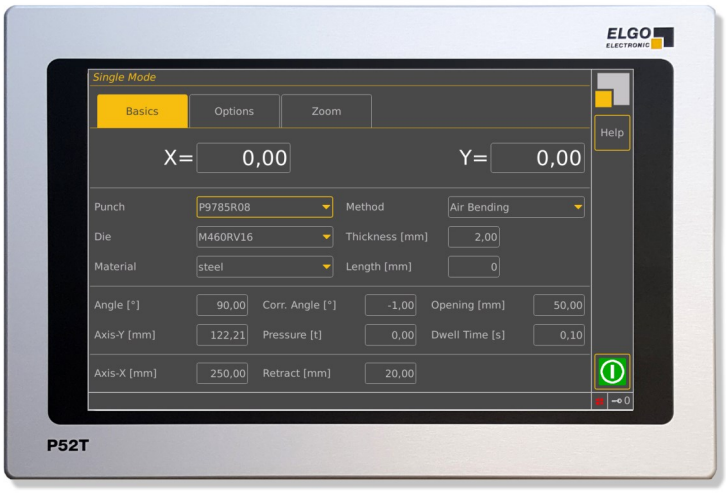
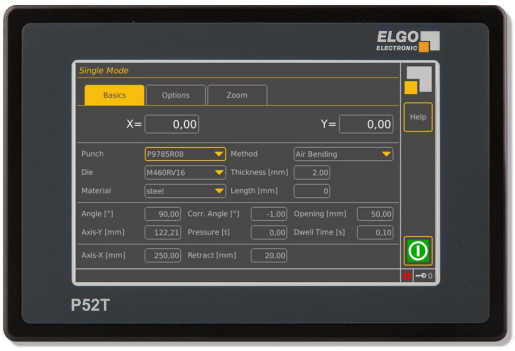
SERIES *P52-002*

Compact 4 axes CNC controller with touchscreen
Customized version for press brake applications



10,1“ TFT



7“ TFT

- Controller for max. 4 axes (Y1, Y2 + 2 auxiliary axes)
- Selectively with 7“ or 10.1“ widescreen colour TFT
- Navigation via high-quality resistive touchscreen
- External control panel with keypad available
- Proven algorithms for controlling the Y axes
- Library for tools, material and products
- Quick and easy programming
- Crowning control 1possibility
- Panel based construction
- USB interface

P52-002 - Compact 4 axes CNC controller with touchscreen

Product description:

The compact ELGO CNC controller ***P52-002*** is a cost-effective solution, which has been specially designed for a wide range of press brake applications. The unit is equally suitable for conventional and synchronized press brakes. Due to the user-friendly interface, all essential requirements of modern press brakes can be fulfilled.

The clearly structured monitor, indicates all important bending parameters at a glance. Further parameters for advanced users can be displayed on an additional page. The controller already provides important functions, e. g. Y-axis angle programming, pressure and crowning control.

By using the integrated USB interface it is possible to transfer data backups from product or tool profiles to an external data medium (e.g. USB stick or external hard disk).

Equipment properties:

Standard:

- Conventional and synchronized press brake control
- Selectively with 7“ or 10,1“ colour TFT
- Other designs can be realized on request
- Easy-to-use touchscreen technology
- High storage capacity 4 GB
- Data import/export via USB
- Tool library

Versions:

- All-in-One CNC system, consisting of a controller with an integrated touchscreen panel
- Decentralized CNC system, consisting of a controller with a separate touchscreen panel

Options:

- External control panel with membrane keypad
- Additional auxiliary axis

Flexible machine design:

For the flexible design of the respective brake press, two different monitor sizes (7" or 10.1") with the same functional scope are available.

- Both versions (7" and 10.1") can be supplied either as a compact all-in-one system or as a decentralized system (controller unit with I/Os and touchscreen panel separately). With the decentralized variant, both components can be integrated separately into the control cabinet. In this case, the touchscreen panel will be installed into the panel cut out and the external controller is snapped onto a DIN rail. This makes sense if there is only a little space behind the front panel of the control cabinet.
- Both versions (7" and 10.1") can optionally be extended by an external control panel with a membrane keypad, which can arbitrarily be placed beside, above or under the controller unit.
- Images and further information can be found on last page.

