

## Numerical control

## VisiTouch 24 VisiTouch 24 MX

VisiTouch 24 is an outstanding numerical control for press brakes with a new solution all-in-one:

- Semi-compact control with a 24" modern streamlined glass surface full touch-screen and the CNC board mounted on the back of the screen.
- Full digital up to 24+2 electric axes with two CANopen® and one EtherCAT® field buses with wide configuration capabilities.
- Interface to all kind of hydraulic systems, I/O and analogue axes thanks to the CybMVA modules placed inside the electrical cabinet.



VisiTouch 24 numerical controls are available in two versions:

- VisiTouch 24 with 2D graphical profile drawing (Touch Profile) and 3D visualization
- VisiTouch 24 MX with import, program, visualization and simulation, all in 3D.

In addition to all the features available to control simple as well most sophisticated press brakes, hydraulic, electrical and hybrid, VisiTouch 24 offers also an open system allowing customization to be up to the Industry's 4.0 production management requirements.

## Main features

### For the User

Modern streamlined glass surface touch screen that can be used with gloves.

User-friendly HMI thanks to intuitive programming.

All kinematics available:

- For X, Xrelatives, Xslave, R, Rslave, and Z axes.
- For Back and Front multiples gauges.
- For bending aids.

Highest precision of bending thanks to sophisticated algorithms.

Tandem.

Tools import.

Group management for complex production.

Preliminary / Final bend.

Hemming management.

Running under Windows 10 for multitasking and networking.

Angle measurement.

Barcode reader.

Customizable Industry 4.0.

Housing with natural air vent cooling.

### For the OEM:

Set up with dedicated wizards (auto-tuning).

Axis control through CANopen® and EtherCAT® with wide configuration capabilities.

Customizable User Buttons for the machine operator.

Open system for customization.

Interactions with the beam through specific cycles to manage hybrid and electric press brakes.

Dynamic and regulated crowning cycles.

Plug-in for HMI part.

Communication protocol with arm robots for press brakes applications.

## Technical Characteristics – VisiTouch 24 and VisiTouch 24 MX

Display	
TFT screen	24" wide TFT 16:9
Resolution	1920 x 1080, 24 bits (Full HD)
Touch screen	Glass PCAP Multi-touch
Seal	IP65 - front side only, IP20 Housing
Handle	Included
Operating conditions	Min. 5° Celsius, max. 40° Celsius. If the ambient temperature approaches or exceeds 40° Celsius, it is advisable to install special ventilation, or even air-conditioning. Relative humidity (10 to 85% non-condensing).
EC Directives	IEC 61131-2

		2D	3D (MX)
Operating System		Windows 10	
Processor Unit	Model	Intel Atom x6413E Quad-Core @1,5 GHz Intel® UHD Graphics (Gen11 LP)	Intel Atom x6425E Quad core @2.00GHz
	Graphic RAM	8 GB de LPDDR4x DRAM	Intel UHD 10 <sup>th</sup> Gen Graphics 16 GB LPDDR4x RAM
	Cooling	32 GB eMMC Flash Passive Heat sink, Fanless	Passive Heat sink, FAN less
	Capacity	40 GB CFAST memory card SATA 16GB eMMC	40 GB CFAST memory card SATA 64 GB eMMC
Mass Storage			
Display Interface		DVI Up to 1920x1600, single-link DVI-D interface	
		LVDS Up to 1920x1200, dual channel LVDS mode 18bpp or 24bpp	
Communication		LAN 1x Gigabit Ethernet, RJ-45(10/100/1000)	
		USB 4x USB (1x USB 3.1, 3x USB 2.0)	
		1x USB 2.0 (dedicated to local Touch-Screen)	
		COM 1x RS-232C/RS-485 (D-sub 9-pin male, Data flow 115kbps)	
		Wi-Fi USB compatible	
		4G-5G USB compatible	
Operating temperature		0 - 40°C	
Power Supply (Numerical Control)		+24V <sub>dc</sub> @1.8A typ.(CN without I/O – X1 connector)	
Power Supply (Digital I/Os)		+24V <sub>dc</sub> @ 4A min.	
RTC – Calendar Clock		Battery Lithium CR2032 / 3V @225mA/h	
I/O Processor		ARM Cortex M7 series – STM32F765 @216MHz	
Digital Input		6 4mA typ. according to IEC61131-2 type 1 & 3 Isolation 2kV Filtering – debouncing and deglitching (by step of 250µs)	
Digital Output		4 0.5A typ. /0.7A max. according to IEC61131-2 type 3 Isolation 2kV Overvoltage and Short circuit protection Status – output in fault and no 24V IO power supply	
Fieldbus Interface		2 CANopen 1Mbps CAN 2.0 A, RJ-45, CANopen Master/Slave 1 EtherCAT 100Mbps EtherCAT, RJ-45, Master Stack	

