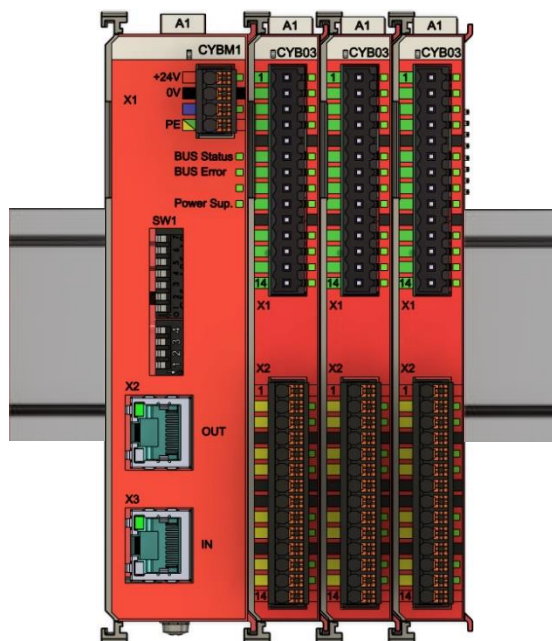




The CybIO system is an integral part of the Cybelec upper range of numerical controls:

- CybTouch 15 PS and CybTouch 15 PSe
- CybTouch 15PS Win
- VisiTouch Pac, VisiTouch Pac MX
- VisiTouch 24, VisiTouch 24MX
- Cybelec-Lynca

As part of the complete solution, the CybIO system provides optimum control of all types of machine:

Hydraulic press brakes:

- Proportional valves with feedback
- Open-loop proportional valves without feedback
- Proportional valves with integrated amplifier
- Servo valves

Hybrid press brakes

Electrical press brake

Laser cutting

Plasma cutting

The CybIO modules depending on configuration are multichannel valve amplifiers developed to operate simultaneously Y1, Y2 valves (any kind of hydraulic systems), one pressure valve and one crowning valve. Additionally, placed inside the electrical cabinet, they serve as interface to I/O and analog axes.

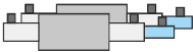
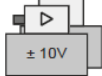
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Main features

- I/O system with CANopen and EtherCAT field bus interfaces for local or remote I/O level.
- Ultra-compact, slice based modular I/O system and high connection density.
- Application-oriented functions that result in lower device costs and make it possible to obtain the perfect system solution with a minimum space requirement.
- Sleek design and practical installation concept that make handling easier and allow users to pre-assemble their I/O systems.
- Plug-in connection system and clear signal assignment simplify commissioning and maintenance.

OVERVIEW TABLE OF AVAILABLE CONFIGURATIONS FOR PRESS BRAKE

	Proportional valves			Servo Valves	Hybrid / Electrical
	With Feedback (Hoerbiger valves) 	Without feedback 	With integrated amplifier (+/-10V analog command) 	Required MSV402/A module (50-300 mA) 	
Y1 + Y2 Pressure crowning	IOM-VA6C-1A IOM-ENC-2A		IOM-VA4V-1A	IOM-VA4V-1A	IOM-VA4V-1A
DI/DO	IOM-DI12O8-1A IOM-DI8O12		IOM-DI12O8-1A IOM-DI8O12	IOM-DI12O8-1A IOM-DI8O12	IOM-DI12O8-1A IOM-DI8O12
AI/AO	IOM-AI6O4-1A		IOM-AI6O4-1A	IOM-AI6O4-1A	IOM-AI6O4-1A
2 axis (Analog)	IOM-AXIS-2A		IOM-AXIS-2A	IOM-AXIS-2A	IOM-AXIS-2A

