# DATA SHEET

**CYBELEC®**
INFRANOR GROUP COMPANY

## Numerical control

# CybTouch 15PS Win

CybTouch 15PS Win is an outstanding numerical control for press brakes with a new solution all-in-one:

- Semi-compact control with a 15" modern streamlined glass surface full touchscreen and the CNC board mounted on the back of the screen.

- Up to 6 electric axes in analog, CANopen or EtherCAT.

- Interface to all kind of hydraulic systems, I/O and analogue axes thanks to the CybMVA modules placed inside the electrical cabinet.

In addition to all the features available to control simple as well most sophisticated press brakes, hydraulic, electrical and hybrid, CybTouch 15PS Win offers also an open system allowing customization to be up to Industry 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 algorythms.
- Tandem.
- DXF tools import.

- Group management for complex production.
- Preliminary / Final bend.
- Hemming management.
- Running under Windows 10 for multitasking and networking.
- Customizable Industry 4.0.

### For the OEM:

- Set up with dedicated wizards (auto-tuning).
- Axis control through CANopen® and EtherCAT® with wide configuration capabilities.
- Interactions with the beam through specific cycles to manage hybrid and electric press brakes.
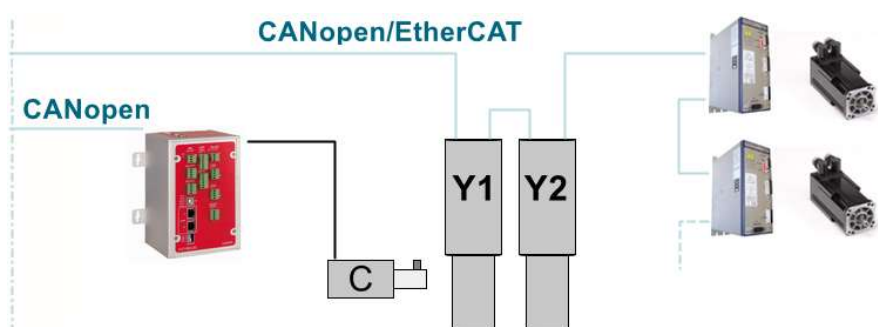
## Technical Characteristics

| Display | |
|---|---|
| TFT screen | 16 Mio color |
| Resolution | 1366x768 |
| Touch screen | Glass PCAP Multi-touch |
| Seal | IP44: Display side<br>IP20: Back side |
| Handle | Included |
| Emergency button | 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.<br>Relative humidity (10 to 85% non-condensing). |
| EC Directives | IEC 61131-2 |
| Weight | 7.2 Kg |

| Operating System | | Windows 10 | |
|---|---|---|---|
| Processor Unit | Model<br>Graphic<br>RAM<br>Cooling | Intel® Atom x5-E3940 Quad-Core @1.6GHz<br>Intel® HD Graphics 500<br>4 GB DDR3L RAM<br>Passive Heat sink, FAN less | |
| Mass Storage | Capacity | 40 GB  CFAST memory card SATA<br>16 GB eMMC | |
| Display Interface | | LVDS<br>DVI | For the integrated display<br>single-link DVI-D interface for 1x extra display |
| Communication | | LAN<br>USB<br><br>COM<br>Wi-Fi<br>4G-5G | 1x Gigabit Ethernet, RJ-45(10/100/1000)<br>4x USB (1x USB 3.1, 3x USB 2.0)<br>1x USB 2.0 (dedicated to local Touchscreen)<br>1x RS-232C (Data flow 115kbps)<br>USB compatible<br>USB compatible |
| Power Supply (Numerical Control) | | +24V$_{dc}$ | 1.5A min (CN without I/O – X1 connector) |
| Power Supply (Digital I/Os) | | +24V$_{dc}$ | 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<br>Isolation 2kV<br>Filtering – debouncing and deglitching (by step of 250µs) |
| Digital Output | | 4 | 0.5A typ. /0.7A max. according to IEC61131-2 type 3<br>Isolation 2kV<br>Overvoltage and Short circuit protection<br>Status – output in fault and no 24V IO power supply |
| Fieldbus Interface | | 2 CANopen<br>1 EtherCAT | 1Mbps CAN 2.0 A, RJ-45, CANopen Master/Slave<br>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<br>Real time Systems: DataM LaserCheck, Lazer Safe IRIS+, Vision Component, 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 – CybTouch 15PS Win and CybMVA modules

