# DATA SHEET

CYBELEC®
INFRANOR GROUP COMPANY

Numerical control

VisiPac

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

- Semi-compact control with a 19" 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 cabinets.
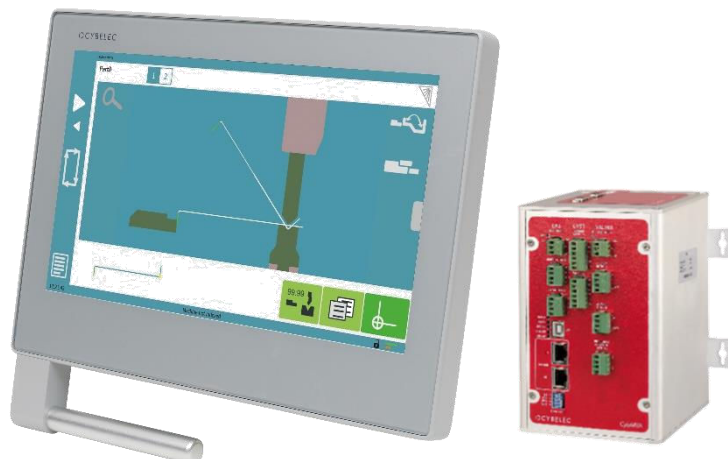
VisiPac is available with a new quad-core processor unit to make the experience with 2D graphic profile drawing (Touch Profile) and 3D viewer unique.

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

Main features

For the User

19" modern streamlined glass surface touch screen that can be used with gloves.

User-friendly HMI thanks to intuitive programming.

2D graphic profile and 3D viewer.

Automatic bending sequence calculation.

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

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.

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.

Interactions with the beam cycle.

Plug-in for HMI part.

Open system for customization.
Special crowning
Hybrid hydraulic machine

Integrated robot control, synchronization with press brake sequences (own robot CNC not necessary)

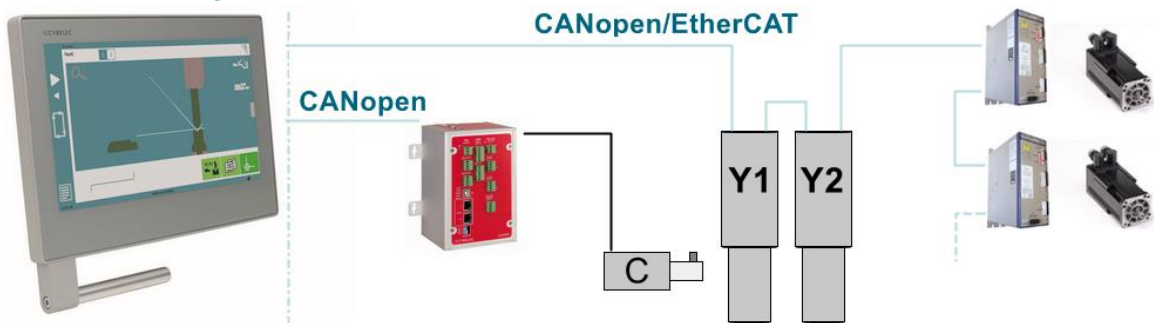# Technical Characteristics - VisiPac

Display

TFT screen	18.5'' wide TFT 16:9
Resolution	1366 x 768, 24 bits (WXGA)
Touch screen	Glass PCAP Multi-touch 10 fingers
Seal	IP65 - front side only
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

CNC Board SBC-310A

|		
Operating System		Windows 10
Processor Unit	Model	Intel® Atom x5-E3940 Quad-Core @1.6GHz
	Graphic RAM Cooling	Intel® HD Graphics 500 4 GB DDR RAM Passive Heat sink, FAN less
Mass Storage	Capacity	32 GB CFAST memory card SATA 16 GB eMMC
Display Interface	DVI LVDS	Up to 1920x1600, single-link DVI-D interface Up to 1920x1200, dual channel LVDS mode 18bpp or 24bpp
Communication	LAN USB COM Wi-Fi 4G-5G	1x Gigabit Ethernet, RJ-45(10/100/1000) 4x USB (1x USB 3.1, 3x USB 2.0) 1x USB 2.0 (dedicated to local Touch-Screen) 1x RS-232C/RS-485 (D-sub 9-pin male, Data flow 115kbps) USB compatible USB compatible
Operating temperature		0 - 40°C
Power Supply (Numerical Control)	+24V$_{dc}$	@0.8A typ.(CN without I/O – X1 connector)
Power Supply (Digital I/Os)		+24V$_{dc}$ @ 20A max.
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 1 EtherCAT	1Mbps CAN 2.0 A, RJ-45, CANopen Master/Slave 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, Pilz, 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.

