General Electric IS200TSVOH1BDC

Complete Product Information

Product role

This terminal board connects two servo-valve circuits and their LVDT feedback to a Mark VI VSVO processor. Its field-terminal role includes the output shutdown interface, so coil selection, feedback wiring and trip-clamp connections must remain aligned.

Published product summary

Summary field	Published information
Product type	Servo Valve Terminal Board
Manufacturer part number	IS200TSVOH1BDC
Shipping	Swift global dispatch
Condition	New, original product
Shipping size (est.)	33cm x 17.7cm x 2.5cm
Country of Origin	USA

Native product information

Product field	Published information
Manufacturer	General Electric
Product Category	Gas Turbine Control
Spare Part Number	IS200TSVOH1BDC

Native product information - continued

Product field	Published information
Weight	0.56 kg
Tariff Code	8537101190

Overview

General Electric IS200TSVOH1BDC carries the actuator-side coil and displacement-feedback wiring; the selected coil resistance and termination jumpers establish the electrical load seen by VSVO.

Coil matching	Current rating and coil resistance must be considered together.
Feedback topology	Four-wire LVDT and three-wire LVDR use different field connections.
Trip connection	The installed JD1 clamp path is separate from normal valve positioning.

Selection and adjacent choices

IS200TSVOH1BDC is the two-loop TSVO termination used with Mark VI VSVO processing. The coil-selection table distinguishes simplex and TMR loads: equal nominal current does not imply equal permissible coil resistance. For example, the documented 40 mA choices use 62 ohm simplex and 89 ohm TMR coils; the correct setting follows the actual actuator and architecture.

Operating relationship

Valve position can be returned by a four-wire LVDT or a three-wire LVDR. The excitation source floats relative to signal common, while the measured feedback is converted and checked in the processor. Preserve the actual winding connections and approved stroke direction; a typical increase in RMS feedback is not a universal rule for every valve installation.

Integration implications

In the applicable simplex trip arrangement, TREG J1 connects to TSVO JD1 to clamp the servo on turbine trip. This path and the coil shorting function have a different purpose from ordinary position control. A successful stroke test therefore cannot replace the site-approved trip/clamp proof.

Technical parameters

Parameter	Value / condition
Servo outputs	2
LVDT input windings	6
LVDT/R excitation sources per terminal	2 simplex; 4 TMR
Servo current selection span	10-120 mA
LVDT excitation, matched path	7.00 +/-0.14 V rms
LVDT excitation frequency	3.2 +/-0.2 kHz
Servo sampling, matched path	200 Hz
Servo conversion resolution	12 bit
LVDT conversion resolution	14 bit
Servo accuracy, matched path	2%
LVDT accuracy, matched path	1%
LVDT/R maximum two-way lead resistance	15 ohm
LVDT/R maximum stated distance	300 m
Loaded excitation distortion	Less than 1% THD

Parameter applicability

TSVO H1B field termination data apply to the offered DC revision. Excitation and conversion performance describe the matched VSVO/TSVO path; source count and coil selection retain simplex/TMR conditions.

System and supply context

The terminal board joins two actuator coil circuits and their position-feedback wiring to the VSVO rack path.

Integration boundary

Select coil jumpers from both resistance and current requirements; keep sensor excitation and trip-clamp circuits identified separately.

Applications / Compatibility

Simplex actuator wiring

Match the documented simplex coil/current combination and its field return before energizing an output.

TMR coil termination

Use the redundant coil arrangement and its associated load selection rather than transferring a simplex jumper pattern.

LVDT or LVDR feedback

Land the correct number of sensor conductors and preserve the calibrated minimum/maximum stroke relationship.

Trip-clamp restoration

Reinstate the simplex TREG-to-JD1 clamp circuit when it forms part of the installed shutdown design.

Precautions scope

Control actuator authority while checking coil selection, winding direction and the independent trip-clamp interface.

Installation precautions

Engineering field	Interpretation / condition
Measure the isolated coil	Compare winding resistance with the selected current and architecture before copying terminal jumper positions.
Keep excitation floating	Do not add a signal-common bond to the LVDT/R excitation without the approved wiring basis.

Installation precautions - continued

Engineering field	Interpretation / condition
Retain stroke orientation	Record feedback at the approved end positions before dismantling the connection; some applications reverse the usual RMS progression.
Check long sensor routes	Apply the 300 m route allowance together with the maximum 15 ohm two-way resistance for LVDT/R wiring.
Separate clamp testing	Test the JD1 trip interface under the approved shutdown procedure, independently of normal servo command following.
Validate both terminal loops	Prove each coil/feedback assignment separately so crossed loop wiring is not masked by an apparently moving valve.

Lifecycle and replacement

Engineering field	Interpretation / condition
TSVO availability phase	The manufacturing lifecycle stage of IS200TSVOH1BDC is unconfirmed.
Actuator retention	A same-function replacement still requires the existing coil selection and feedback topology; changing either is an actuator-interface engineering change.
Platform dependency	TSVO replacement preserves a field termination in the VSVO system and does not replace the rack servo-processing function.

Available Unit Details

Engineering field	Interpretation / condition
Offered field board	IS200TSVOH1BDC retains the H1B TSVO design identity and DC revision marking.