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



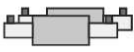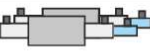### DIGITAL electric axes configuration for hydraulic press brakes
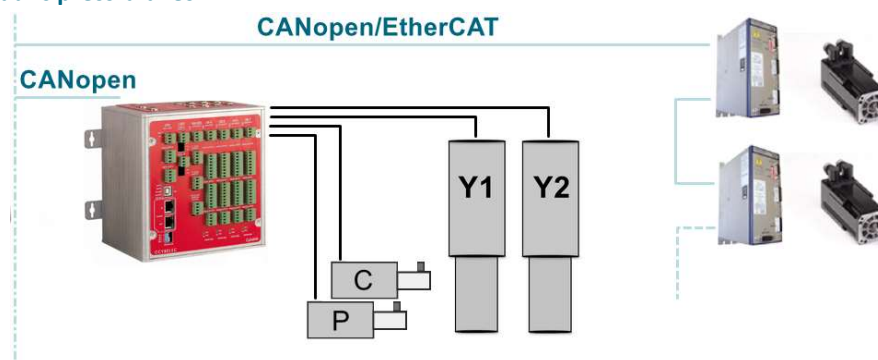


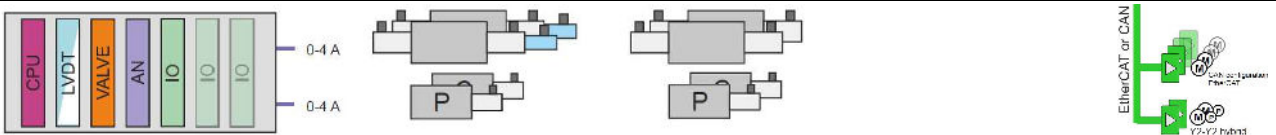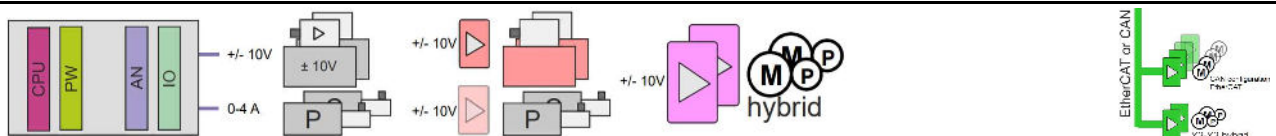### ANALOG electric axes configuration for hydraulic press brakes



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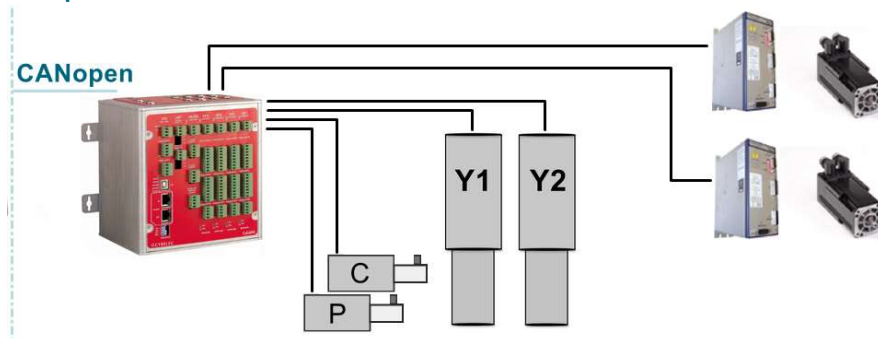
# CybMVA modules configurations

For detailed technical characteristics, please refer to the CybMVA datasheet.

| | | | |
|---|---|---|---|
| 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**

