

# CNCmakers Limited

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## 1000MII & 1000M4II MILLING CNC CONTROLLER

1000MII & 1000M4II from CNCmakers Limited, are superior CNC systems for milling machine and machine center, which adopt with high performance 32-bit microprocessor, new structure design and open PLC process. They are employed with 8.4 inch color LCD display. They can control 3/4 feeding axes, 3/4 simultaneously controlled axes. They can be matched with SD or YASKAWA Digital AC servo driver. 1000MII & 1000M4II are suitable for CNC Milling Machine and Machine Center.



- Adopt 32-bits powerful CPU to achieve high-speed, high-precision control. The maximum speed reaches up to 30 m/min
- 7.5/8.4 inch TFT LCD with the resolution of 640x480.
- Six layer main board applying custom-build FPGA, high integration technology, perfect structure design ensures that the system has high reliability and high anti-interference capability.
- Support the open-style PLC function to meet the secondary development of the machine tool builder.
- Two types of machine control panels including the standard panel with film-buttons and one with pushed buttons are available. On the later one the functions of the 50 pushed buttons and 50 lamps are able to defined by customs.
- Remote I/O modules based on CAN bus can be use to extend the number of I/O points up to 512/512.
- English operation interface and full help information make the operation more conveniently.
- Perfect self-diagnosis function. Display the internal and external states in real time and alarms will be issued timely when some abnormality happen.
- Powerful instruction execution ability to achieve the high-speed, small-line-section machining
- High-speed DNC machining are available based on the transmit rate reaches up to 115200 bps and large program buffer space.
- 640 kB internal program memory space. U-disk port can be use to extend the space of program and to perform DNC machining.
- Rich NC functions: macro program B, rigid tapping, local coordinate system, coordinate system rotation, coordinate scaling, polar coordinate system, etc.