OVERVIEW OF MODULES FOR ALL TYPE OF MACHINES

CyblIO modules		ID label	Bus (RJ45)	Encoder inputs	Digital inputs	Digital outputs	Analog inputs (+/-10V)	Analog outputs (+/-10V)	Current outputs (2 or 4A)	LVDT
Field Bus coupler	IOM-CPU-6C	CP6C	2x CANopen	-	-	1	-	-	-	
	IOM-CPU-6E	CP6E	2x EtherCAT	-	-	1	-	-	-	
Digital Module	IOM-DI12O8-1A	D128		-	12	8	-	-	-	
	IOM-DI8O12-1A	D812		-	8	12	-	-	-	
Analog Module	IOM-AI6O4-1A	A64			-	-	6	4	-	
Counter/Encoder Module	IOM-ENC-2A	ENC2		2	8	-	-	-	-	
Axis Controller Module (2 axes)	IOM-AXIS-2A	AXS2		2	4	2	-	2	-	
Valve Amplifier Module	IOM-VA6C-1A	VA6C		-	1 Enable	-	-	-	6	2
	IOM-VA4V-1A	VA4V		2	1 Enable	-	-	2	2	

FIELD BUS COUPLERS CANOPEN AND ETHERCAT

IOM-CPU-6C (CANopen)

Power supply:	24V stabilized (24VDC -15%) 1,5A	
CAN BUS:	2x RJ45 (1x IN, 1x OUT)	
Auxiliary Digital output:	24VDC Nominal: 0,5A/Max 0,6A	
Address bus	Configurable with switches	
Bus speed	Configurable with switches 250kbps to 1 Mbps	
Line terminaison	Configurable with switches	

IOM-CPU-6E (EtherCAT)

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Ethercat BUS:	2x RJ45 (1x IN, 1x OUT)	
Bus speed	100 Mbps	
Auxiliary Digital output:	24VDC Nominal: 0,5A/Max 0,6A	

AXIS MODULE

IOM-AXIS-2A

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Axis	2	
Encoder inputs	2 5VDC or 12VDC or 24VDC with an external power supply. Complementary signal recommended	Résolution: 32bits Compatible PNP/NPN or TTL
Power supply for encoder	5VDC powered by encoder boards. Max 250mA for each encoder	
Digital inputs	6	24V
Digital outputs	4	24V Nominal current: 0,5A Maximum current: 0,6A
Analog output	2 +/-10V	

COUNTER/ENCODER MODULE

IOM-ENC-2A

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Encoder inputs	2 5VDC or 12VDC or 24VDC with an external power supply. Complementary signal is recommended	Résolution: 32bits Compatible PNP/NPN or TTL
Power supply for encoder	5VDC powered by encoder boards. Max 250mA for each encoder	
Digital Inputs	8	

DIGITAL I/O MODULES

IOM-DI12O8-1A

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Digital Inputs	12	24V
Digital Outputs	8	24V Nominal current: 0,5A Maximum current: 0,6A

IOM-DI8O12-1A

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Digital Inputs	8	24V
Digital Outputs	12	24V Nominal current: 0,5A Maximum current: 0,6A

ANALOG I/O MODULE

IOM-AI6O4-1A

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Analog Inputs	6 Input impedance max: $\geq 10k\Omega$	Voltage inputs: 0-10V or $\pm 10V$
Analog Outputs	4	Voltage Outputs: $\pm 10V$
Reference	10V. I max 50mA	

VALVE AMPLIFIER MODULES

IOM-VA6C-1A (Valve amplifier in current: 4A)

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Valve Y1 and Y2	4 AO: available for 4 solenoids. Max 4A/solenoid	<i>Configurable and optimized by adjusting specific parameters.</i>
Pressure and crowning	2 AO: available for 2 solenoids. Max 2A/solenoid	
LVDTA	+/- 10V or 0-12V	
LVDTEXC	±3-10V, Sinusoidal signal, 5kHz nominal	
+24V power	Output 24V to powered LVDT	

IOM-VA4V-1A (Valve amplifier in voltage: 0-10V)

Power supply:	24V stabilized (24VDC -15%) 1,5A	
Valve Y1 and Y2	2 AO: +/-10VDC	
Pressure and crowning	2 AO: available for 2 solenoids. Max 2A/solenoid	
Encoder	2	<i>Resolution 32bits</i>
Power supply for encoder	5VDC powered by encoder boards. Max 250mA for each encoder	

DIMENSIONS

Example with modules for pressbrake, Y1, Y2, 4 analog axis