Typical machine configurations – VisiPac controls and CybMVA modules
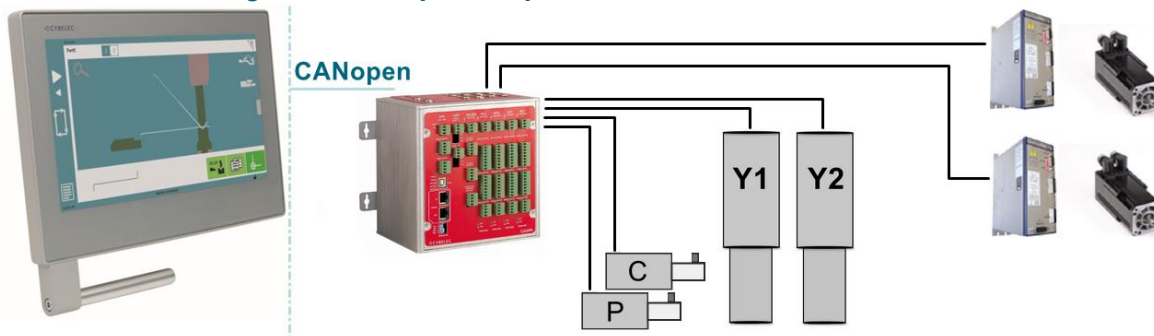
FULL DIGITAL axes configuration for hybrid and electric press brakes

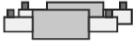### DIGITAL electric axes configuration for hydraulic press brakes
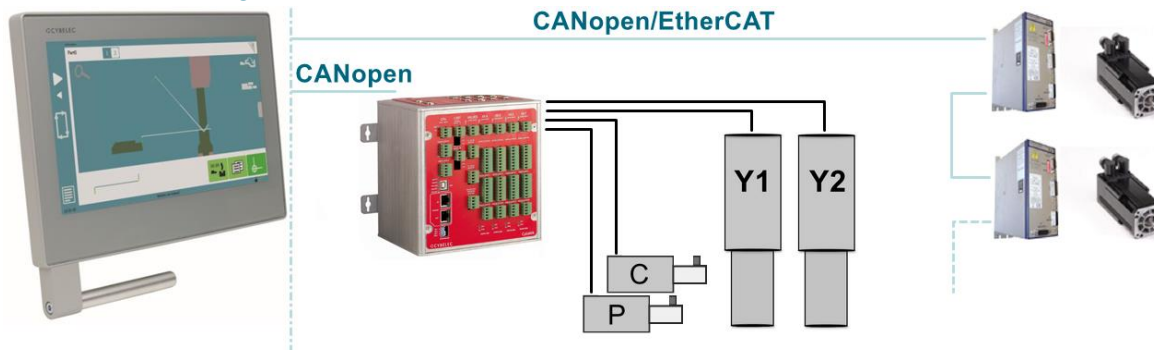
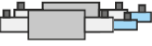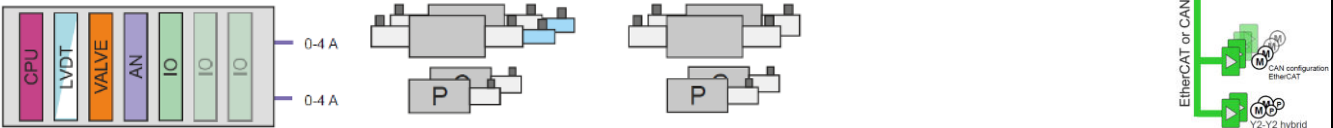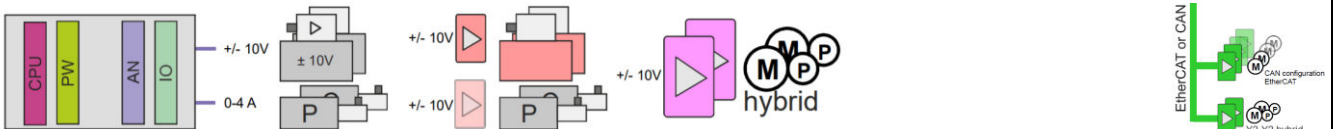### ANALOG electric axes configuration for hydraulic press brakes