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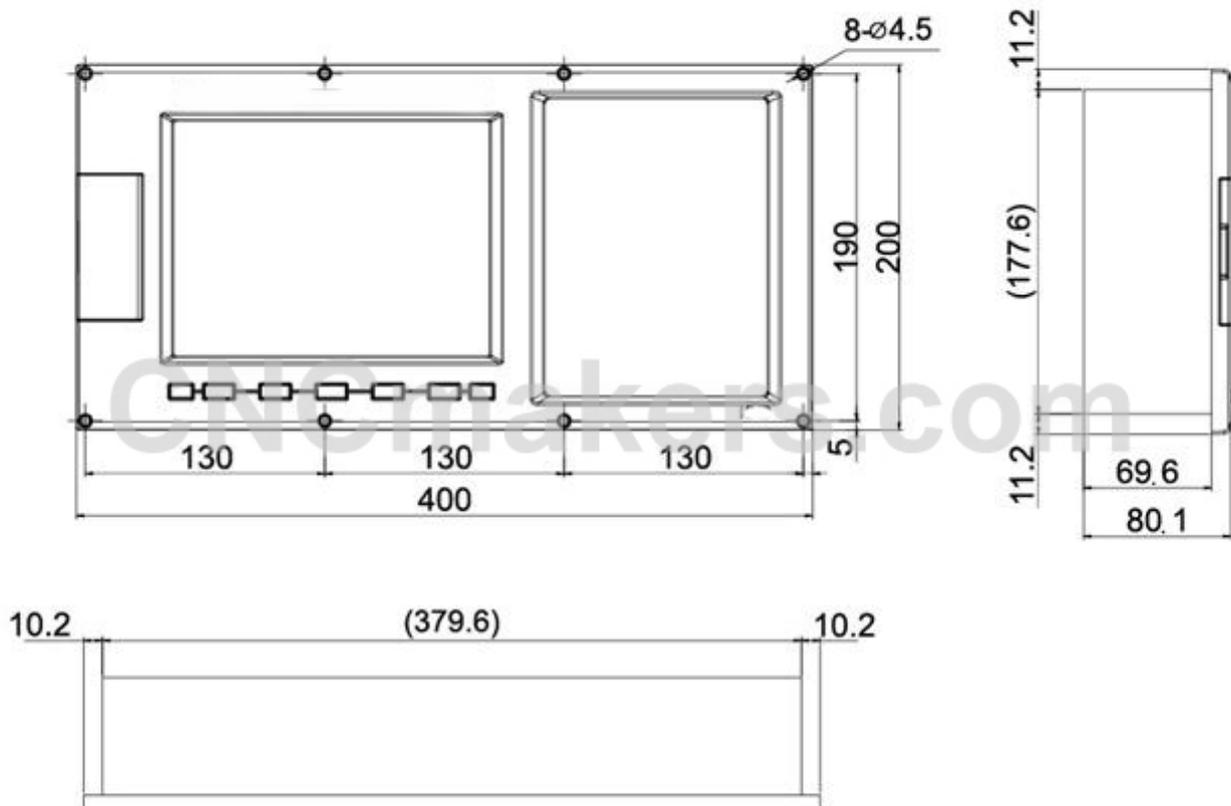
| Function  | Specification   |          | Function                               | Specification   |
|---|---|----------|--|---|
| Model   | 1000MII   | 1000M4II | Program                                | Absolute / incremental mixture programming. Decimal point function in programming   |
| Axis  | X、Y、Z   | X、Y、Z、4  | Workpiece coordinates                  | G54~G59   |
| Interpolation axis number                         | 3   | 4        | Subprogram calling function            | Provided  |
| Interpolation                                     | Linear interpolation, arc interpolation, helical line interpolation, polar coordinate interpolation(optional) |          | English and metric unit exchanging     | Provided  |
| Least setting unit                                | 0.001 mm or 0.0001 mm   |          | Communication                          | RS232   |
| Largest command dimension                         | ±99999.999 mm   |          |  |   |
| Maximum rapid traverse rate                       | 30000 mm/min  |          | Remote control                         | Transmitting PLC program, machining program, parameters, etc.   |
| Maximum feed rate                                 | 15000.000 mm/min<br>30000 mm/min (optional)   |          | U-disk interface                       | Provided  |
| Feed rate override                                | JOG/AUTO: 0~150%  |          | Macro program                          | Macro A or Macro B  |
|   |   |          | Emergency stop and stroke limit        | Standard PLC program supports three emergency stop signals. Both stored stroke limit and hardware stroke limit are available. |
| Program memory space and electric disk            | 640 kB, 128, 3<br>640 kB, 512, 3 (optional)   |          | Alarm                                  | PS alarm, Servo driver alarm, Exceed stroke limitation alarm, System error alarm, External alarm                              |
| Interface   | 7.5/8.4 inch TFT LCD  |          |  |   |
|   | Revolution: 640x480   |          | Acceleration/deceleration control      | Linear and exponential type control   |
| Additional interface                              | Additional panel, Independent operation box   |          | Reference position return              | Provided  |
| Display   | Coordinate value, machining time, workpiece count, date, feed rate, etc.                                      |          | Electrical gear ratio                  | 1~127, 1~127  |
| Graph function                                    | Tool path displaying  |          | Machine control                        | Machine lock<br>Feed hold<br>Block skip   |
| PLC   | Open-style PLC  |          | Feed control                           | AUTO, JOG, STEP, HANDLE   |
| Tool compensation                                 | Tool length compensation<br>Tool tip radius compensation  |          | DI/DO                                  | DI: 40 DO: 24<br>DI/DO points can be extended by CAN bus  |
|   |   |          | Driver                                 | Digit AC servo driver   |
| Backlash compensation<br>Pitch-error compensation | Provided  |          | Tool length offset value               | 32  |
| Spindle function                                  | Gear shifting control<br>Analog spindle control<br>Rigid tapping control                                      |          | Tool control                           | Controlled by PLC program   |
| Miscellaneous functions                           | Control the spindle rotation, coolant, lubrication, in JOG /MDI /AUTO mode                                    |          | Cycle for drilling, tapping and boring | Provided  |
|   |   |          | Plane selection                        | G17/G18/G19   |
|   |   |          | DNC machining                          | With RS232 or U-disk  |

