OPEN-M, OPEN-L, OPEN-XL

The OPEN*control* product range is based on several powerful hardware platforms. The highly scalable systems have performance that increments with models **OPEN-M**, **OPEN-L** and **OPEN-XL**. They can be provided with various types of axes cards for controlling digital servo-drives. The PCI cards, implementing the most modern Ethernet-based fieldbus, allow management of a wide range of devices.

OPEN-M can be used standalone, but the configurability of the software allows an easy integration in a TCP/IP network to be connected with external PCs dedicated to the End User interface.
With the same ease the SW can be configured to run Windows CE only (the real time O.S. adopted by OPEN*control* family*)* or both Windows CE and Windows Embedded Standard simultaneously (Dual Operating System) to execute applications from the market and the real-time CNC software on the same hardware.
The Intel Celeron-M 1.5 GHz CPU provides the computing power needed for complex applications.

OPEN-L has the same technical features of OPEN-M, but with greater CPU computing power, which allows to achieve those complex and time-critical applications where the workload is particularly high to be managed.

OPEN-XL is the highest performing product of the OPENcontrol family adopting a **Dual Core** CPU particularly suited for the Dual Operating System configuration. The ability of the CNC to isolate the execution of the operating systems by assigning to each one a Core, provides the CNC with the characteristics of very high speed coupled with graphical processing capabilities typical of Windows desktop versions.

The **OPEN*control*** OSAI products are based on sophisticated software allowing many powerful features including:

- **Multiple CNC Process** Management (up to 24 Processes).
- **Multitasking** Integrated-**PLC** execution with Windows based **ISO 6-1131-3** PLC programming environment.
- **WinNBI** software, a set of graphical tools for all development activities, commissioning and maintenance, through multi-CNC network connectivity with Ethernet.
- Multiple kinds of Interpolation and axes geometry: Linear, Circular, Helical, Master/Slave, **Electronic Cam**, **Gantry Axes**.
- Tool center point programming (**TCP**) and **High Speed cutting** algorithms.
- Configurable multi block **Look Ahead**.
- **Jerk control**.
- Complete **3D roto-translations**.
- **Volumetric** errors **compensation**.

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	OPEN-M	OPEN-L	OPEN-XL
CPU	Celeron M 1.5 GHz	Pentium M 1.8 GHz	Intel Core 2 Duo 2,26 GHz
Storage	Compact Flash 1 - 4 GB/SSD - 32 GB		
RAM	2 GB		
Monitor port	1x VGA 1x DVI		Dual VGA or VGA/DVI Independent Display
Ethernet	2x 10/100/1000 MHz		
USB	6 x USB 2.0		
PS/2	2x (keyboard and mouse)		1x PS/2 (keyb + mouse)
Serial Line	3x RS232 - 1x RS232/422/485		
Parallel port	-		1
Expansion Slot	2 x PCI 32 bit / 33 MHz		
Power Supply	24VDC		
Power Consumption	2.5 Amp at 24VDC		
Dimensions	195mm (W) x 268mm (D) x 101mm (H) (7.7" x 10.5" x 3.98")		
Housing	Aluminium chassis		
Operating system	Windows CE 6.0 or optional Dual Op. Sys. (Windows CE 6.0 + WES2009)		Dual Op. Sys.
Controlled axes	Max 32		Max 64
Primary Fieldbus	Mechatrolink III, Mechatrolink I/II, EtherCAT, OS-Wire, Sercos III, CANopen		
Secondary Fieldbus	EtherCAT, CANopen, Profibus		

	OS2005	OS2020	OS2011	Note
Primary BUS	Mechatrolink I/II or OS-Wire	Mechatrolink III or EtherCAT	Sercos III	
Secondary BUS (optional)	EtherCAT CANopen Profibus master Profibus slave	EtherCAT CANopen	EtherCAT CANopen Profibus master Profibus slave	
Analog Axis	1x 16bit Analog Out + 1x Inc. Encoder Input			Spindle or axis management
Analog Out	-	1x 16 bit	-	Spindle or general purpose
Analog In	2x 12 bit +/-10V (or 4÷20 mA on channel one)			General purpose
Fast Input	4 (or 3 + Touch-Probe)			Activate a PLC event task
Fast Output	3			Immediate Output
Power enabling	1 (digital out 24V)			Machine tool power off

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