

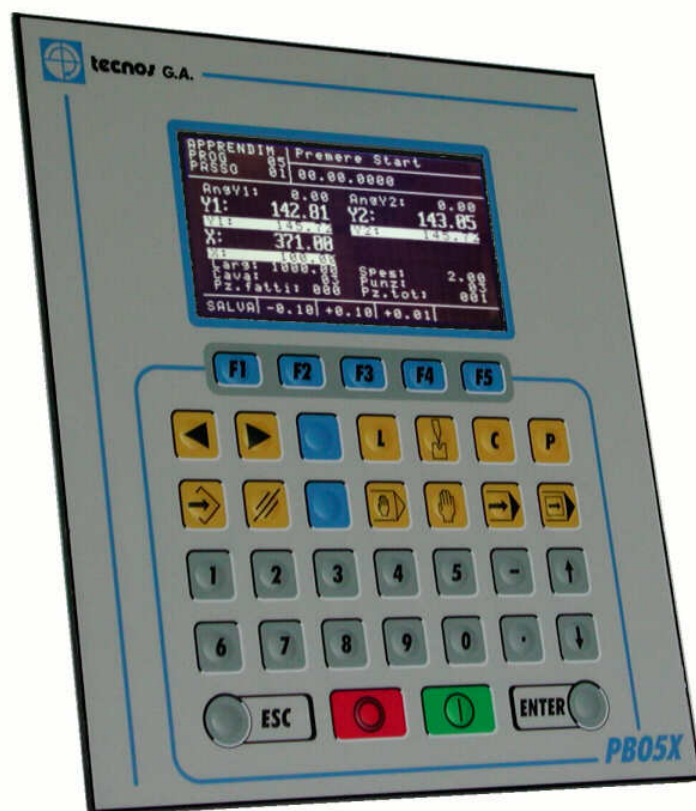
# PB05X Numeric Control

The Numeric Control PB05X dedicated to the pressbrake machines and it has been designed to equip machines that must be easy to use and provide complete programming data with guided input. For the operator, this means being able to set the optimal working cycle in the shortest possible time with the help of intuitive menus, like the PUI.

The high protection makes PB05X ideal for the "toughest" workshop environments. The keys have been designed so that they are touch-sensitive even when the operator is wearing working gloves.

Particular care was taken in the selection of the components to ensure brightness and contrast of the display. The PB05X is realized with UR05X. The product can be used in integrated mode ( the control is mounted behind the panel ) or in remotated mode, with a maximum distance of 3 mt.

UR05X include serial communications, CAN field bus, control of up to 3-5 axes, and I/O modularity on Tecnos local bus (BLT) or CAN. The CPU used is a Motorola 40 MHz ColdFire. The CN has one idraulic axis board and one PWM idraulic servo drive board to assemble separated on DIN bar.



Cod. H3CN05XXXXX

CHARACTERISTICS	DESCRIPTION	NOTES
	<b>GENERALS</b>	
Dimensions (LxHxD)	257mm x 227mm x 90mm	Without connector
Installation	Panel	
Weight (plus DIN bar hook)	approx. 1000gr	
Operating environment	Industrial	
Protection class	IP54	
Operating temperature	From 0° to 50°C	
Operating humidity (without condensate)	≤75%	
Max operating altitude	2000mt	
Monitor	- Display B/W graphic 128x240	
Keyboard	Industrial impermeable	34 keys 5 fuctions keys

CHARACTERISTICS	DESCRIPTION	NOTES
<b>ELECTRICAL</b>		
Supply voltage	DC 18-30V AC 15-24V	-
Absorption	To be defined	-
Buffer battery	VL2320 - 3 V	-
Encoder power supply	+5V / +12V (Line driver / Open collector)	- Internal power supply
Analog outputs	±10V 12-bit	-
<b>INTERFACCE</b>		
Serial	2 RS232 lines	- On DB9
Field bus	1 CANOpen line	- DSP-DS301/401 communication protocol - on 5-pin connector
Local bus	1 line for local control of 48 inputs/outputs	-
Encoder inputs	3 encoder inputs +5/+12V Line driver - Open collector	
data leech inputs	3 inputs for PNP position connection	
Limit switch inputs	3 digital inputs as limit switches	
Integrated optoisolated digital inputs	16 inputs: $V_i < 10V=0$ $V_i > 15V=1$	-on two 10-pin connectors
Integrated optoisolated digital outputs	16 MOS digital outputs $I_u \leq 0.2A$ per channel total $I_{u_{max}} < 3^\circ$	- on two 10-pin connectors
Analog Outputs	3 analog outputs +/- 10V 12-bit on serial DAC	
<b>CPU</b>		
Microprocessor	Motorola MCF5206E with 40MHz clock	-
Working memory	Flash EPROM 1MB, parallel. 16-bit RAM 1MB 16-bit buffered	- Buffered
<b>AXES</b>		
MAX number of axes controllable	3	
Encoder interface	Line driver, Open collector 5/12V	- Configurable with jumpers
Encoder count	500 KHz with multiplication by 4	-
Real Time	6 msec with PLC scanning time programmable from the application	-
Analog reference	±10 Volt	- 12-bit resolution with mark
Limit switch inputs	1 per axis	-
In-flight position connection inputs	1 per axis	-
Axis Monitoring	- Axis disable in case of error - Software limit control - Tracking error control	
Drive Control	- Motion control on individual axis - Possibility of in-flight position connection for high-precision mode	- Based on fully-developed PID
Axis performance	- Automatic axis offset connection - Positioning with trajectory control - Linear and circular interpolation - Automatic interpolation speed adjustment on the connectors and direction change - S-ramp - Electrical axis (Gantry)	- Possibility to define the working plane in the space
<b>SOFTWARE</b>		
- PUI	- For the creation of automation applications	
<b>EXPANSIONS</b>		
Tencos Module on BLT	Digital inputs, Digital outputs, Relay outputs, D/A converter module, A/D converter module,	Maximun number of I/O: 48IN+48OUT
CAN-BUS coupler module	- 18 VAC / +24VDC power supply - Absorption: 60 mA - Output voltage: +24 VDC 300 mA	- The maximum number of inputs/outputs controllable by the CANOpen Node are 64 inputs plus 64 outputs mixable over 8 x 8 modules. - Remote connection via CANOpen