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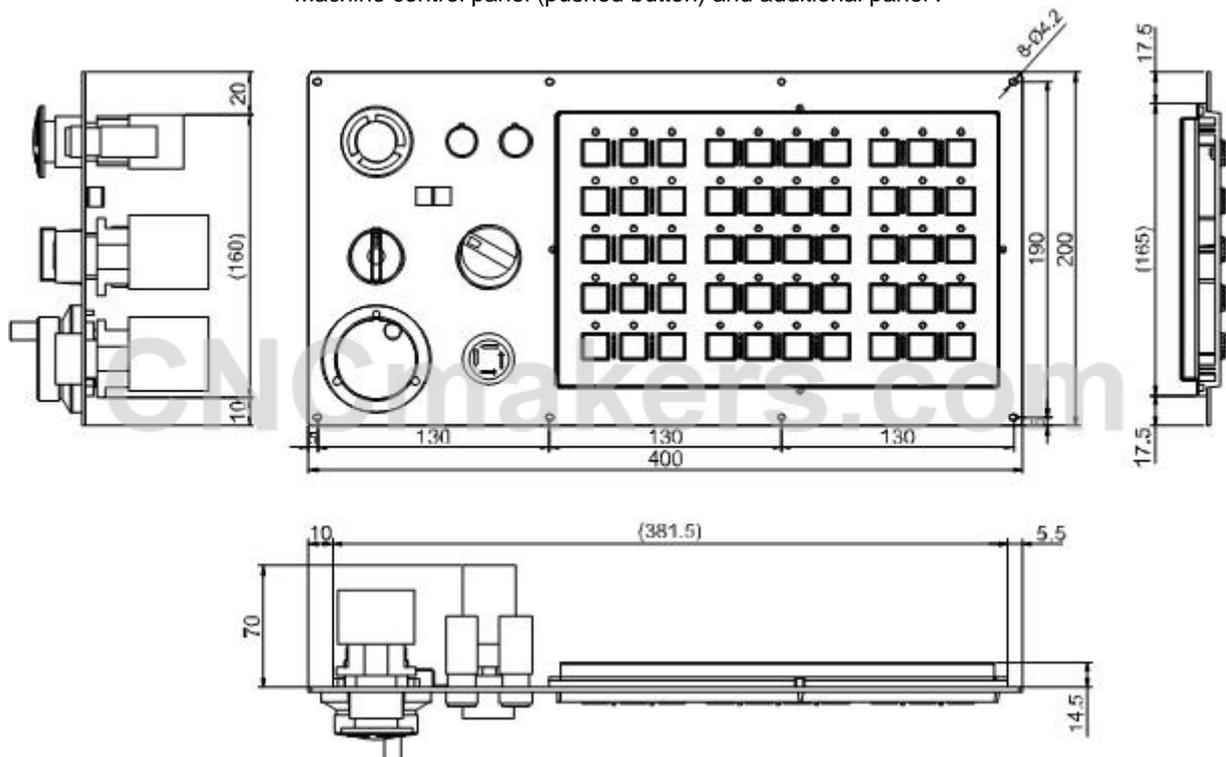
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## Dimension



Machine control panel (pushed button) and additional panel :