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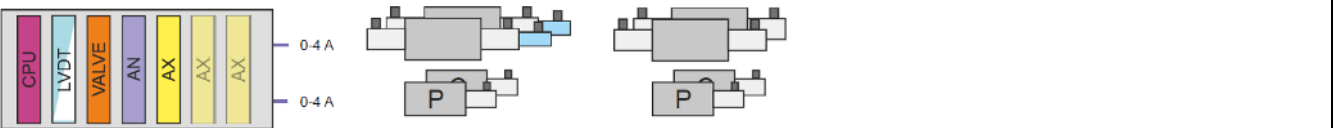
	prop. valve without feedback		Pressure valve Crowning valve
	prop. valve with feedback		MVP 100/A (valve amplifier)
	prop. valve with integrated amp. (+/- 10V analog command)		MSV 402/A (servo-valve amplifier) / servo-valve 50-300 mA

For machines with digital axes

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

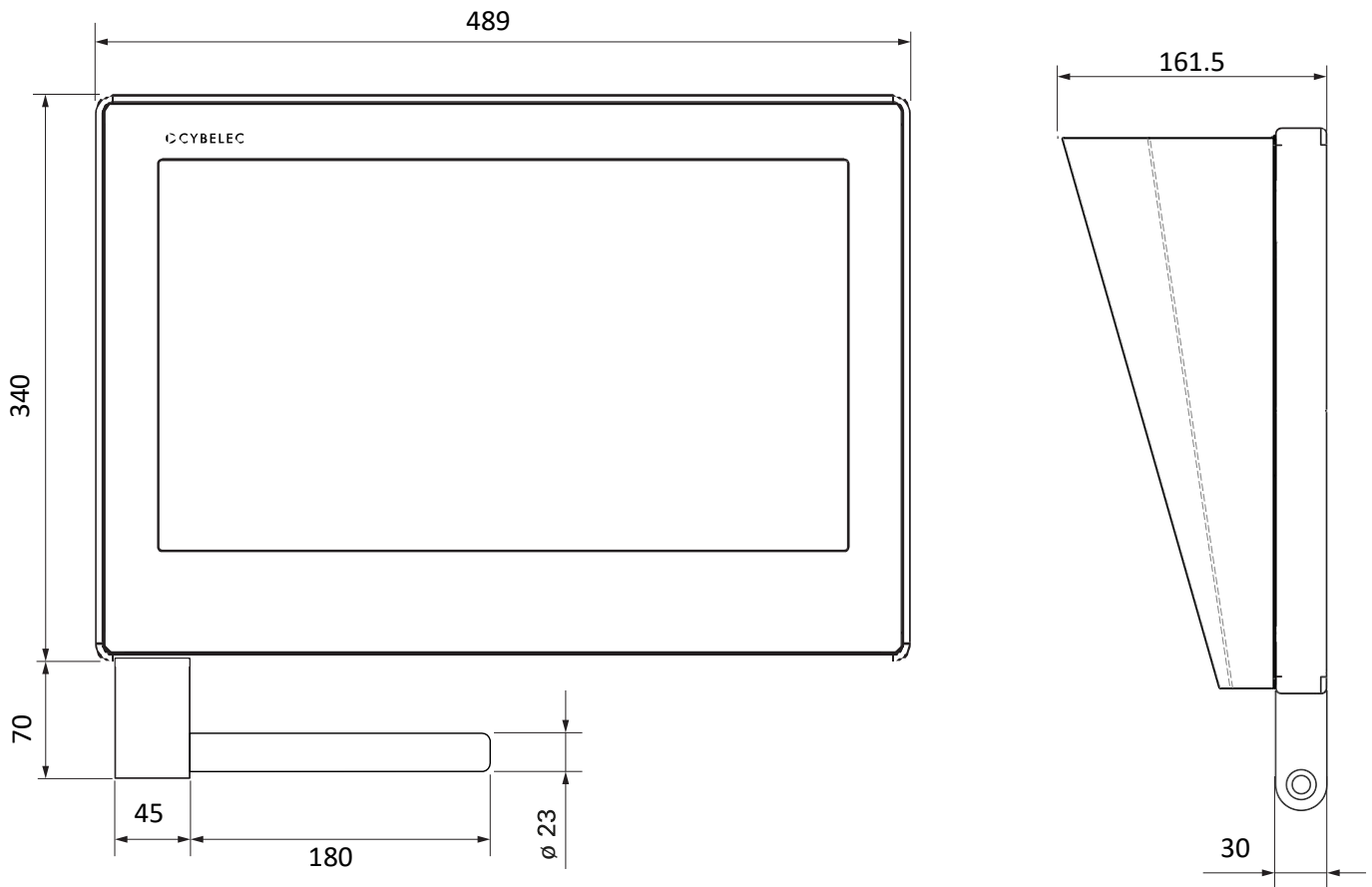| CybMVA	Axes	Digital In	Digital Out	Analog In	Analog Out	Enc In	Y (4A)	P+C (4A)	LVDT
MVA-FA4	(Y1-Y2 +2)	11*	11*	4	6	4	4	2	2
MVA-FA6	(Y1-Y2 +4)	19	19	4	8	6	4	2	2
MVA-FA8	(Y1-Y2 +6)	27	27	4	10	8	4	2	2