Dimensions:

Touchscreen panel with 7“ display:	Touchscreen panel with 10“ display:	External controller (decentral)
W x H = 216 mm x 144 mm	W x H = 286 mm x 194 mm	W x H = 192 mm x 132 mm
Depth = 32 mm (decentral version) 70 mm* (All-in-One version)	Depth = 40 mm (decentral version) 72 mm* (All-in-One version)	Depth = 54 mm*
Cut out: 196 mm x 134 mm	Cut out: 266 mm x 182 mm	

*) without connectors

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Technical data:

Touchscreen panel	
Power supply voltage	24 VDC +10% / -20%
Consumption	max. 200 mA (no load), permitted total current 1 A (without outputs)
Connection type	Pluggable screw terminals
Display	7“ Widescreen touch TFT or 10.1“ Widescreen touch TFT
Resolution	7“ version: 800 x 480 pixels 10.1“ version: 1280 x 800 pixels
Hardware / Software	ARM Cortex A8, 1 GHz clock frequency, 512 MB RAM, 4 GB Flash, Linux operating system
Miscellaneous	- Serial RS232 interface - Keypad panel (option) connectable via USB - Ethernet interface
Mounting „All-in-One“	Panel installation
Mounting „Decentral“	Panel installation (touchscreen panel) and DIN rail mounting (controller with I/Os)
Operation temperature	0 … +45° C
Storage temperature	-20 … +50° C
Controller	
Power supply voltage	24 VDC +10% / -20%
Consumption	max. 400 mA (no load)
Connection type	Pluggable screw terminals
Encoder supply voltage	4 x (6 x) 24 VDC or 5 VDC; max. 130mA
System accuracy	± 1 increment
Analog inputs	4 x ±10 V, 12 Bit
Analog outputs	2 x ±10 V with control for hydraulic axes 2 x (4 x) ±10 V with PID control 4 x 10 V reference value for measuring systems (max. 20mA, short circuit proof)
Digital inputs	16 galvanically isolated inputs, freely programmable, pulse time min. 300 ms
Digital output	16 galvanically isolated outputs, freely programmable, max. 0.625 A each output, freewheeling circuit for inductive loads, durable short circuit proof
Input frequency	max. 100 kHz
Hardware / Software	32 Bit Microcontroller with 1MByte Flash and 128 kB RAM, real-time operating system, see www.freeRTOS.org
Miscellaneous	Serial RS232 interface
Operation temperature	0 … +45° C
Storage temperature	-20 … +50° C

Functional overview:

Controller functions:

- ±10 V Servo control
- ±10 V frequency inverter control
- ±10 V proportional valve control Y1/Y2
- 0 … 10 V pressure valve control

Computed functions:

- Immersion depth
- Press force
- Crowning adjustment
- Safety zones for tooling

Programmable functions:

- Measurement unit Millimeter / Inch
- Arbitrary number of dies & punches
- Arbitrary number of programs
- Program name with 30 digits
- 999 steps per program
- Step repetition up to 999
- Stock counter up to 9999
- Material properties

Configurations for back gauge:

- X / R
- X / Z
- X1 / X2

Miscellaneous functions:

- Diagnostic tool
- Error messages
- Selectable languages
- Safety PLC interface

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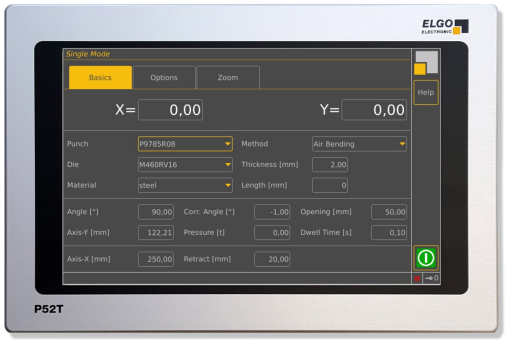
10.1“ versions:

„All-in-One“



Controller and touchscreen panel in one device

„Decentral“

Touchscreen panel as shown above + external controller unit with I/Os for DIN rail mounting

7“ versions:

„All-in-One“

Controller and touchscreen panel in one device

„Decentral“

Touchscreen panel as shown above + external controller unit with I/Os for DIN rail mounting

Hardware options:

External control panel with membrane keypad (216 mm x 144 mm)

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