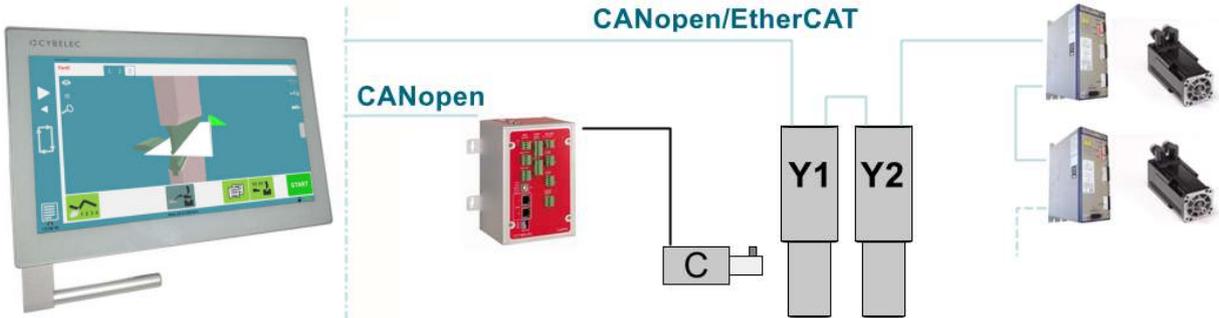
Extras	
CANopen Compatible Drives	Baumüller, Delta Electronics, Infranor, INVT, Schneider, etc.
Ethercat Compatible Drives	Delta Electronics, Infranor, Kollmorgen Europe GmbH, OMRON, Panasonic, Yaskawa Electric, SanyoDenki Co., etc.
Safety Systems Compatibilities	Fiessler, LazerSafe, Nuova Elettronica, Pilz3000, etc.
Angle Measurement Systems	Protractors: IBR, Mitutoyo DMX, Mitutoyo U-wave Real time Systems: DataM LaserCheck, Lazer Safe IRIS+, Wenglor, etc.
Tool Locators	WILA Smart Toll Locator, PB Service, etc.
Languages	Chinese (simplified and traditional), Czech, Dutch, English (reference language), Finnish, French, German, Italian, Polish, Portuguese (Brazil and Portugal), Russian, Slovenian, Spanish, Swedish, Turkish.

### Importing features per controllers

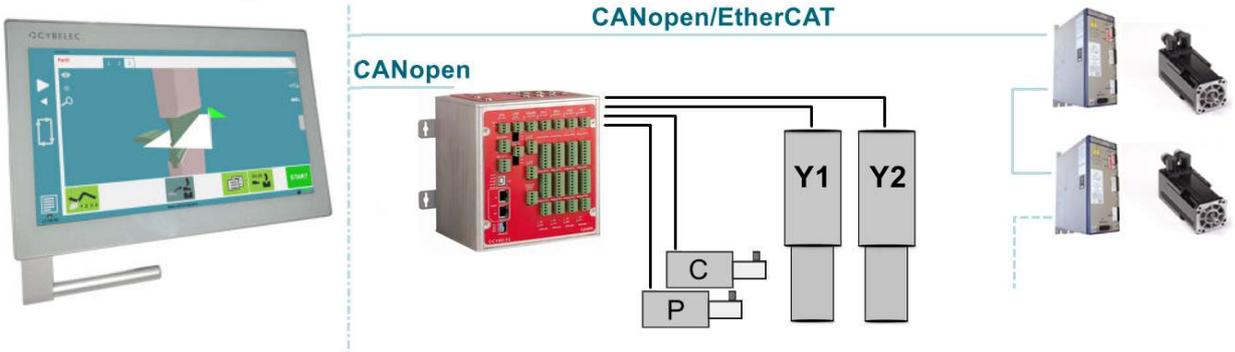
	VSP-94PS-MX	VSP-94PS-MXIMP	Mbend (sold directly by Metalix)
<b>Import</b>	DXF	DXF	DXF
	DWG	DWG	DWG
	MBCAM	STEP	STEP
		IGES	IGES
		MBCAM	MBCAM
		Parasolid (X-T or X_B)	Parasolid (X-T or X_B)
		SCPX	SCPX
<b>Export</b>	DXF (optional with OFT-EXP)	DXF (optional with OFT-EXP)	SLDPRT (optional)
			3D multi machine
			License Server (multi stations)
			possibility to link with other Metalix Products

