

# PB05X

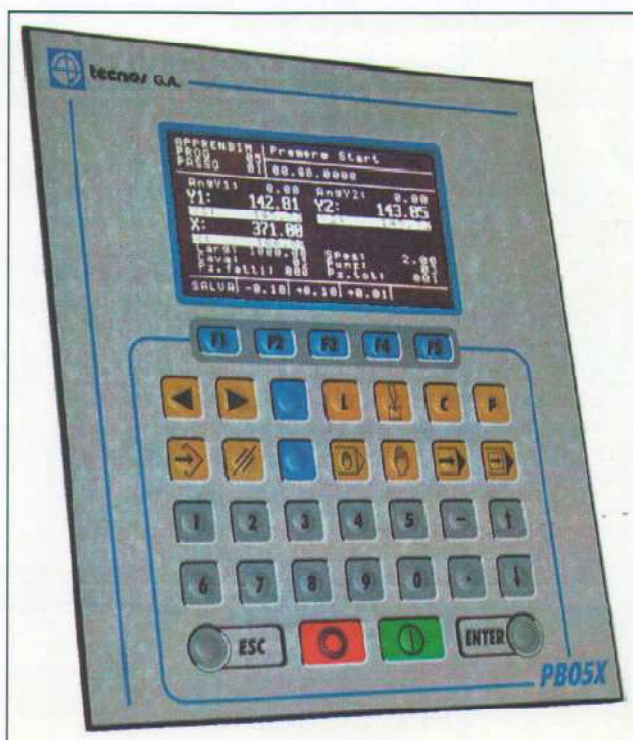
## NUMERIC CONTROL

The Numeric Control PB05X dedicated to the pressbrake machines and it has been designed to equip machines those 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 remoted 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 Tecno local bus (BLT) or CAN. The CPU used is a Motorola 40 MHz ColdFire. The CN has one hydraulic axis board and one PWM hydraulic servo drive board to assemble separated on DIN bar and the possibility to management till 2 integrated positionater on CAN BUS, for the backgauge axes.



### GENERAL FEATURES

FEATURES	DESCRIPTION	NOTES
Sizes	257mm x 227mm x 90mm	Without connectors
Installation	On panel	
Weight (plus DIN bar hook)	Approx. 1000g	
Operating environment	Industrial	
Protection class	IP54	
Operating temperature	From 0° up to 50°	
Operating humidity (without condensate)	≤ 75%	
Max operating altitude	2000mt	
Monitor	B/W display graphic 128x240	
Keyboard	Industrial impermeable	34 keys, 5 function keys



**ELECTRICAL FEATURES**

FEATURES	DESCRIPTION	NOTES
Supply voltage	DC 18-30V; AC 15-24V	
Absorbed power	To define	
Buffer battery	VL 2320 - 3V	
Encoder power supply	+5V / +12V (Line driver /Open collector)	Internal power supply
Analog outputs	±10V 12 bit	

**INTERFACES**

FEATURES	DESCRIPTION	NOTES
Serial	2 RS232 lines	On DB9
Field bus	1 CANOpen line	- Communication protocol DSP-DS301/401 - On 5 poles connector
Local bus	1 line for local control of 48 inputs/outputs	
Encoder inputs	3 +5V / +12V Line driver /Open collector encoder inputs	
In-flight position connection inputs	3 PNP inputs for PNP position connection	
Optoisolated limit switch inputs	3 digital inputs as limit switch	
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 - 1,0,2A for each channel - $I_{umax total} < 3^{\circ}$	On two 10-pin connectors
Analog Outputs	3 +/-10V 12 bit analogic outputs on serial DAC	

**CPU**

FEATURES	DESCRIPTION	NOTES
Microprocessor	Motorola MCF5206E with 40Mhz clock	
Working memory	- Flash EPROM 1MB, parallel 16 bit - RAM 1MB 16bit	Buffer

**AXES**

FEATURES	DESCRIPTION	NOTES
Max no. axes	Up to 5	
Encoder interface	Line driver, Open collector a 5/12V	Adjustable
Encoder counting	500KHz with multiplying factor 4	
Real time	6msec with programming PLC scanning time	
Analogic reference	±10V	12bit and sign resolution
Limit switch inputs	1 for each axis	
Axis checking	- Axis disactivating if there is an error - Limit switch managing	
Moving checking	- Moving checking on each axis	
Axis performances	- Positioning with trajectory checking - Linear and circular interpolation - Automatic adjustment of interpolation speed on unions and change of direction - S slope - Interpolation with two C axes for tengency cutting - Electric axis (Gantry)	

**SOFTWARE**

FEATURES	DESCRIPTION	NOTES
PUI	To developpe automation application	

**EXTENSIONS**

FEATURES	DESCRIPTION	NOTES
Tecnos modulus on BLT	Digital inputs/outputs, relay outputs, D/a or A/D converter modulus	I/O max no.: 48IN+48OUT
CAN-BUS couplet modulus	- 18Vac/+24Vdc power supply - Absorbed power:60mA - Output voltage: +24Vdc 300mA	- Nodo CANOpen is able to manage 64IN+64OUT maximum - Remote connection through CANOpen

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