



NEWKer 数控 鑫科瑞数控

NEWker-CNC

More practical and ideal cnc control



Robot Control

成都鑫科瑞数控技术有限公司

CHENGDU NEWker CNC-TECHNOLOGY CO., LTD

Addres: No.888 ChengLong Road, Headquarters Economy E2, ChengDu in SiChuan of China

Phone: (+86)13548198210

Wechat: 13548198210、15671627621

Skype: NewKer-CNC James NewKer Kenneth

Whats: +8613150170910、+8618990029555

Website: newker-cnc.en.alibaba.com

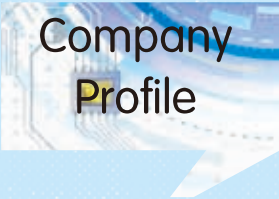
Email: newker.cnc@aliyun.com ken.newker@aliyun.com



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CHENGDU NEWker CNC-TECHNOLOGY CO., LTD



NEWker – CNC
---More practical and ideal cnc controller!

Chengdu NEWKer CNC technology co., LTD is a professional engaged in numerical control system, full digital servo drive and industrial automation product development, manufacturing, marketing services in one of the high–tech modern enterprise.

Over the years , Based on the customer Suggestions and the continuous improvement of the professional technology and innovation , we has formed the various types of system what is machine tool numerical control system , machine tool retrofiting.

Based on the market demand , We have developed the most practical CNC system and the most advanced double channel servo drives on the basis of nc technology at home and abroad. The main products: NEWker–i8、NEW990、NEW1000Mic、NEW1000、NEW1500、NEW2000Dual channel numerical control system; DS301 Single channel、DS302 Dual channel、DS301K full closed–loop、DS503 High voltage digital incremental、the absolute value ac servo drive,etc. In 2008,We successfully developed DS302 double channel servo drive , It is the domestic pioneered and awarded many national patents. The technology of Dual channel synchronization makes the better performance、More cost– effective. It came out, the servo control technology has entered a new field , In the development of industrial automation servo technology has the history of the pioneering significance.

The above products are suitable for:All kinds of lathe, milling machine, planer, drill press, grinding machine, hobbing machine and other machine tool nc transformation and form a complete set, as well as industrial automation production fields。At present,our products has throughout all parts of the country.

Adhering to the "user first, credit for this" the management idea , Build "modern nc industry – the most practical ideal numerical control system", With "high–quality products, quality service" business policy to serve the society in various fields.



- With the advanced science and technology to arm the products
- With high quality products to serve the market
- With quick service to move by the customer



NewKer-CNC Controller Comparison

Function	Ca series Servo type	Cb series Absolute type	i series Bus Absolute type
LCD	TFT 8 inch	TFT 8 inch	TFT 8 inch/10.4 inch
Resolution	800X600	800X600	800X600
Input Chinese	Yes	Yes	Yes
Axis	5 axis simultaneous	5 axis simultaneous	8 axis simultaneous
Axis control	No	No	Each axis could move separately with different speed
Spindle full-pulse control	No	No	4 ways, could used for two spindle machine
G00	20m/min	30m/min	240m/min
Interpolation	10m/min	20m/min	30m/min
Interpolation cycle	6ms	4ms	2ms
Storage	32M	100M	128M standard Could expand to 32G
Workpiece cooordinate	6	15	54
Comunication work DNC	Yes	Yes	Yes
U-disk work DNC	Yes	Yes	Yes
Teach function	Yes	Yes	Yes
Zero switch and limit switch	Must	No need	No need
PLC	Secondary development	Secondary development	Secondary development
Macro program	Secondary development	Secondary development	Secondary development
Interface	No	Secondary development	Secondary development DIY
User I/O point	16X16	24X24	48X32 standard Could expand to 64X32
Pre-read function	Pre-read 1000 segment	Pre-read 10000 segment	Infinite pre-read

PS: Red is the special function of i series bus absolute type



Certification



NEW18iM/1000MDc



NEW15iT/1500TDc



Industrial Robot Controller

NEWker-i8

Practical and ideal robot controller



Features

- ★ Optimize the structure algorithm, adapt to control various structural forms of robot;
- ★ Modularized function settings for a variety of applications;
- ★ 8 axis control, including 2 auxiliary axis(linear axis and positioner);
- ★ Suit for multi-turn absolute type motor;
- ★ Bus type embedded host structure, convenient for function expansion;
- ★ 48X32 I/O point, edit PLC online;
- ★ Many kinds of robot technique function, easy to operate and program;
- ★ Wifi function, convenient to send files;