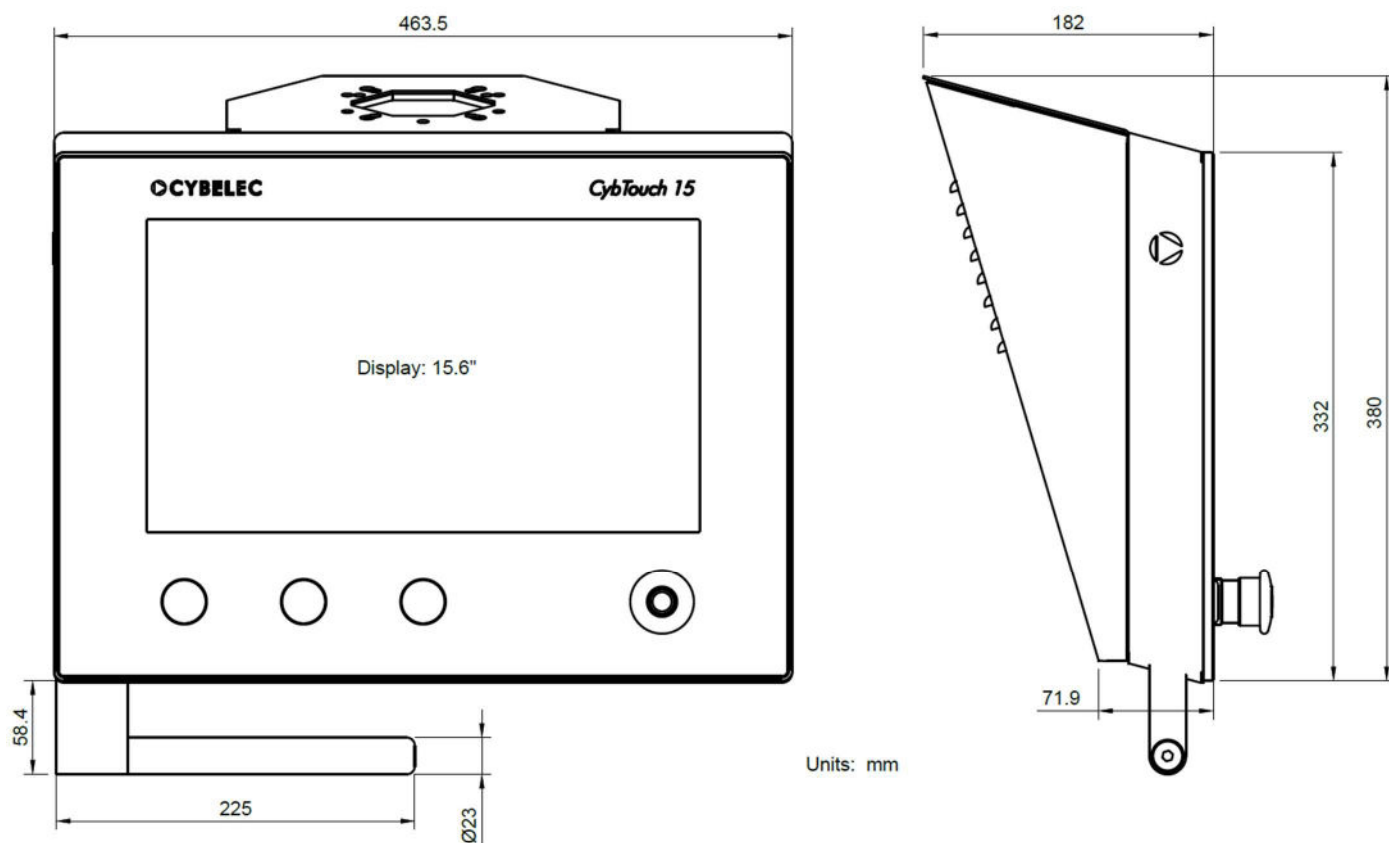| CybMVA | Y1-Y2 | Digital In | Digital Out | Analog In | Analog Out | Enc In | Y (4A) | P+C (4A) | LVDT |
|---|---|---|---|---|---|---|---|---|---|
| MVA-AD2 | Yes | 19 | 19 | 4 | 4 | 2 | - | 2 | - |

