APTER POWER
INDUSTRIAL AUTOMATION

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB SPHSS13

SPHSS13 Evidence-Bounded Product Information Manual

ABB SPHSS13 SPHSS13 Hydraulic Servo Module

DOCUMENT SCOPE

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

Product / lookup identity	ABB SPHSS13
Reference number	SPHSS13
Document basis	Published ABB product records, PDFs, and manuals listed on page 3

Product page

https://www.apterpower.com/ABB/sphss13

Apter Power contact

sales13@apterpower.com | +86 180 3023 5313

Workflow and system context

ABB SPHSS13 is a Symphony Plus HR Series hydraulic servo module for closed-loop valve-position control. The module accepts redundant LVDT position feedback and supports AC or DC LVDTs, then regulates redundant protected servo outputs in ±300 mA servo mode or 4-20 mA/20-160 mA I/H modes.

01	System Inputs: Redundant AC or DC LVDT position feedback, raise/lower/trip-bias contacts, and controller demand/configuration.
02	Processing: Onboard microprocessor, memory, and communication circuitry perform proportional or proportional-integral valve-position control, automatic feedback/demodulator calibration, and redundancy handling.
03	Outputs: Protected redundant servo-coil current or I/H current, LVDT excitation, scaled/unscaled feedback, test output, and hard-manual open-collector status/control output.
04	Communications: Harmony Rack/HR Series controller interface through the module mounting architecture; field signals route through NTHS03 and NKHS03 in the documented configuration.
05	Boundary: SPHSS13 controls actuator position; SPTPS13 supplies coordinated turbine speed detection/protection. Do not attribute overspeed measurement to SPHSS13 alone.

Published context and boundaries

01	Verify the full SPHSS13 nameplate/revision and installed function-code mode.
02	Confirm AC/DC LVDT type, servo or I/H mode, coil current, termination NTHS03, cable NKHS03, controller firmware, and redundancy architecture.
03	Do not merge SPHSS13 with IMHSS03/04/05, SPHSS03/04/05, SPLPS01, SPTPS13, or any service code.

Verification and release checks

01	Treat hydraulic turbine control as critical equipment; use an approved outage, bypass, fail-safe, and rollback plan.
02	Back up Function Code 55 configuration, gains, limits, polarity, calibration, output mode, redundancy, and alarms before service.
03	Verify AC/DC LVDT type, excitation, wiring, secondaries, common mode, mechanical stroke, polarity, and calibration.
04	Confirm servo versus I/H mode, current range, coil/load limits, redundant-coil wiring, and hydraulic fail-safe direction before energizing.
05	Verify NTHS03, NKHS03, jumpers, dip switches, shields, field power, controller type, and required firmware against ABB/project documentation.
06	After service, test automatic calibration, raise/lower/trip bias, hard manual, both redundant outputs, LVDT feedback, alarms, tracking, and hydraulic travel under approved conditions.

Identity and release controls

Verification Status	VERIFIED_EXACT_CURRENT_MODEL_FUNCTION_AND_TECHNICAL_DATA

Official ABB sources

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 Product Catalog Rev E	https://library.e.abb.com/public/fa6c9b92b1ef4d9cba4acd211ba01e5b/2VAA005340%20en%20E%20Symphony%20Plus%20Product%20Catalog.pdf.pdf
ABB Symphony Plus lifecycle/evolution update - SPHSS13	https://library.e.abb.com/public/0e820d314f9e491380a1bfbf0e7073d1/04_Symphony%20Plus%20life%20cycle%20updates-Jim%20Day.pdf