NEW experience and NEW generation robot controller

Function

Axis: 4-6 joint axis and 2 accessory axis
Teach pendant: 8 Inch TFT-LCD, Touch Screen, Mode Switch, Safety Switch, Emergency.
Servo Motor: Bus absolute encoder motor
Connection: (1) Extensible 48X32 I/O
(2) 2 ways 0-10V analog output
(3) 1 way orthogonal input of encoder
(4) 6 ways output of motor with brake
(5) the special terminal for robot connection
Operation: Teach、Reappear、Remote;
Programme: Keyboard、Teach、Technique;
Motion: Point to point、Straight、Arc;
Instruction: Motion、Logic、Calculation、Technique,also could use the code of CNC controller;
Coordinate system: Joint Coordinate、User Coordinate、Tool Coordinate、World Coordinate
PLC: Ladder graph,8000 steps;
Alarm: Emergency、Driver alarm、Safety maintenance、Arcing abnormal、coordinate system abnormal;
Type of robot: (1) vertical multi-joint serial robot;
(2) vertical articulated parallelogram robot
(3) vertical multi joint L shape wrist robot
(4) Pole coordinate robot
(5) SCARA robot
(6) Delta robot
(7) Special robot
Application: Handling, welding, spraying, palletizing, cutting, polishing, forging, casting and so on

Instruction

To specify the current of welding by instruction AA or S	AA/S
To specify the voltage of welding by instruction VV or SS	VV/SS
Instruction of start arc welding	AS*
Instruction of end arc welding	AE*
Instruction of start swing welding	WS*
Instruction of end swing welding	WE
Motion instruction of robot (Simple instruction and whole instruction):	
A.Joint motion	MJ or MOVJ or G0
B.Straight line motion	ML or MOVL or G1
C.Arc motion	MC or MOVC or G6
Speed instruction V/F	V= specify feeding speed
Rapid Override of Speed VJ	VJ= specify ratio of rapid feeding
Variable PL	PL= specify continuous variable between the segments
Start translation	SN*
End translation	SF
Read the current user coordinate	PK***
Calculate the translation according to number of two position	PX***=PT***-PT***
Plus and minus in translation	PX***=PT***+PT** PX***=PT***-PT***

NEWker-i8 Application



Delta



Wrist Joint Robot



Six Joint Serial Robot



Scara

Application: Palletizing、Welding、Painting、Polishing、Cutting



CNC Lathe Controller NEW16iT/990TDc

Practical and ideal CNC controller



Features

- ★ By adopting the technology of bus Modbus, ARM + DSP + FPGA technology
- ★ Usb and RS232 interface, usb DNC functions (new) ;
- ★ Network remote technology, on-line diagnosis user system directly (new) ;
- ★ Expand to 32G storage, an infinite number of program (new) ;
- ★ Absolute type motor control technology (new) ;
- ★ The fastest speed is 300 m/min, the processing speed is 0.01 ~ 30 m/min (new) ;
- ★ Interpolation cycle is only 2ms, The control accuracy of 0.1 um (new) ;
- ★ Grating ruler full closed loop control technology, the machining accuracy or less 2 um (new) ;
- ★ Short linear program pre-reading technology, satisfy the high speed cutting carved (new) ;
- ★ Chinese program name input technology, the intelligent human-machine interface (new)