## Typical machine configurations – VisiTouch 24 controls and CybMVA modules

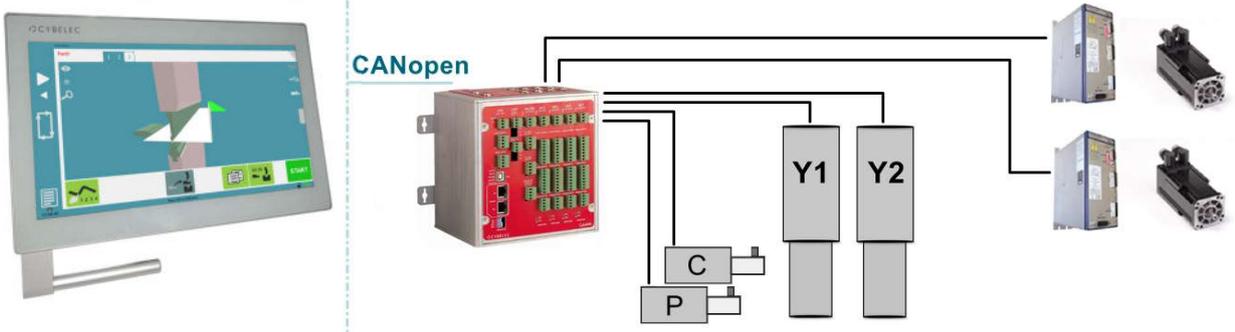
### FULL DIGITAL axes configuration for hybrid and electric press brakes



### DIGITAL electric axes configuration for hydraulic press brakes

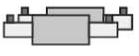
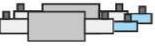


### ANALOG electric axes configuration for hydraulic press brakes

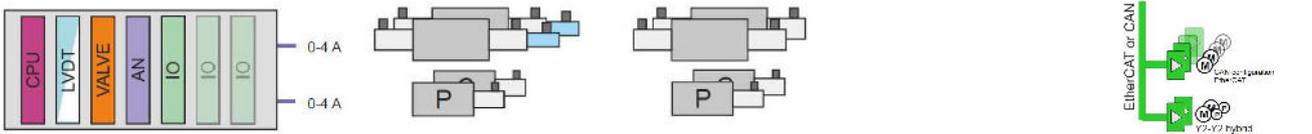


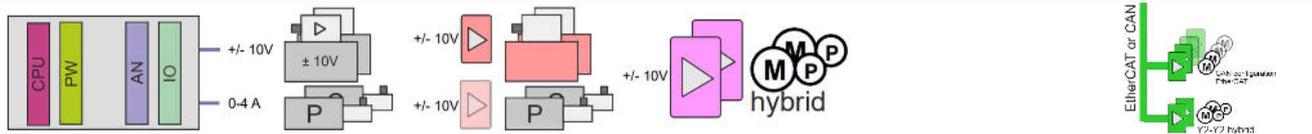
## CybMVA modules configurations

For detailed technical characteristic, please refer to the CybMVA datasheet. For machines with more than 4 axes, any additional electric axes on the CybMVA modules require an additional axis license on the VisiTouch 24.