## For machines with proportional valves and analog axes

**Y1, Y2 amplifier for proportional valves with and without feedback and 2-4 analog axes**

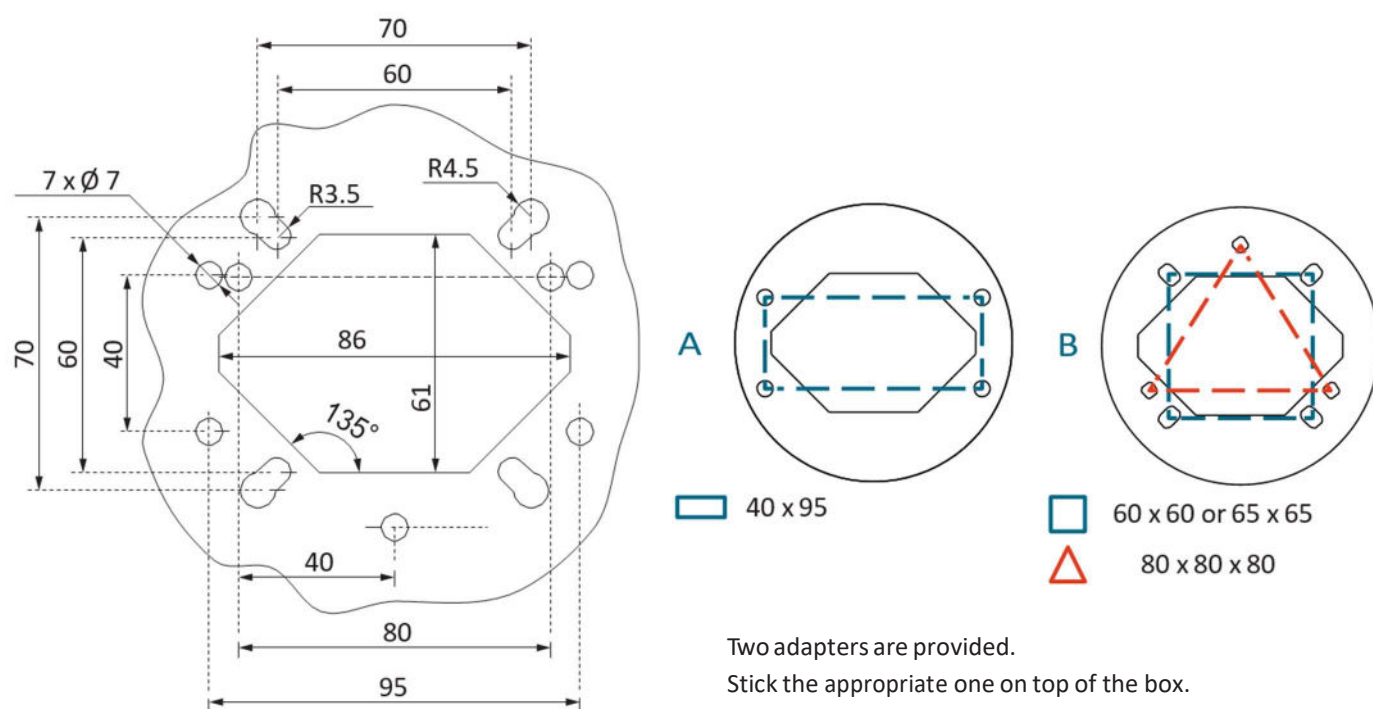| CybMVA | Axes | Digital In | Digital Out | Analog In | Analog Out | Enc In | Y (4A) | P+C (4A) | LVDT |
|---|---|---|---|---|---|---|---|---|---|
| MVA-FA4 | (Y1-Y2 +2) | 11* | 11* | 4 | 6 | 4 | 4 | 2 | 2 |
| MVA-FA6 | (Y1-Y2 +4) | 19 | 19 | 4 | 8 | 6 | 4 | 2 | 2 |

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

**Y1, Y2 (+/- 10V) and 2-4 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 | - |

## Dimensions



Display: 15.6"

Units: mm

## 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.

# Dimensions

## Panel version



Display: 15.6"

Units: mm

## Integrating opening dimensions



TOP

8x Ø4.00

units: mm

## Ordering information

### CybTouch 15 PS Win

| CBT-15*PS-W/B | T-screen 15", 4 to 6 axes, PS-2D, Windows, housing |
|---|---|
| CBT-15*PS-W/P | T-screen 15", 4 to 6 axes, PS-2D, Windows, panel |
| | **All controls come with RJ45 wire 7.5m (SFTP CAT 5E) included.** |

### Accessories

| S-MSV-402/A1 | Servo valve amplifier +/-350mA or +/-50mA |
|---|---|
| UPS-DP1 | UPS system with battery, 24V DC, 3A |

### 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-ST | Statistics |
| OFT-I4M | Industry 4.0, statistics, status (MES), communication (MES) |
| OFT-XC | X Axis calibration (One license per axis) |
| OPT-160GB | Extended CFast 160GB (replacing the standard CFast) |
| | |
| **Included** | Protractor Angle |
| | User cycle encrypted |

### 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 |