NEW experience and NEW generation CNC controller

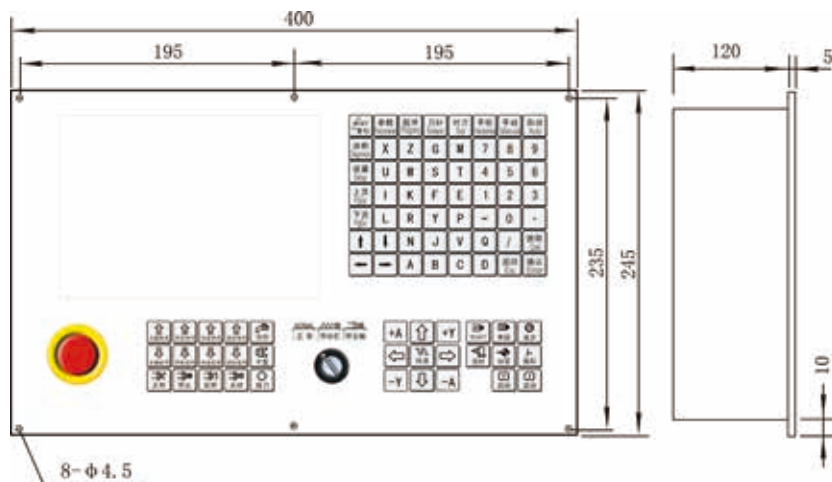
Function

Number of control axis: 2-4 (X、Z、C、A)
The smallest programming: 0.001mm
The most programming: $\pm 99999.999\text{mm}$
The highest speed: 30m/min
Feed speed: 0.001~15m/min
Continuous manual: one axis or two axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length of the compensation、nose of tool compensation
Cutter compensation input: Try to cut measuring input mode
Spindle function: gear、Double analog control, Rigid tapping
Handwheel function: panel、handheld
Handwheel processing: The handwheel processing function
Screen protection: The screen protection function
Tool rest function: Row tool rest、Electric tool post 99 knife
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance、Screw、Radius compensation
The program to edit: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Thread function: Metric and inch Format、Straight thread、Taper thread and so on
Read ahead function: Short line pretreatment line 10000
Password protection: Multi-level password-protected
Input and output: I/O24x24
PLC programming: The user free design PLC function
The control of acceleration and deceleration: Line acceleration and deceleration、Exponential acceleration and deceleration
The encoder line number: Any Settings
User macro program: yes
Electronic gear function: yes

Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
Thread cutting:	G32
cylinder or cone cutting loop:	G90
End face cutting loop:	G94
Screw thread cutting loop:	G92
Fixed cycle of tapping:	G93
Cylindrical rough turning loop:	G71
End face rough turning loop:	G72
Close cutting loop:	G73
End face deep hole drilling loop:	G74
Outside diameter grooving loop:	G75
Composite thread cutting loop:	G76
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15、G16
Metric and inch programming:	G20、G21
Coordinate setup、offset:	G184、G185
Workpiece Coordinate System:	G54 ~ G59
Tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Constant speed cutting:	G96/G97
feed mode:	G98、G99
Returns the starting point:	G26
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28
Delay instruction:	G04
Auxiliary Function:	S、M、T

Dimension (380x226mm)



Application: lathe、Grinding machine、Special machine



CNC Milling Controller NEW16iM/990MDc

Practical and ideal CNC controller



Features

- ★ By adopting the technology of bus Modbus, ARM + DSP + FPGA technology
- ★ Usb and RS232 interface, usb DNC functions (new) ;
- ★ Network remote technology, on-line diagnosis user system directly (new) ;
- ★ Expand to 32G storage, an infinite number of program (new) ;
- ★ Absolute type motor control technology (new) ;
- ★ The fastest speed is 300 m/min, the processing speed is 0.01 ~ 30 m/min (new) ;
- ★ Interpolation cycle is only 2ms, The control accuracy of 0.1 um (new) ;
- ★ Grating ruler full closed loop control technology, the machining accuracy or less 2 um (new) ;
- ★ Short linear program pre-reading technology, satisfy the high speed cutting carved (new) ;
- ★ Chinese program name input technology, the intelligent human-machine interface (new) ;

