

- *For standard unwind and rewind applications.*
- *Easy installation, quick set-up and user-friendly interface.*
- *Unique push of a button patented Autotuner function for optimum settings of the PID-parameters.*
- *Advanced functions such as inertia compensation to prevent over running on unwinding and slack web on winding and adaptive control to adopt to process changes.*
- *A complete solution for your Pressductor® based load cells.*



PFEA 101 Controllers – the easy way to take control of your tension

Wouldn't you like to forget all about how your tension controller operates? All those constant adjustments for fluctuation in tension. For once just sit back and let things work as they were supposed to.

Let ABB's Tension Controller put your concerns to rest. The controller maintains uniform web tension in a closed loop control system for unwind and rewind applications. The unit can be interfaced with a variety of torque output devices to control brakes, clutches and motors. And in combination with Pressductor® based load cells you get a package that won't let you down.

Setting application parameters

Setting application parameters such as inertia compensation, brake hold values can be done on the display during startup. The controller is factory set and ready to run.

Autotuner

The autotuner is used for automatic setting of the PID parameters. After tuning, control parameters are determined and stored automatically. If the process changes, the system can be re-tuned.

ABB Tension Controller

Type: PFEA 101

Power supply

AC 115/230 V AC $\pm 10\%$, 50-60 Hz,
20 VA or 19 V AC $\pm 10\%$,
50-60 Hz, 1 A
DC 24 V DC $\pm 10\%$

Digital Inputs

Type 24 V DC, common digital input
ground, current sink, opto-isolated

Analogue Inputs

Input ranges 0-20 mA, 4-20 mA, 0-5 V, 1-5 V,
0-10 V, 2-10 V

Input impedance Current 250 Ω , Voltage 200 k Ω

Functions First-order software filter,
linear/square root

Resolution 12 bits

Digital Outputs

Type 24 VDC, current source

Load current Max. 250 mA per output,
max. 500 mA total

Short-circuit current Max. 500 mA transient
current during 1 ms

Analogue Outputs

Output ranges 0-20 mA, 4-20 mA

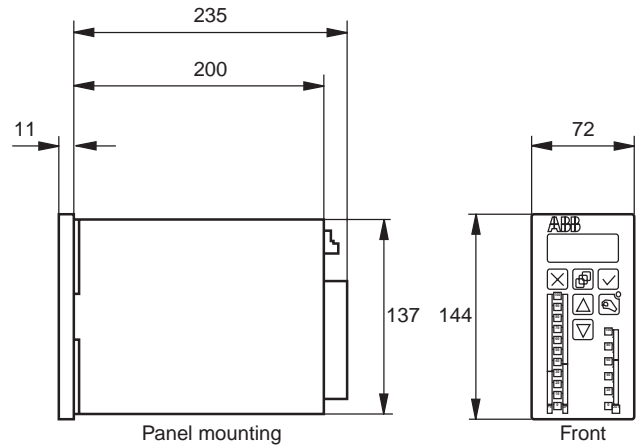
Max. output current 22 mA

Load resistance on current output
Max. 650 Ω

Short circuit protection Yes

Resolution 12 bits

Output signal break detection Yes



Operator Interface

Display Backlit LCD with 120 \times 32 pixels

Bar graphs LED, Actual tension, Tension set
point, Controller output

Keys Six keys: Cancel, Page, OK, Hand,
Increase and Decrease

Environmental specifications

Operating temperature
+5-+55°C (IEC 68-2-1/2)

Electrical Environment
Fulfils Electro Magnetic Compati-
bility, EMC, directive 89/336/EEC

Typical installation of an unwind application

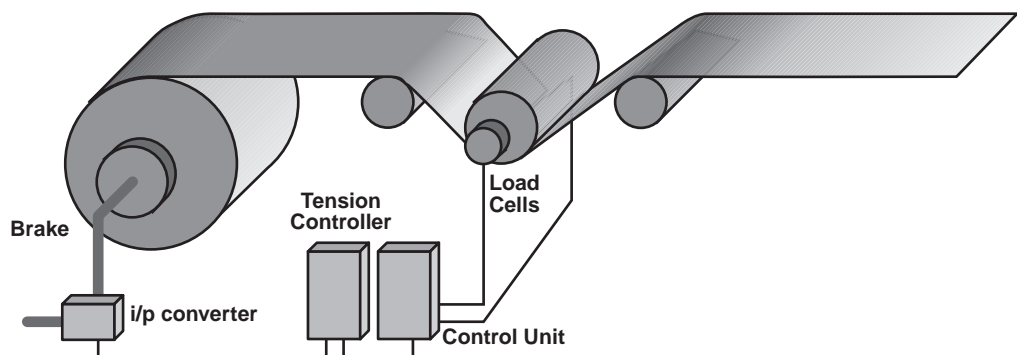


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