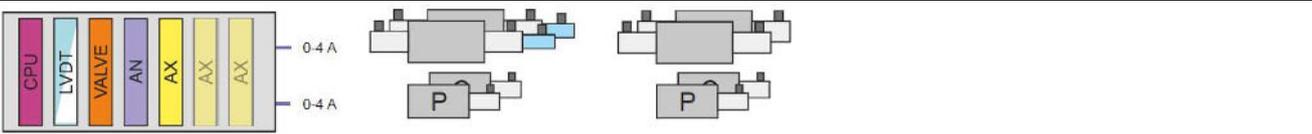
	prop. valve without feedback		Pressure valve Crowning valve
	prop. valve with feedback		MVP 100/A (valve amplifier)
	prop. valve with integrated amp. (+/- 10V analog command)		MSV 402/A (servo-valve amplifier)
			servo-valve 50-300 mA

### For machines with digital axes (EtherCAT or CANopen)

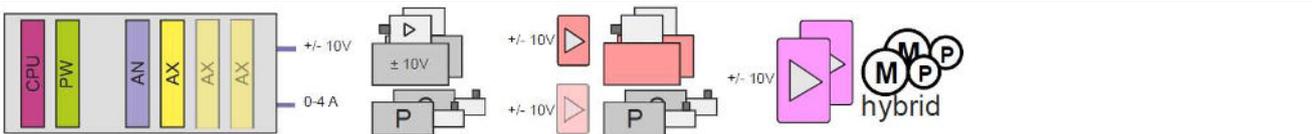
Y1, Y2 amplifier for proportional valves with and without feedback and I/O									
									
CybMVA	Y1-Y2	Digital In	Digital Out	Analog In	Analog Out	Enc In	Y (4A)	P+C (4A)	LVDT
MVA-FD2	Yes	19	19	4	4	2	4	2	2

Y1, Y2 (+/-10V) with proportional valves with integrated Amplifier/Servo Valves/hybrid machines and I/O									
									
CybMVA	Y1-Y2	Digital In	Digital Out	Analog In	Analog Out	Enc In	Y (4A)	P+C (4A)	LVDT
MVA-AD2	Yes	19	19	4	4	2	-	2	-