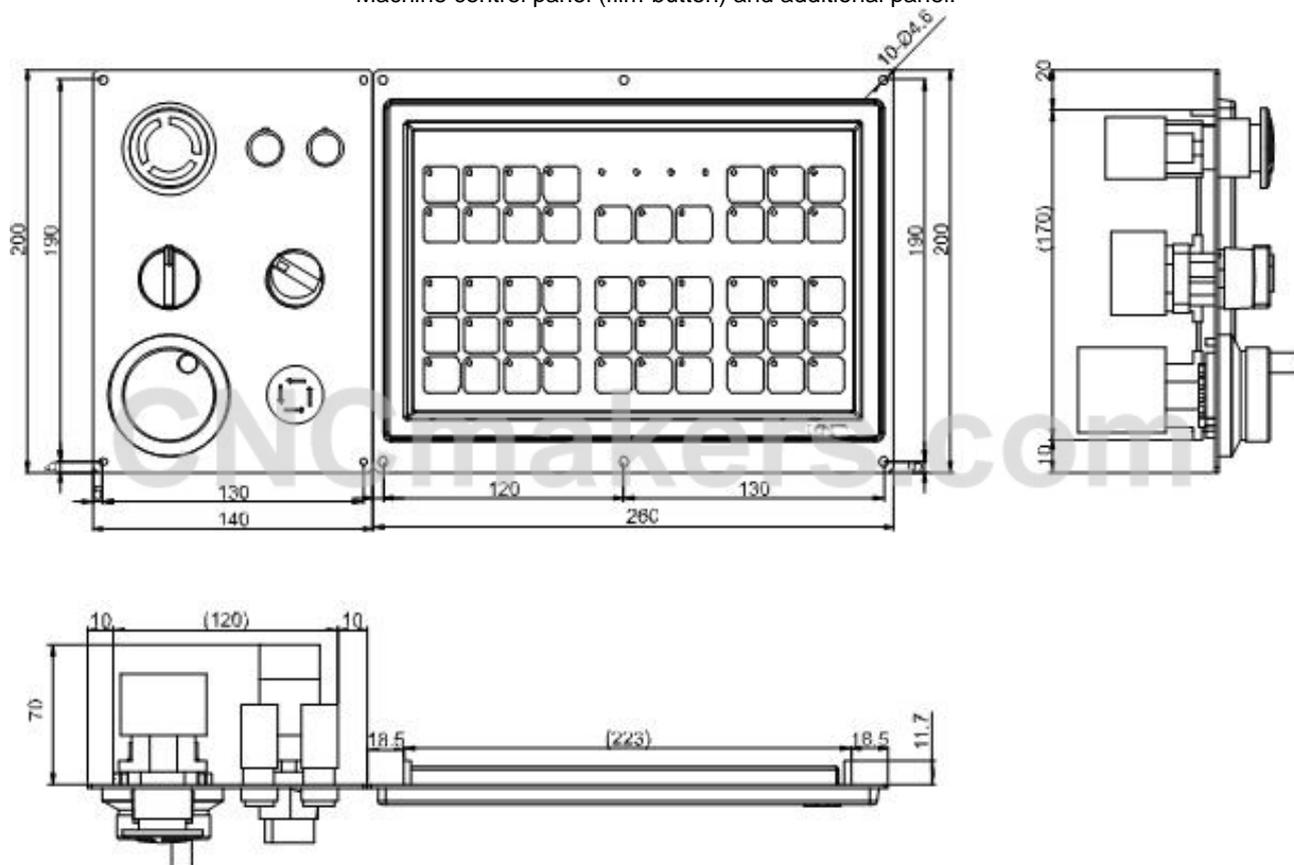


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Machine control panel (film-button) and additional panel:



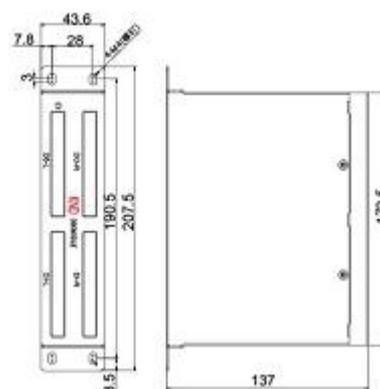
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Remote IO module:

Remote IO module D1/D2



Remote IO module A1/A2

