

PFEA111-20 3BSE050090R20

Tension Electronics — complete exact-model product record

Product identity

ABB PFEA111-20 3BSE050090R20 is an IP20 tension-electronics unit for Pressductur web-tension measurement systems. It excites two supported load-cell inputs and provides configurable voltage and current outputs for control or indication.

Engineering boundary

PFEA111-20 uses a nominal 24 VDC supply with an 18-36 VDC working range and accepts two load-cell inputs. Preserve zero, wrap-gain, filtering and output-scaling settings during service.

CAPABILITY 1

Excites and reads two supported Pressductur load-cell inputs.

CAPABILITY 2

Provides scaled 0-10 V and 4-20 mA tension outputs.

CAPABILITY 3

Supports zero setting, wrap-gain adjustment and selectable output filtering.

MANUFACTURER EVIDENCE BASIS

- ABB PFEA111 product page
- ABB PFEA111/112/122 user manual 3BSE029380R0201
- ABB Web tension systems catalog 3BSE030912R0401

External manufacturer URLs are intentionally omitted from this document.

CAPABILITY 4

Uses guided fast setup or complete setup for controlled commissioning.

Technical data matrix

Verified product parameters without trade or logistics data

Product type	PFEA111-20 tension electronics	Load-cell excitation	0.5 A rms at 330 Hz
Enclosure version	IP20, unsealed	Voltage output	0-10 V; range -5 to +11 V
Order number	3BSE050090R20	Current output	4-20 mA; range 0-21 mA
Supply	24 VDC nominal; 18-36 VDC working range	Output response	15 ms step response; 35 Hz bandwidth
Power consumption	8 W at 24 V	Extra output filters	30, 75, 250, 750 or 1500 ms
Load-cell inputs	2	Wrap-gain adjustment	0.5-20
Input impedance	10 kOhm	Setup methods	Fast setup or complete setup

Data discipline

Only exact-model manufacturer-supported parameters are included. Trade, logistics, weight and dimensional fields are intentionally excluded.

Applications and workflow

Four engineering uses paired with field-control steps

Web-tension measurement

Conditions signals from supported ABB load cells in a measuring-roll tension system.

Two-load-cell roll setups

Accepts two load-cell inputs for the documented standard-roll measurement arrangement.

Analog control output

Provides scaled voltage or current output for the connected control and indication functions.

Commissioned tension scaling

Retains zero, nominal-load, wrap-gain and filtering values for the installed machine.

Exact identification

Confirm PFEA111-20 and order number 3BSE050090R20 rather than another PFEA variant.

Maintenance state

Isolate the approved 24 VDC supply and every connected control circuit before rewiring.

Configuration capture

Record both load-cell connections, signal polarity and actual zero before removal.

Independent acceptance

Retain the completed commissioning record with the machine acceptance result.

Questions and precautions

Model-specific support topics and release controls

What is ABB PFEA111-20 3BSE050090R20?

It is the IP20 version of ABB PFEA111 tension electronics for supported Pressductur web-tension systems.

PRECAUTION 1

Confirm PFEA111-20 and order number 3BSE050090R20 rather than another PFEA variant.

PRECAUTION 2

Isolate the approved 24 VDC supply and every connected control circuit before rewiring.

Which supply does ABB PFEA111-20 3BSE050090R20 require?

It uses nominal 24 VDC with a documented working range of 18-36 VDC.

PRECAUTION 3

Record both load-cell connections, signal polarity and actual zero before removal.

PRECAUTION 4

Save object type, nominal load, wrap gain, output scaling and all filter values.

How many load-cell inputs does ABB PFEA111-20 3BSE050090R20 provide?

It provides two load-cell inputs with 10 kOhm input impedance.

PRECAUTION 5

Keep the 24 VDC supply isolated from the AC mains as required by the ABB manual.

PRECAUTION 6

Check supply voltage and cabling before performing fast setup or complete setup.

Which analog outputs are available on ABB PFEA111-20 3BSE050090R20?

The unit provides a 0-10 V voltage output and a 4-20 mA current output.

PRECAUTION 7

Verify load-cell polarity and function before relying on the scaled analog outputs.

PRECAUTION 8

Retain the completed commissioning record with the machine acceptance result.

Sources, related products and contact

A traceable handoff for engineering review and procurement support

VERIFIED RELATED ABB PRODUCT PAGES

01	ABB BC810K01 3BSE031154R1 Open verified ApterPower page	02	ABB TB811 3BSE008568R1 Open verified ApterPower page
03	ABB CI857K01 3BSE018144R1 Open verified ApterPower page	04	ABB PM866K01 3BSE050198R1 Open verified ApterPower page
05	ABB CI854AK01 3BSE030220R1 Open verified ApterPower page	06	ABB CI830 3BSE013252R1 Open verified ApterPower page
07	ABB CI840A 3BSE041882R1 Open verified ApterPower page	08	ABB CI801 3BSE022366R1 Open verified ApterPower page

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