### For machines with proportional valves and analog axes

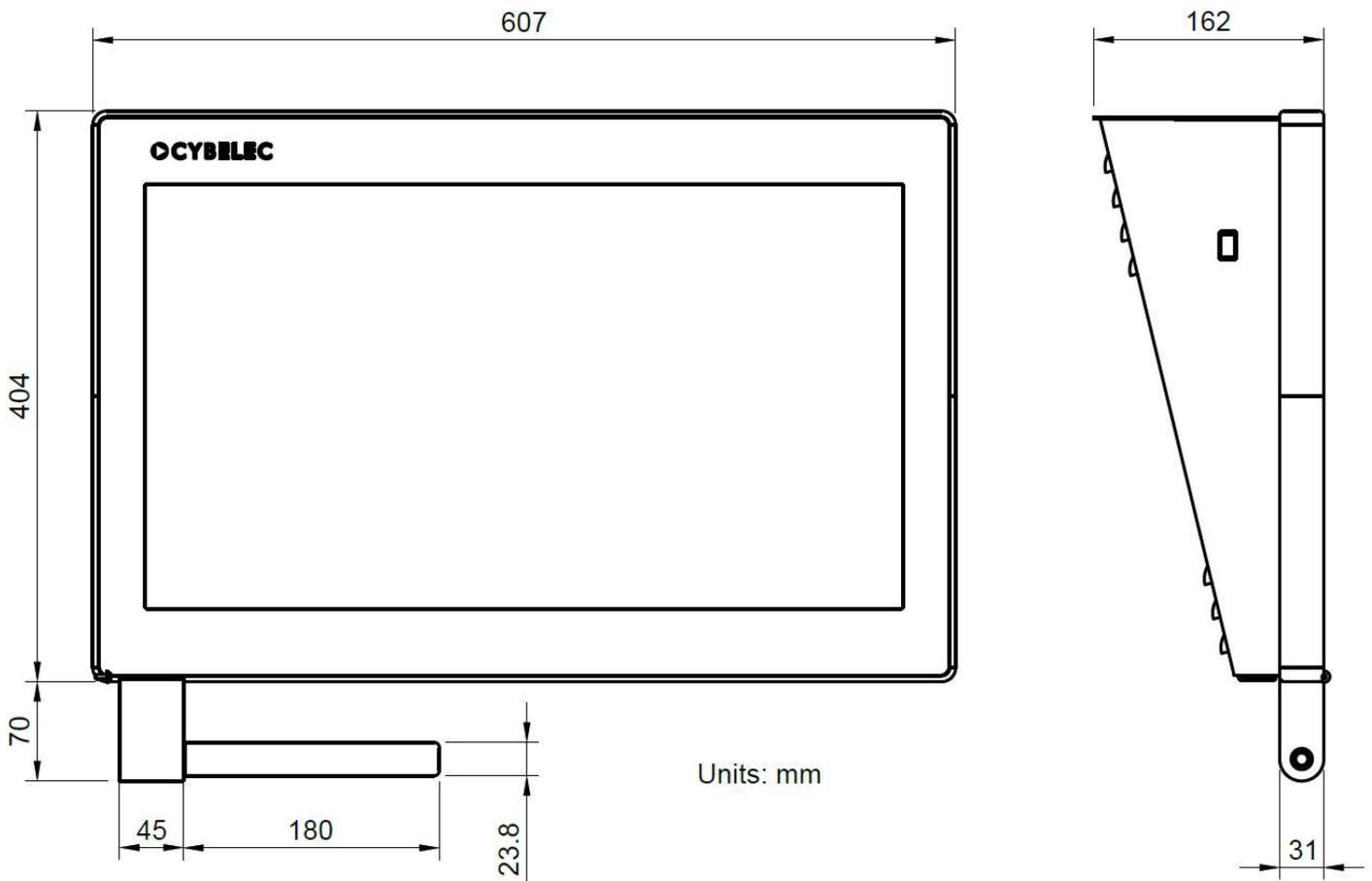
Y1, Y2 amplifier for proportional valves with and without feedback and 2/4/6 analog axes									
									
CybMVA	Axes	Digital In	Digital Out	Analog In	Analog Out	Enc In	Y (4A)	P+C (4A)	LVDT
MVA-FA4	(Y1-Y2 +2)	11*	11*	4	6	4	4	2	2
MVA-FA6	(Y1-Y2 +4)	19	19	4	8	6	4	2	2
MVA-FA8	(Y1-Y2 +6)	27	27	4	10	8	4	2	2