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	-

*Caution! Limited numbers Input/Output available

Dimensions

Housing Version

Attachment dimensions

A ☐ 40 x 95

B ☐ 60 x 60 or 65 x 65
△ 80 x 80 x 80

Two adapters are provided.
Stick the appropriate one on top of the box.

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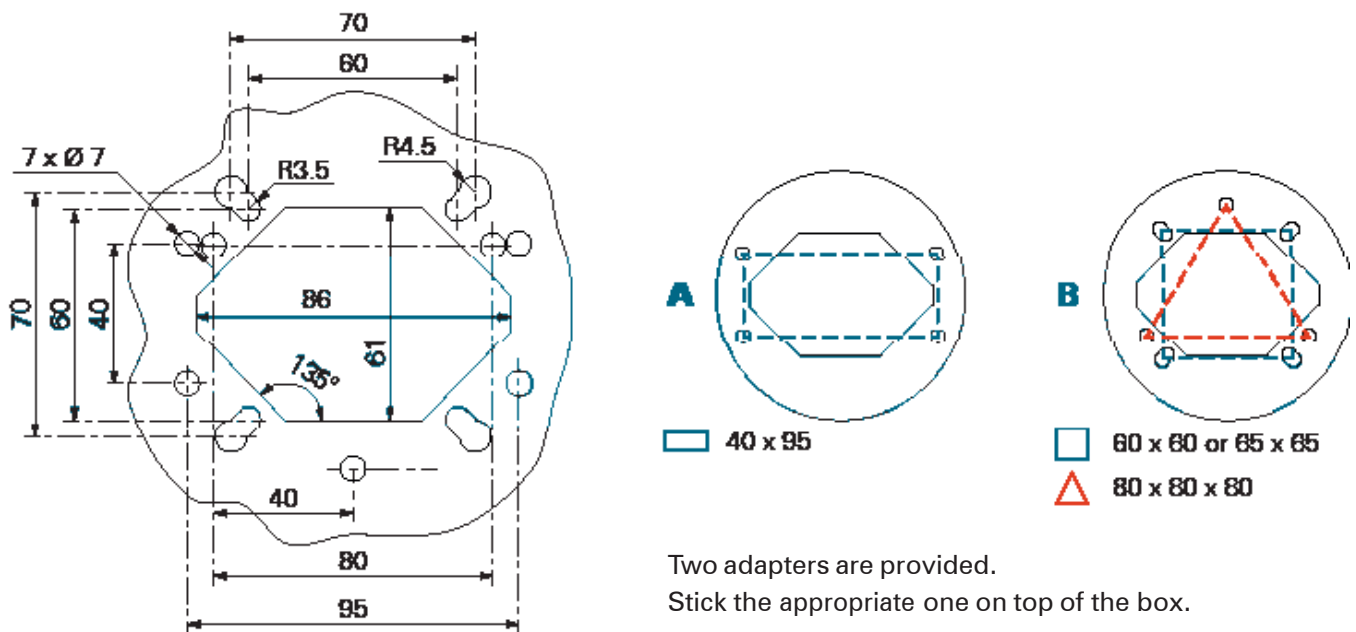
ALU spacer for VT and VP fixing dimensions