NEW experience and NEW generation CNC controller

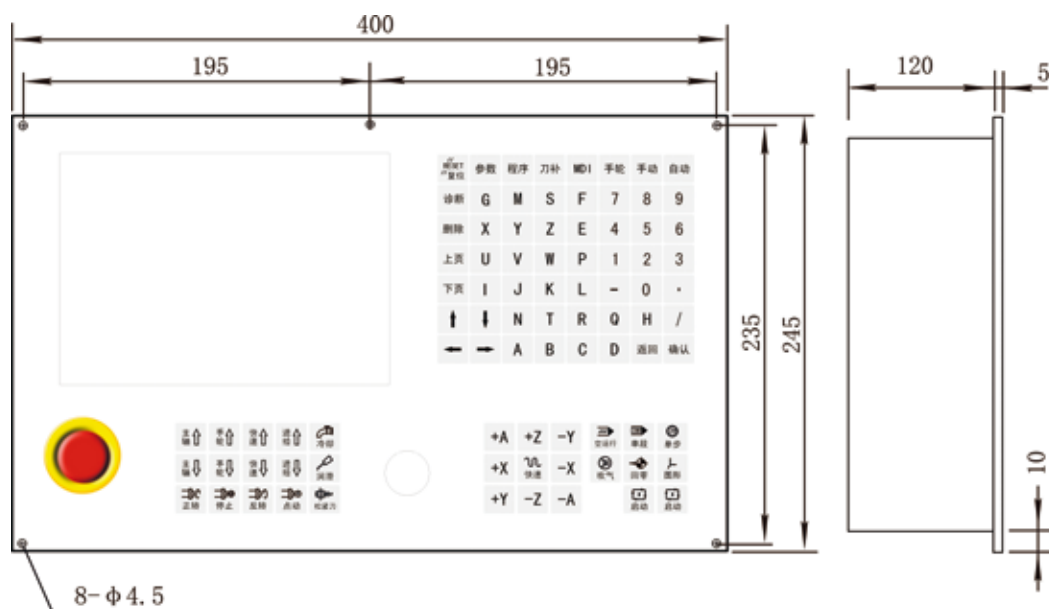
Function

Number of control axis: 3-4 (X、Y、Z、A)
The smallest programming: 0.001mm
The most programming: $\pm 99999.999\text{mm}$
The highest speed: 30m/min
Feed speed: 0.001~15m/min
Continuous manual: one axis or two axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length of the compensation、nose of tool compensation
Spindle function: gear、Double analog control, Rigid tapping
Handwheel function: panel、handheld
Screen protection: The screen protection function
Handwheel processing: The handwheel processing function
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance、Screw、Radius compensation
The program to edit: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Read ahead function: Short line pretreatment line 10000
Password protection: Multi-level password-protected
Input and output: I/O24x24
PLC programming: The user free design PLC function
The control of acceleration and deceleration: Line acceleration and deceleration、Exponential acceleration and deceleration
The encoder line number: Any Settings
User macro program: yes
Electronic gear function: yes

Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
The spiral cutting:	G02/G03
High speed deep drilling loop:	G73
Point drilling loop:	G81、G82
Line cutting drilling loop:	G83
Boring loop:	G85、G86、G89
Tapping loop:	G74、G84
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15/G16
Metric and inch programming:	G20/G21
Programm mode:	G90/G91
Processing plane:	G17、G18、G19
Workpiece Coordinate System:	G54 ~ G59
Tool length compensation:	G43、G44、G49
Tool radius compensation:	G45~G48
C tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Returns the starting point:	G26、G261~G264
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28、G281~G284
Delay instruction:	G04
Auxiliary Function:	S、M、T

Dimension (380x226mm)



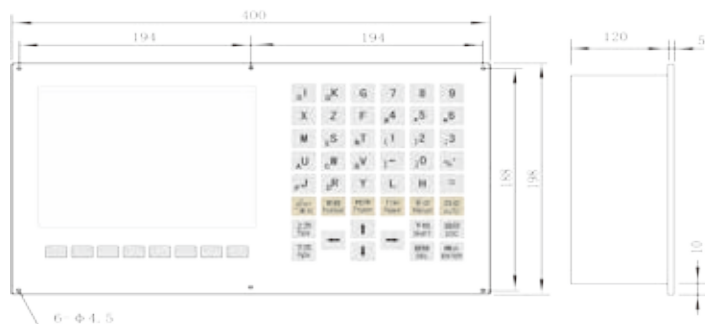
Application: Milling、Tapping、Drilling



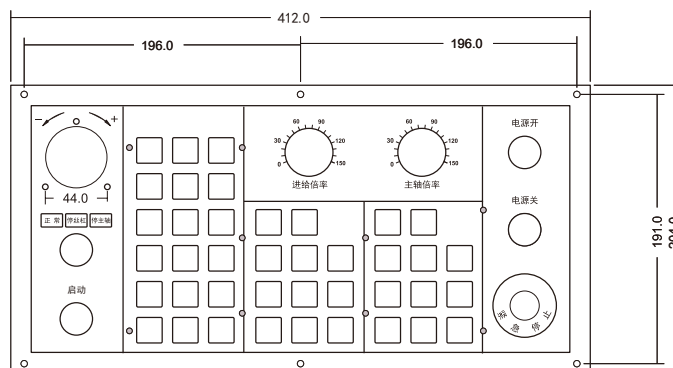
VMC Controller with ATC NEW1000Mic/18Mi



Dimension (380x180mm)