### For machines with proportional valves with integrated amplifier / Servo-Valves / Hybrid and analog axes

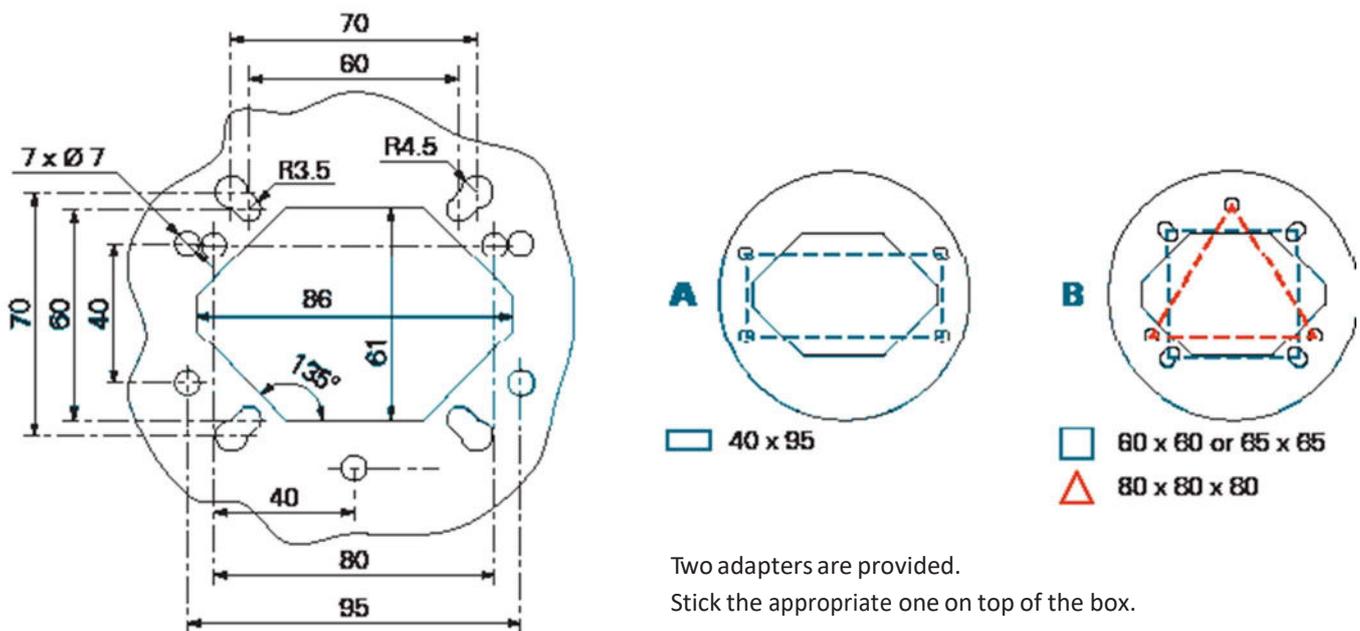
Y1, Y2 (+/- 10V) and 2/4/6 Analog axes									
									
CybMVA	Axes	Digital In	Digital Out	Analog In	Analog Out	Enc In	Y (4A)	P+C (4A)	LVDT
MVA-AA4	(Y1-Y2 +2)	11*	11*	4	6	4	-	2	-
MVA-AA6	(Y1-Y2 +4)	19	19	4	8	6	-	2	-
MVA-AA8	(Y1-Y2 +6)	27	27	4	10	8	-	2	-
MVA-AA10	(Y1-Y2 +8)	35	35	4	12	10	-	2	-