76.10

6.0

109.13

166.8
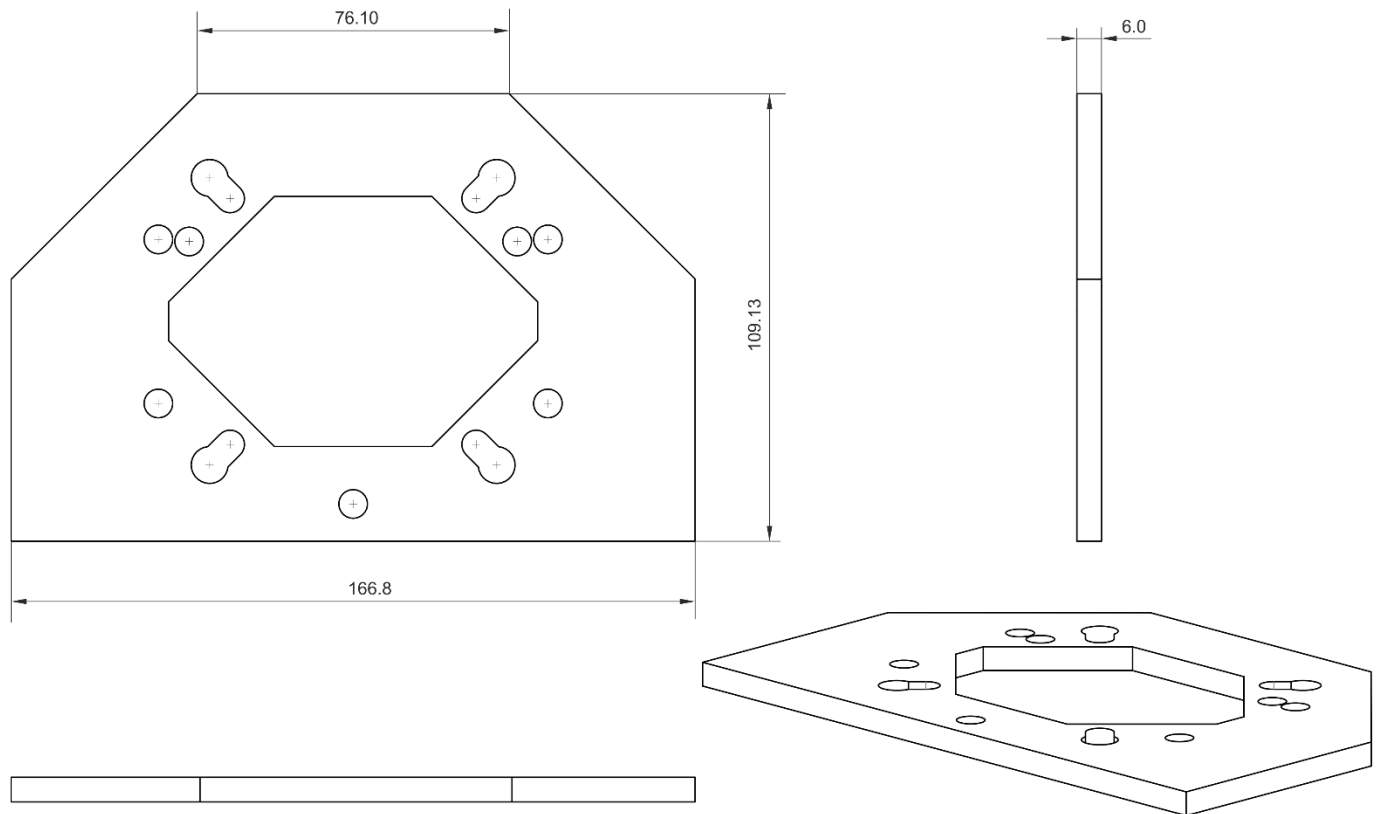
Dimensions

Auxiliary box

0,0 15,0 29,0 47,0 144,3 344,3 387,8 415,8 459,6 473,6 488,6

103,4

88,5

96,4
82,9

15,0

0,0

13,5
0,0

1,5 2,0

