

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB NTHS03

NTHS03 Host and Field-Loop Verification Guide

ABB NTHS03 Hydraulic-Servo Termination Unit

DOCUMENT SCOPE

Independent Apter Power manual compiled only from the cited ABB manufacturer sources. No product photograph is included.

Product / lookup identity	ABB NTHS03
Reference number	NTHS03
Document basis	Published ABB product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/ABB/nths03>
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Hydraulic-servo termination and field-loop path

ABB NTHS03 is the termination unit identified by ABB as an existing companion component in the Symphony Plus Harmony Rack SPHSS13 hydraulic-servo control arrangement. Its documented system role is to provide the termination/interface point used with the SPHSS13 hydraulic servo module and NKHS03 cable so the controller-side module can be connected to the engineered turbine valve-position field circuit; the exact terminal allocation and internal circuitry must come from the ABB NTHS03 instruction and project drawing.

01	Termination Role: Provides the documented termination-unit position associated with SPHSS13 and the NKHS03 cable in a Harmony Rack turbine hydraulic-servo arrangement.
02	Associated Feedback: The SPHSS13 system accepts AC or DC LVDT actuator-position feedback. The cited public sources do not publish the NTHS03 terminal map, excitation routing, common-mode limits, or calibration connections.
03	Associated Outputs: The SPHSS13 system regulates servo-valve current, supports redundant coils, and can interface to I/H converter ranges described by ABB. These are system/module capabilities and must not be relabeled as independent NTHS03 output ratings.
04	Associated Discrete Signals: The SPHSS13 system includes raise, lower, and trip-bias contact inputs and a hard-manual output; exact NTHS03 termination assignments are unknown from the cited public sources.
05	Processing Boundary: NTHS03 is a termination unit, not the intelligent control module. The SPHSS13 contains the processor, memory, communication, signal-conditioning, automatic-calibration, and valve-control functions.

SPHSS13/NKHS03 system and terminal-data boundaries

01	Verification Status: VERIFIED_MODEL_AS_AN_ABB_NTHS03_TERMINATION_UNIT_USED_WITH_SPHSS13_AND_NKHS03; EXACT_STANDALONE_PRODUCT_RECORD_AND_TERMINAL_DATA_NOT_PUBLICLY_VERIFIED
02	Exact Mapping: ABB's official Symphony Plus lifecycle presentation says the SPHSS13 hydraulic servo module uses the existing NKHS03 cable and NTHS03 termination unit. ABB's current HR Series material identifies SPHSS13 as a hydraulic servo valve-position control module. No cited public ABB source provides a separate NTHS03 order number, terminal schedule, or standalone technical data sheet.
03	Lifecycle Status: unknown for NTHS03. ABB's 2016 presentation calls it an existing related product, but no cited exact public ABB source assigns an Active, Classic, Limited, or Obsolete lifecycle phase.

Nameplate, drawing, LVDT, valve, and fail-safe checks

01	Confirm NTHS03 on the physical label and obtain the exact ABB NTHS03 instruction and project termination diagram before wiring or publication of any terminal-level value.
02	Verify the host hydraulic-servo module, NKHS03 cable, controller type and firmware, LVDT type, servo valve or I/H converter, cabinet revision, and project bill of materials as one matched system.
03	Apply turbine and process lockout, hydraulic pressure isolation, electrical isolation, stored-energy release, and trip-system procedures before disturbing the termination unit or field wiring.
04	Do not copy SPHSS13 module ratings, channel counts, pin numbers, excitation values, servo-output ranges, isolation, environmental limits, or dimensions into an NTHS03 parameter table.
05	Maintain the project-defined segregation, shielding, grounding, polarity, pair twisting, and cable routing for LVDT feedback, servo outputs, analog test signals, discrete bias inputs, and power wiring.
06	Do not connect an unverified LVDT, servo coil, or I/H converter; confirm electrical type, range, coil arrangement, stroke direction, fail action, and mechanical travel from ABB and actuator documentation.

Identity and release controls

Verification Status	VERIFIED_MODEL_AS_AN_ABB_NTHS03_TERMINATION_UNIT_USED_WITH_SPHSS13_AND_NKHS03; EXACT_STANDALONE_PRODUCT_RECORD_AND_TERMINAL_DATA_NOT_PUBLICLY_VERIFIED
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Official ABB sources

ABB Symphony Plus life cycle updates presentation	https://library.e.abb.com/public/0e820d314f9e491380a1bfbf0e7073d1/04_Symphony%20Plus%20life%20cycle%20updates-Jim%20Day.pdf
ABB Ability Symphony Plus Product Catalog	https://library.e.abb.com/public/1a6c9b92b1ef4d9cba4acd211ba01e5b/2VAA005340%20en%20E%20Symphony%20Plus%20Product%20Catalog.pdf.pdf
ABB Ability Symphony Plus HR Series Control and I/O	https://new.abb.com/control-systems/symphony-plus/control-and-io/hr-series-control-and-i-o
ABB Ability Symphony Plus overview	https://new.abb.com/control-systems/symphony-plus