## Dimensions

### Housing Version

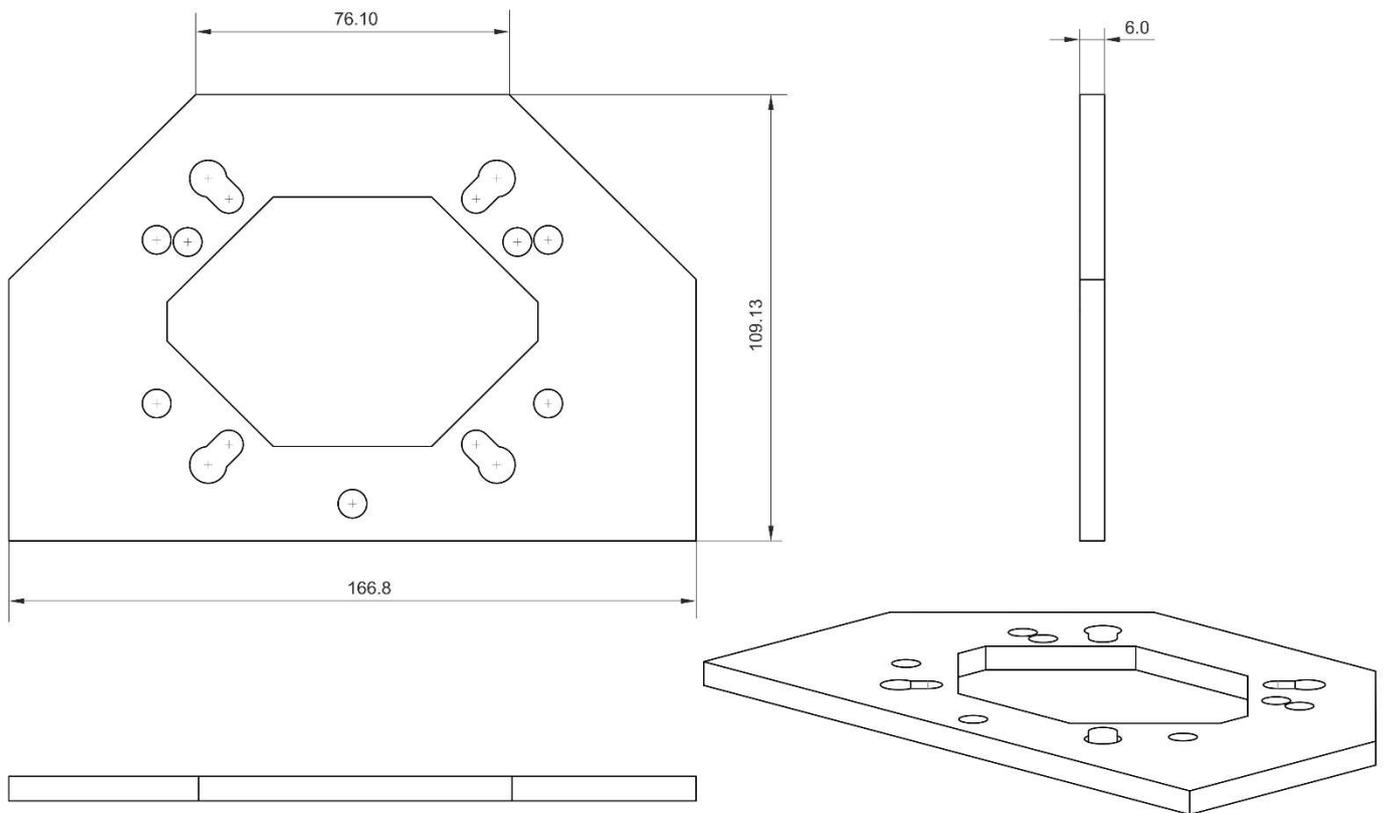


### Attachment dimensions





## ALU spacer for VT and VP fixing dimensions



## Ordering information

### VisiTouch 24 controls

VSP-94PS-2	VisiTouch 24, 4 axes (Y1, Y2, 2 axes), PS-2D
VSP-94PS-MX	VisiTouch 24 MX, 4 axes (Y1, Y2, 2 axes), PS-3D
VSP-94PS-MXIMP	VisiTouch 24 MX, 4 axes (Y1, Y2, 2 axes), PS-3D and import (MXIMP)
	<b>All controls come with RJ45 wire 7.5m (SFTP CAT 5E)</b>
	<b>The software is configurable with below options</b>

### Accessories

UPS-DP1	UPS system with battery, 24V DC, 3A
M-300-0013B	ALU spacer for VT and VP fixing

### Software options

OFT-AX	Additional axis license
OFT-TM	Tandem management
OFT-BA	Bending aids and sheet support (require axes licenses)
OFT-SS	Sheet support (require axes licenses)
OFT-AM1	Automatic angle measurement (one station)
OFT-AM2	Automatic angle measurement (two stations)
Included	Protractor Angle
OFT-AT	Automatic thickness measurement
OFT-FS	Force sensor management
OFT-SC	Special crowning cycle (user cycle file added by customer)
OFT-TL	Tool locator
OFT-SB	Plugin for communication with Lazer Safe Smart Brackets
OFT-RCG	Plugin for comm. with arm robot (incl. OFT-BA and OFT-SS)
OFT-RCA	Robot control, Cartesian XYZAC (includes 5 axes licenses)
OFT-RAS	STEP Arm Robots control interface

OFT-BC	Plugin for communication with Barcode reader, generic
OFT-ST	Statistics
OFT-I4M	Industry 4.0, statistics, status (MES), communication (MES)
OFT-VA	AutoPOL CAM Viewer
OFT-PG	Authorization for plugin installed by customer
OFT-IMP	MX Import license, DXF flat, SW, IGES, STEP, SAT, X_T

### PC offline software

OFT-VST-2	PC offline software VisiTouch (2D)
OFT-VST-MX	PC offline software VisiTouch MX
OFT-VST-MXIMP	PC offline software VisiTouch MX including Import
OFT-EXP	DXF export license