Dimension (390x183mm)



Application: VMC、Grinding、Special machine

Function

Number of control axis: 3-8 (X、Y、Z、A、B、C、Xs、Ys)
The smallest programming: 0.001mm
The most programming: $\pm 99999.999\text{mm}$
The highest speed: 60m/min
Feed speed: 0.001~30m/min
Continuous manual: one axis or multiple axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length compensation、radius nose of tool compensation
Cutter compensation input: Try to cut measuring input mode
Spindle function: Gear、Double analog control, Rigid tapping
Handwheel function: panel、handheld
Handwheel processing: The handwheel processing function
Screen protection: The screen protection function
Tool function: Row tool rest、Electric tool post 99 tools
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance、Screw、Radius compensation
Edit Program: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Thread function: Metric and inch Format、Straight thread、Taper thread and so on
Pre-read function: Short line pre-read 10000 segments
Password protection: Multi-level password-protected
Input and output: I/O 56x24
PLC programming: The user free design PLC function
Acceleration and deceleration: Line、Exponential
The encoder number: Any Settings
User macro program: yes
Electronic gear function: yes
Subpanel: Type A; Type B; Type C; Type E
Application: VMC、Grinding、Speical machine

Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
Thread cutting:	G32
cylinder or cone cutting loop:	G90
End face cutting loop:	G94
Screw thread cutting loop:	G92
Fixed cycle of tapping:	G93
Cylindrical rough turning loop:	G71
End face rough turning loop:	G72
Close cutting loop:	G73
End face deep hole drilling loop:	G74
Outside diameter grooving loop:	G75
Composite thread cutting loop:	G76
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15、G16
Metric and inch programming:	G20、G21
Coordinate setup、offset:	G184、G185
Workpiece Coordinate System:	G54 ~ G59
Tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Constant speed cutting:	G96/G97
feed mode:	G98、G99
Returns the starting point:	G26
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28
Delay instruction:	G04
Macro program:	G65、G66、G67
Auxiliary Function:	S、M、T

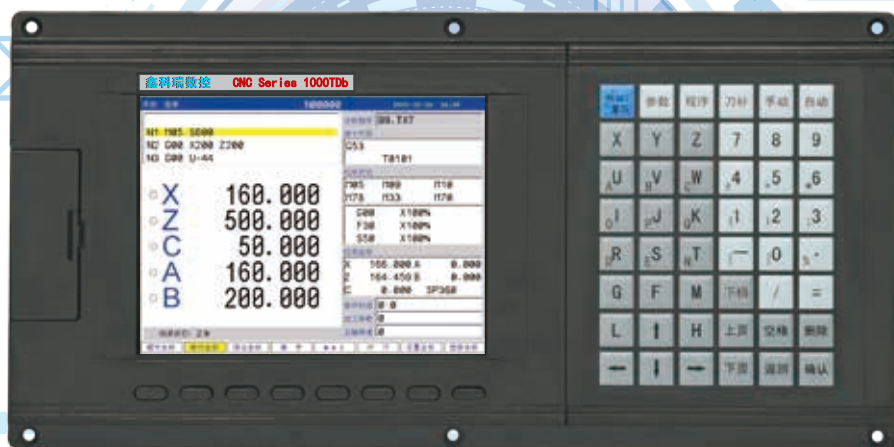
Features

- ★ By adopting the technology of bus Modbus, ARM + DSP + FPGA technology
- ★ Usb and RS232 interface, usb DNC functions (new) ;
- ★ Network remote technology, on-line diagnosis user system directly (new) ;
- ★ Expand to 32G storage, an infinite number of program (new) ;
- ★ Absolute type motor control technology (new) ;
- ★ The fastest speed is 300 m/min, the processing speed is 0.01 ~ 30 m/min (new) ;
- ★ Interpolation cycle is only 2ms, The control accuracy of 0.1 μm (new) ;
- ★ Grating ruler full closed loop control technology, the machining accuracy or less 2 μm (new) ;
- ★ Short linear program pre-reading technology, satisfy the high speed cutting carved (new) ;
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NEW experience and NEW generation CNC controller



