Six speed channels
Software applicability	Ovation 3.3.1 and above

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 Speed Detector Reference Manual OW360_R1152, enhanced module type G03	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 1C31189G03 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 Place the machine and related trip logic in the approved safe condition before handling WESTINGHOUSE 1C31189G03.	**2** Confirm the complete G03 identity and 1C31192G01 personality-module pairing.
3 Record pulses per revolution, scale, direction, alarm points and relay logic before removal.	**4** Verify sensor gap, cable shield, polarity and field continuity before installing the replacement.
5 Do not copy settings from a nearby speed channel without an approved channel record.	**6** Test open-wire behavior separately from normal speed measurement.
7 Prove speed and acceleration with a traceable frequency source across representative points.	**8** Complete overspeed and latched-relay acceptance only under the plant-approved protection test procedure.

05 / ENGINEERING FAQ AND SUPPORT

Model-specific engineering decisions

Engineering decision	Controlled response
What does WESTINGHOUSE 1C31189G03 measure?	It processes frequency-derived speed and acceleration for enhanced Ovation speed-detector points.
Which frequency range is documented for WESTINGHOUSE 1C31189G03?	The high-resolution speed range is 0.089 Hz to 30000 Hz.
Which acceleration range applies to WESTINGHOUSE 1C31189G03?	The documented acceleration range is ±32767 RPM per minute.
Which personality module pairs with WESTINGHOUSE 1C31189G03?	The documented companion is 1C31192G01.
How many speed channels are identified in the WESTINGHOUSE 1C31189G03 subsystem?	The enhanced subsystem documents six speed channels.
Which diagnostic points are available for WESTINGHOUSE 1C31189G03?	The G03 point map includes open-wire, relay-status and simulation/acknowledgment functions in addition to speed points.
Which Ovation release applies to WESTINGHOUSE 1C31189G03?	The enhanced speed-detector documentation applies to Ovation 3.3.1 and later.
How is acceptance completed for WESTINGHOUSE 1C31189G03?	Verify scaling, direction, frequency response, acceleration, open-wire status, alarms and approved overspeed relay logic.

Related Apter Power references

Related Apter Power references	Scope note
WESTINGHOUSE 1P00028G01	Portfolio reference only; verify compatibility independently.
WESTINGHOUSE 5X00106G01	Portfolio reference only; verify compatibility independently.
WESTINGHOUSE 5X00119G01	Portfolio reference only; verify compatibility independently.

	Apter Power technical support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com	Model record WESTINGHOUSE 1C31189G03 Enhanced Speed Detector Module Verify the complete nameplate before installation.

ENGINEERING SUMMARY / MODEL-SPECIFIC CHECKPOINTS

- Exact model: WESTINGHOUSE 1C31189G03
- Retain nameplate, wiring and as-left acceptance evidence.
- Use only the Apter Power links contained in this document.
- Verify compatibility independently before installation.