95

30,0 30,0

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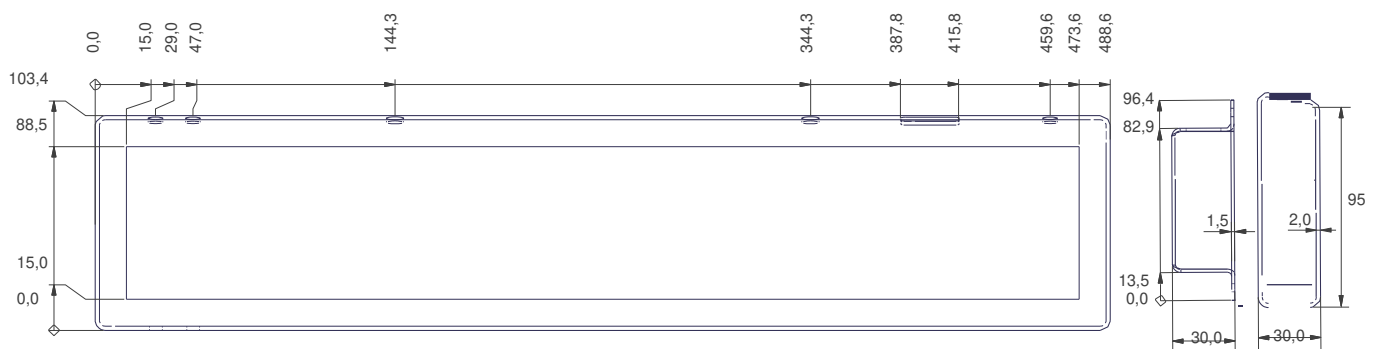
Dimensions

Panel version
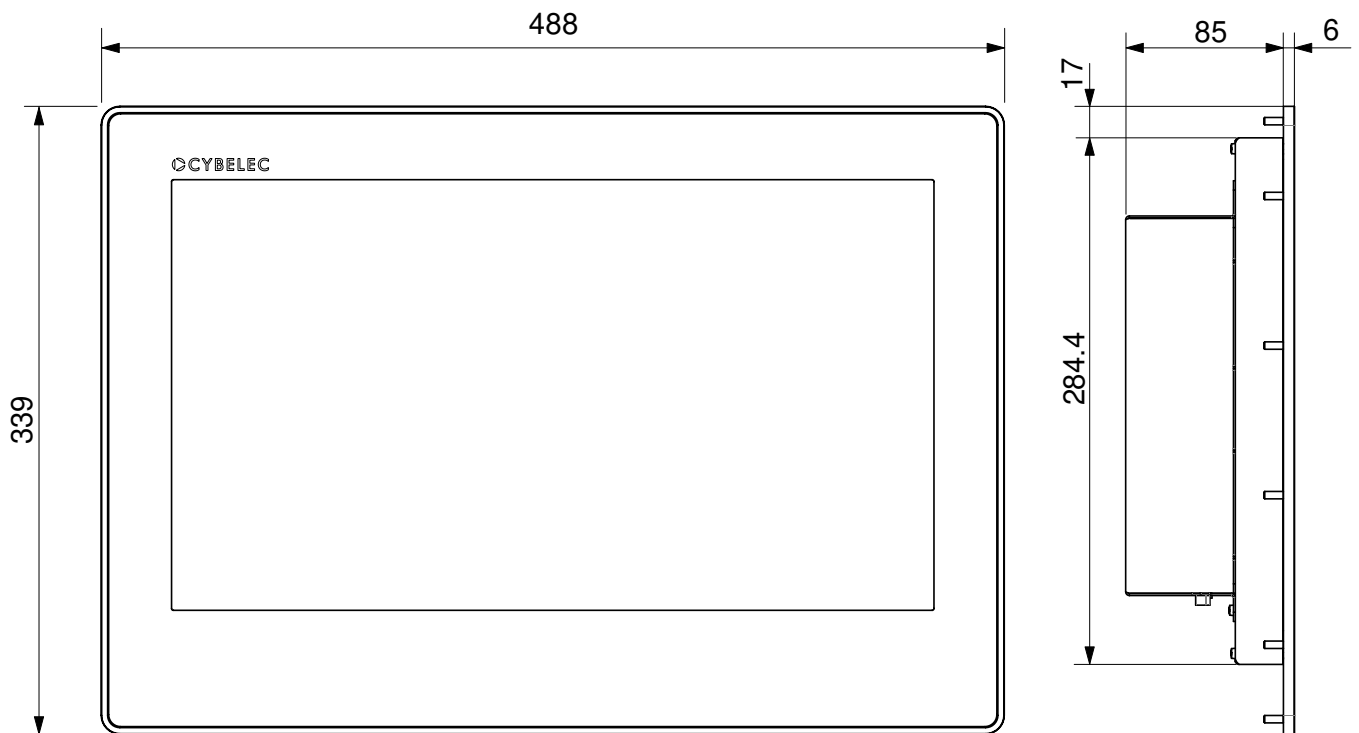
Integrating opening dimensions