CNC Lathe Controller NEW18iT/1000TDc



Type A



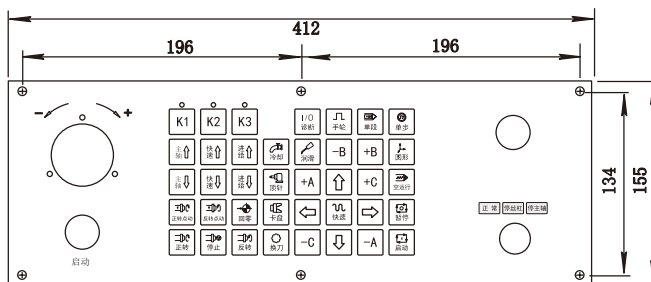
Type B



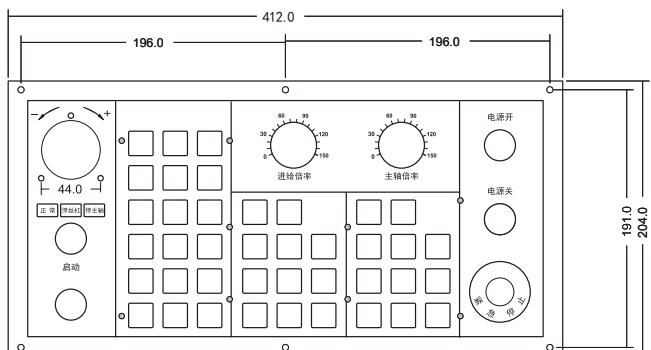
Type C



Dimension (390x125mm)



Dimension (390x183mm)



Application: 2-8 axis lathe machine

Function

Number of control axis: 2-8 (X、Z、C、A、B、Y、Xs、Ys)
The smallest programming: 0.001mm
The most programming: $\pm 99999.999\text{mm}$
The highest speed: 60m/min
Feed speed: 0.001~30m/min
Continuous manual: one axis or multiple axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length compensation、radius nose of tool compensation
Cutter compensation input: Try to cut measuring input mode
Spindle function: Gear、Double analog control, Rigid tapping
Handwheel function: panel、handheld
Handwheel processing: The handwheel processing function
Screen protection: The screen protection function
Tool function: Row tool rest、Electric tool post 99 tools
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance、Screw、Radius compensation
Edit Program: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Thread function: Metric and inch Format、Straight thread、Taper thread and so on
Pre-read function: Short line pre-read 10000 segments
Password protection: Multi-level password-protected
Input and output: I/O 56x24
PLC programming: The user free design PLC function
Acceleration and deceleration: Line、Exponential
The encoder number: Any Settings
User macro program: yes
Electronic gear function: yes
Subpanel: Type A; Type B; Type C; Type E
Application: Lathe、Speical machine

Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
Thread cutting:	G32
cylinder or cone cutting loop:	G90
End face cutting loop:	G94
Screw thread cutting loop:	G92
Fixed cycle of tapping:	G93
Cylindrical rough turning loop:	G71
End face rough turning loop:	G72
Close cutting loop:	G73
End face deep hole drilling loop:	G74
Outside diameter grooving loop:	G75
Composite thread cutting loop:	G76
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15、G16
Metric and inch programming:	G20、G21
Coordinate setup、offset:	G184、G185
Workpiece Coordinate System:	G54 ~ G59
Tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Constant speed cutting:	G96/G97
feed mode:	G98、G99
Returns the starting point:	G26
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28
Delay instruction:	G04
Macro program:	G65、G66、G67
Auxiliary Function:	S、M、T