Available Unit Details - continued

Engineering field	Interpretation / condition
Associated equipment	The servo valves, LVDT/R sensors and VSVO processor are companion equipment, not functions contained in this terminal board.
Transport estimate	The supplied shipping dimensions are 33cm x 17.7cm x 2.5cm, 0.56 kg; these do not describe actuator stroke or sensor-cable length.

Alternative Names

Variant	Complete-model spelling
1	GE IS200TSVOH1BDC
2	General Electric IS200TSVOH1BDC

Technical notes

Engineering field	Interpretation / condition
Coil-selection example	The 120 mA selections distinguish a 40 ohm simplex coil from a 75 ohm TMR coil; the current label alone does not establish the proper jumper configuration.
Excitation quality	The matched LVDT/R source is specified with less than 1% loaded harmonic distortion; evaluate waveform quality as well as RMS amplitude during feedback diagnosis.
Feedback common mode	The floating excitation supports the stated common-mode allowance up to 35 V DC or 35 V RMS at 50/60 Hz; this is not permission to apply that voltage as the sensor excitation.

Technical questions

Full-model question	Engineering answer
Why can IS200TSVOH1BDC need a different setting for two 40 mA coils?	The standard table associates 62 ohms with simplex and 89 ohms with TMR at that current. Match the measured winding and architecture to the complete table rather than selecting on nominal mA alone.
Can the typical feedback endpoints be used as calibration setpoints for IS200TSVOH1BDC?	The typical LVDT/R RMS endpoints can be reversed in some applications. Establish the valve-specific mechanical endpoints and approved configuration, then verify feedback direction before closing the loop.
Why can an LVDT signal on IS200TSVOH1BDC change after adding a common wire?	Its excitation is intentionally floating. Review the added bond, sensor topology and approved return path; an unintended common can alter the measurement reference even when the RMS amplitude remains plausible.
How should IS200TSVOH1BDC be checked when the valve moves correctly but fails the shutdown proof?	Trace the installed TREG/JD1 clamp connection and output shorting path separately from command tracking. Verify the intended protective action under the machine shutdown procedure without treating ordinary movement as trip evidence.
Can the number of excitation sources on IS200TSVOH1BDC be assumed identical in simplex and TMR?	The documented terminal arrangement uses two sources for simplex and four for TMR. Confirm the architecture and actual sensor assignment before interpreting a spare excitation connection as a missing circuit.
What makes an LVDT/R cable acceptable for IS200TSVOH1BDC at the maximum route length?	It must also satisfy the maximum two-way resistance and retain the intended conductor arrangement. Measure the installed path including connections; distance alone does not prove excitation and feedback integrity.
How can crossed feedback windings at IS200TSVOH1BDC be detected before enabling the servo?	With motion safely controlled, compare each named feedback channel with the corresponding valve position while the other loop remains fixed. Record both channel assignment and direction before restoring closed-loop authority.
Does IS200TSVOH1BDC require every non-standard coil to be rejected?	The manufacturer describes non-standard selection by matching the total resistance, including an 80 mA, 125 ohm example using setting 120B. Such a selection requires the applicable coil-table engineering calculation, not a copied standard jumper pattern.

Downloads

Document	Content and format
Technical reference	Original GEH-6421H system-architecture pages for the servo termination and trip architecture. PDF, 3 pages.
Engineering guide	Apter Power field guide: coil-resistance selection, floating excitation and trip-clamp proof. PDF, 2 pages.

What happens after you enquire

Engineering field	Interpretation / condition
1 Review your reference	Send the full marking, quantity and label photos. We review the item and any version details that need clarification.
2 Confirm the offer	Check the quoted reference, condition, included items and expected dispatch date before approving your order.
3 Arrange dispatch	Confirm delivery details and receive the tracking number when it becomes available.

Ordering checks

Engineering field	Interpretation / condition
Match the complete marking	Include IS200TSVOH1BDC and every hardware or assembly-revision marking visible on the item. Keep the exact reference on your enquiry and quotation.
Check the offered item before ordering	Request available label and interface photos. Have your maintenance team compare the offered IS200TSVOH1BDC reference with the installed equipment and applicable General Electric documentation.

Sourcing and service information

Engineering field	Interpretation / condition
Title-area support	Sourcing Support; 12-Month Warranty

Sourcing and service information - continued

Engineering field	Interpretation / condition
Dispatch Confirmation	Quantity and dispatch date confirmed in quotation.
Dedicated Manager	Personalized one-to-one VIP service
ISO 9001:2015 Certified	Trusted quality management
Warranty Policy	Review the applicable warranty coverage and claim process.
Return Notice	Obtain return approval before sending an item back.
Shipping Method	Worldwide shipping; freight and timing confirmed in quotation.
Parts Availability	Quantity, dispatch date and lead-time start confirmed in quotation.

Technical basis

GE Mark VI System Guide GEH-6421H, Volume I; GEH-6421M, Volume II

Related platform references - separate selection review

General Electric IS200VSVOH1BEF	Servo Control Processor Board
General Electric IS200TVIBH2BCC	Vibration Input Terminal Board

Engineering contact

Discuss the complete unit and installed application with Apter Power.
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