WESTINGHOUSE 5X00109G02

HART Input Personality Module

WESTINGHOUSE 5X00109G02 is an eight-channel personality module for Ovation high-performance 4-20 mA HART analog inputs, with per-channel power-selection jumpers and active current limiting in two-wire mode.

01	02	03	04
Eight fused HART input channels	Per-channel power-source jumpers	Active current limiting in two-wire mode	4-20 mA high-performance input subsystem

System position

Two-wire or four-wire transmitter	5X00109G02 personality module	5X00106 electronics module	Ovation controller and HART data path

Product and release scope

Exact identity	Engineering use	Verification boundary	Acceptance
WESTINGHOUSE 5X00109G02 is retained without shortening its suffix.	WESTINGHOUSE 5X00109G02 carries eight fused current-loop inputs. Its G02 revision adds active current limiting for two-wire operation and requires an applicable Ovation software release before the subsystem is commissioned.	Only exact-model or explicitly applicable family facts are populated.	Connections, configuration, function and safe response require recorded proof.

02 / CAPABILITY AND INTERFACE MAP

Verified technical matrix

Product class	HART analog-input personality module
Channel count	8
Analog range	4-20 mA
Transmitter arrangements	2-wire loop powered; 4-wire active source
Input protection	Eight fused inputs

Channel configuration	User-accessible power-selection jumpers
G02 function	Active current limiting in two-wire mode
Paired electronics	5X00106G01 or 5X00106G02
Software applicability	Ovation 3.4.0 or later; Ovation 3.3.1 with patch OVA331063

Interface architecture

Field-loop boundary	Jumper boundary	Electronics interface	Software boundary
Eight 4-20 mA/HART transmitter circuits	Individual selection of locally powered or field-powered operation	5X00106 high-performance HART input electronics	Ovation release and patch level checked before configuration

Control path

Two-wire or four-wire transmitter	5X00109G02 personality module	5X00106 electronics module	Ovation controller and HART data path

Technical service focus

H1	H2	H3	H4
Eight fused HART input channels	Per-channel power-source jumpers	Active current limiting in two-wire mode	4-20 mA high-performance input subsystem

Use cases with controlled scope

Smart-transmitter acquisition

Connects eight HART-capable 4-20 mA field transmitters to Ovation.

Mixed powering arrangements

Allows individual channels to follow the installed two-wire or four-wire design.

Current-loop protection

Provides fused inputs and G02 current limiting at the personality-module boundary.

Subsystem service

Supports controlled troubleshooting of loop power, HART communication and analog measurement paths.

INTEGRATION CHECKPOINTS

Identity

WESTINGHOUSE 5X00109G02 remains complete in purchasing, drawings and labels.

Host system

Installed position and surrounding hardware are verified before exchange.

Configuration

Project data, jumpers, wiring and settings are recorded as applicable.

Acceptance

Functional and safe-state evidence is captured before release.

Installation decision points

1

De-energize auxiliary loop power and verify all eight channels before handling WESTINGHOUSE 5X00109G02.

2

Confirm the complete G02 identity and the paired 5X00106 electronics module before exchange.

3

Record every channel jumper before removal; each jumper determines field-powered or local-powered operation.

4

Check the Ovation release level and OVA331063 patch requirement before enabling the G02 subsystem.

System relationship

Two-wire or four-wire transmitter	5X00109G02 personality module	5X00106 electronics module	Ovation controller and HART data path

FAQ decision matrix

Engineering decision	Controlled response
How many field channels are provided by WESTINGHOUSE 5X00109G02?	It provides eight fused analog-input channels.
Which signal type does WESTINGHOUSE 5X00109G02 handle?	It is used for 4-20 mA high-performance HART analog inputs.
How is transmitter power selected on WESTINGHOUSE 5X00109G02?	User-accessible jumpers configure each channel for field-powered or local-powered operation.
What distinguishes the G02 revision of WESTINGHOUSE 5X00109G02?	The G02 revision adds active current limiting for two-wire mode.

Eight release precautions

1

De-energize auxiliary loop power and verify all eight channels before handling WESTINGHOUSE 5X00109G02.

2

Confirm the complete G02 identity and the paired 5X00106 electronics module before exchange.

3

Record every channel jumper before removal; each jumper determines field-powered or local-powered operation.

4

Check the Ovation release level and OVA331063 patch requirement before enabling the G02 subsystem.

5

Replace a channel fuse only with the specified type and only after locating the loop fault that opened it.

6

Keep shielded I/O cabling and auxiliary-power routing consistent with the approved cabinet design.

7

Verify polarity and current-loop continuity before applying auxiliary power to two-wire transmitters.

8

Commission each channel with analog-current and HART communication checks, including current-limiting behavior where applicable.

Product verification and contact

Evidence applicability

Evidence record	Applicable scope
Emerson Ovation Spare Parts document PWS_010046	Supports only the exact-model or explicitly applicable family facts used in this document.
Ovation I/O Reference Manual OW350_R1150, HART high-performance analog-input section	Supports only the exact-model or explicitly applicable family facts used in this document.

Related Apter Power references

Related Apter Power references	Scope note
WESTINGHOUSE 1C31122G01	Portfolio reference only; verify compatibility independently.
WESTINGHOUSE 1C31125G02	Portfolio reference only; verify compatibility independently.
WESTINGHOUSE 1C31129G03	Portfolio reference only; verify compatibility independently.

	Apter Power technical support sales13@apterpower.com +86 180 3023 5313 www.apterpower.com	Model record WESTINGHOUSE 5X00109G02 HART Input Personality Module Verify the complete nameplate before installation.