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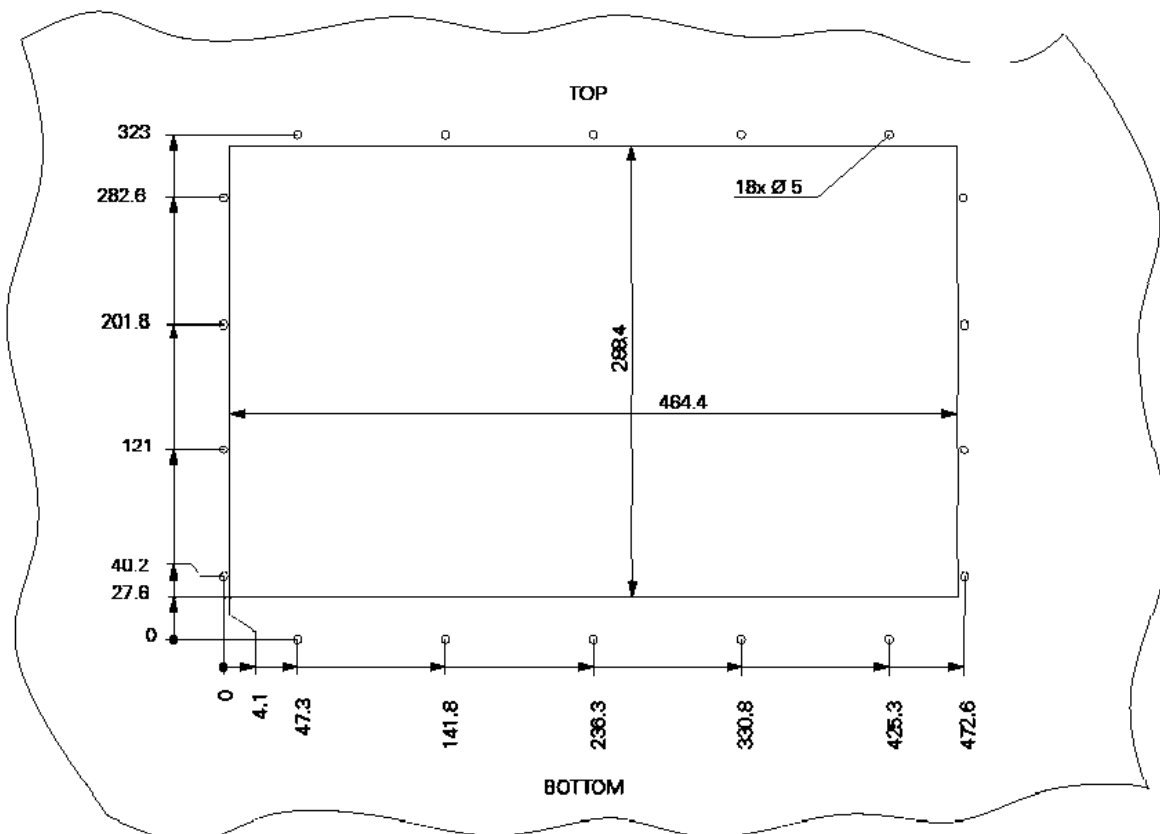
VisiPac ordering information

VisiPac controls

VSP-84PS-2	VisiPac, 4 axes (Y1, Y2, 2 axes), PS-2D with MX viewer With RJ45 wire 10m (SFTP CAT 5E) included
VSP-84PS-2/P	VisiPac Panel, 4 axes (Y1, Y2, 2 axes), PS-2D with MX viewer With RJ45 wire 10m (SFTP CAT 5E) included
Accessories	
S-OPT-BTAUX-S/E	Auxiliary box
UPS-DP1	UPS system with battery, 24V DC, 3A
M-300-0013B	ALU spacer for VT and VP fixing

Machine 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

Software options

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

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