

MANUFACTURER-SOURCE TECHNICAL REFERENCE

ABB SPFEC12

Product Reference

ABB SPFEC12 Symphony Plus HR Series 15-Channel Analog Input Module

DOCUMENT SCOPE

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

Product / lookup identity	ABB SPFEC12
Reference number	SPFEC12
Document basis	Published ABB product records, PDFs, and manuals listed on page 3



Product page

<https://www.apterpower.com/ABB/spfec12>
Apter Power contact

sales13@apterpower.com | +86 180 3023 5313

Product role and published parameters

WHAT IT IS, WHAT IT DOES, AND WHERE IT FITS

ABB SPFEC12 is a Symphony Plus HR Series analog input module that processes 15 high-level analog field signals. The module accepts 4 to 20 mA current and 1 to 5 VDC, 0 to 1 VDC, 0 to 5 VDC, 0 to 10 VDC, and -10 to +10 VDC voltage inputs. System context: ABB SPFEC12 Symphony Plus HR Series 15-Channel Analog Input Module.

Published field	Manufacturer-published value or verified identity note
Channels	15 independently configured analog inputs
Resolution	14 bit
Current input	4 to 20 mA
Voltage inputs	1 to 5, 0 to 1, 0 to 5, 0 to 10, and -10 to +10 VDC
Power	5 VDC +/-5% at 85 mA typical; +15 VDC +/-5% at 25 mA typical; -15 VDC +/-5% at 20 mA typical
Power dissipation	1.1 W typical
Ambient	0 to 70 deg C

System function and signal path

01	System Inputs: Fifteen individually configured high-level analog inputs: 4-20 mA and the documented voltage ranges.
02	Processing: 14-bit analog input conversion and controller-facing I/O processing over the Harmony Rack architecture.
03	Outputs: Digitized process values to the controller; no analog output channels are documented for SPFEC12.
04	Communications: I/O Expander Bus to the rack controller; no HART/FSK support is documented for SPFEC12.

Applications, answers, and official sources

1 Process transmitter acquisition: Collects pressure, flow, level, and other 4–20 mA transmitter signals.

2 Standard voltage measurements: Accepts the documented unipolar and bipolar voltage ranges.

3 Power and utility process I/O: Provides multi-channel analog acquisition in Symphony Plus HR rack systems.

4 Legacy rack I/O expansion and evolution: Supports installed Harmony/INFI 90 rack architecture with a documented AI12ev evolution path for the FEC family.

Frequently asked questions

What is ABB SPFEC12?	It is a 15-channel high-level analog input module for Symphony Plus HR Series.
What is its resolution?	ABB specifies 14 bit.
Which current signal is supported?	4 to 20 mA.
Which voltage ranges are supported?	1–5, 0–1, 0–5, 0–10, and –10 to +10 VDC.
Can channels be configured independently?	Yes. ABB states that all 15 channels are independently configured.
Which termination unit is used?	NTAI05.

Official ABB sources

ABB Ability Symphony Plus Product Catalog Rev G	https://library.e.abb.com/public/67f6b20f64d0443da36258e62a597791/2VAA005340%20en%20G%20Symphony%20Plus%20Product%20Catalog.pdf
ABB SPFEC12 product record	https://new.abb.com/products/SPFEC12/spfec12
ABB Harmony Rack I/O Product Overview WBPEEUS240011B1	https://library.e.abb.com/public/429d55ddf7c18f3ec1256d12005fbd8a/WBPEEUS240011B1_-_en_Harmony_Rack_I_O_Product_Overview.pdf
ABB Users Group Anchorage Harmony evolution mapping	https://library.e.abb.com/public/68e694fd1f5743ba949fbae1859ee3ac/02%20ABB%20Users%20Group%20Anchorage%20Harmony.pdf