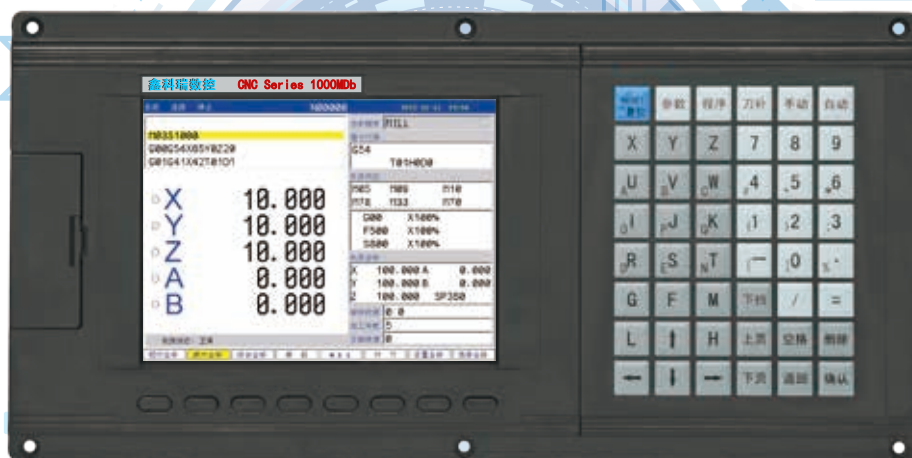
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- ★The fastest speed is 300 m/min, the processing speed is 0.01 ~ 30 m/min (new) ;
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- ★Grating ruler full closed loop control technology, the machining accuracy or less 2 μm (new) ;
- ★Short linear program pre-reading technology, satisfy the high speed cutting carved (new) ;
- ★Chinese program name input technology, the intelligent human-machine interface (new) ;

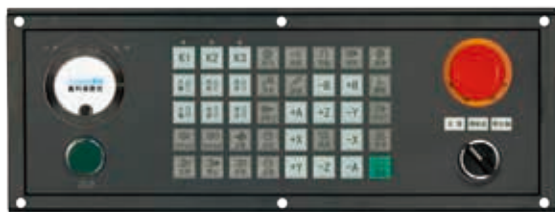
NEW experience and NEW generation CNC controller



CNC Milling Controller NEW18iM/MDc



Type A



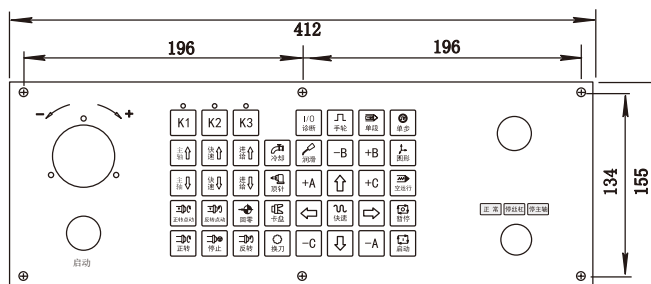
Type B



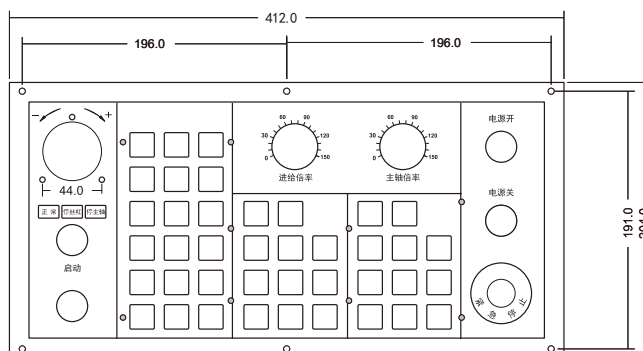
Type C



Dimension (390x125mm)



Dimension (390x183mm)



Application:3-8 axis milling machine

Function

Number of control axis: 3-8 (X、Y、Z、A、B、C、Xs、Ys)
The smallest programming: 0.001mm
The most programming: $\pm 99999.999\text{mm}$
The highest speed: 60m/min
Feed speed: 0.001 ~ 30m/min
Continuous manual: one axis or multiple axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length compensation、radius nose of tool compensation
Cutter compensation input: Try to cut measuring input mode
Spindle function: Gear、Double analog control, Rigid tapping
Screen protection: The screen protection function
Handwheel processing: The handwheel processing function
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance、Screw、Radius compensation
Edit Program: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Pre-read function: Short line pre-read 10000 segments
Password protection: Multi-level password-protected
Input and output: I/O 56x24
LC programming: The user free design PLC function
Acceleration and deceleration: Line、Exponential
The encoder number: Any Settings
User macro program: yes
Electronic gear function: yes
Subpanel: Type A; Type B; Type C; Type E
Application: Milling、Drilling、Tapping、Special Machine

Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
The spiral cutting:	G02/G03
High speed deep drilling loop:	G73
Point drilling loop:	G81、G82
Line cutting drilling loop:	G83
Boring loop:	G85、G86、G89
Tapping loop:	G74、G84
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15/G16
Metric and inch programming:	G20/G21
Programm mode:	G90/G91
Processing plane:	G17、G18、G19
Workpiece Coordinate System:	G54 ~ G59
Tool length compensation:	G43、G44、G49
Tool radius compensation:	G45 ~ G48
C tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Returns the starting point:	G26、G261 ~ G264
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28、G281 ~ G284
Delay instruction:	G04
Auxiliary Function:	S、M、T
辅助功能:	S、M、T

Features

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- ★ Usb and RS232 interface, usb DNC functions (new) ;
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- ★ Short linear program pre-reading technology, satisfy the high speed cutting carved (new) ;
- ★ Chinese program name input technology, the intelligent human-machine interface (new) ;

NEW experience and NEW generation CNC controller



Double-Channel CNC Control NEW20iT/M/2000T/MDc



Features

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- ★ Usb and RS232 interface, usb DNC functions (new) ;
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- ★ Chinese program name input technology, the intelligent human-machine interface (new) ;

NEW experience and NEW generation CNC controller

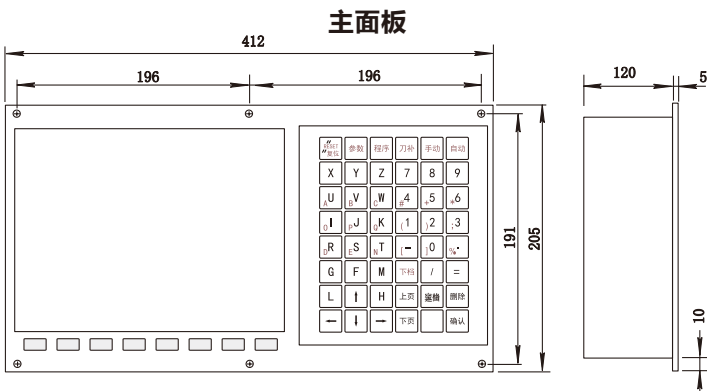
Function

Number of control axis: 2-16
The smallest programming: 0.001mm
The most programming: ±99999.999mm
The highest speed: 60m/min
Feed speed: 0.001~30m/min
Continuous manual: one axis or multiple axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length compensation、radius nose of tool compensation
Cutter compensation input: Try to cut measuring input mode
Spindle function: Gear、Double analog control, Rigid tapping
Screen protection: The screen protection function
Handwheel processing: The handwheel processing function
Screen protection: The screen protection function
Tool function: Row tool rest、Electric tool post 99 tools
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance 、Screw 、Radius compensation
Edit Program: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Thread function: Metric and inch Format、Straight thread、Taper thread and so on
Pre-read function: Short line pre-read 10000 segments
Password protection: Multi-level password-protected
Input and output: I/O 56x24
PLC programming: The user free design PLC function
Acceleration and deceleration: Line 、Exponential
The encoder number: Any Settings
User macro program: yes
Electronic gear function: yes
Subpanel: Type A、Type B
Application: Lathe、Milling、Grinding、Special Mahchine

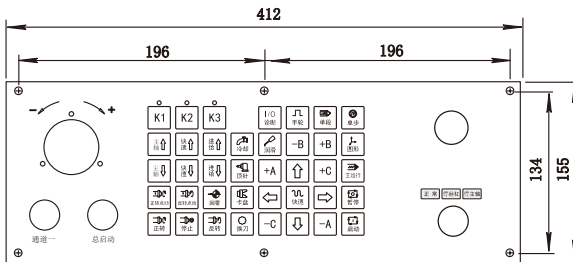
Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
Thread cutting:	G32
cylinder or cone cutting loop:	G90
End face cutting loop:	G94
Screw thread cutting loop:	G92
Fixed cycle of tapping:	G93
Cylindrical rough turning loop:	G71
End face rough turning loop:	G72
Close cutting loop:	G73
End face deep hole drilling loop:	G74
Outside diameter grooving loop:	G75
Composite thread cutting loop:	G76
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15、G16
Metric and inch programming:	G20、G21
Coordinate setup、offset:	G184、G185
Workpiece Coordinate System:	G54 ~ G59
Tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Constant speed cutting:	G96/G97
feed mode:	G98、G99
Returns the starting point:	G26
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28
Delay instruction:	G04
Macro program:	G65、G66、G67
Auxiliary Function:	S、M、T

Dimension (390x183mm)



Dimension (390x125mm)



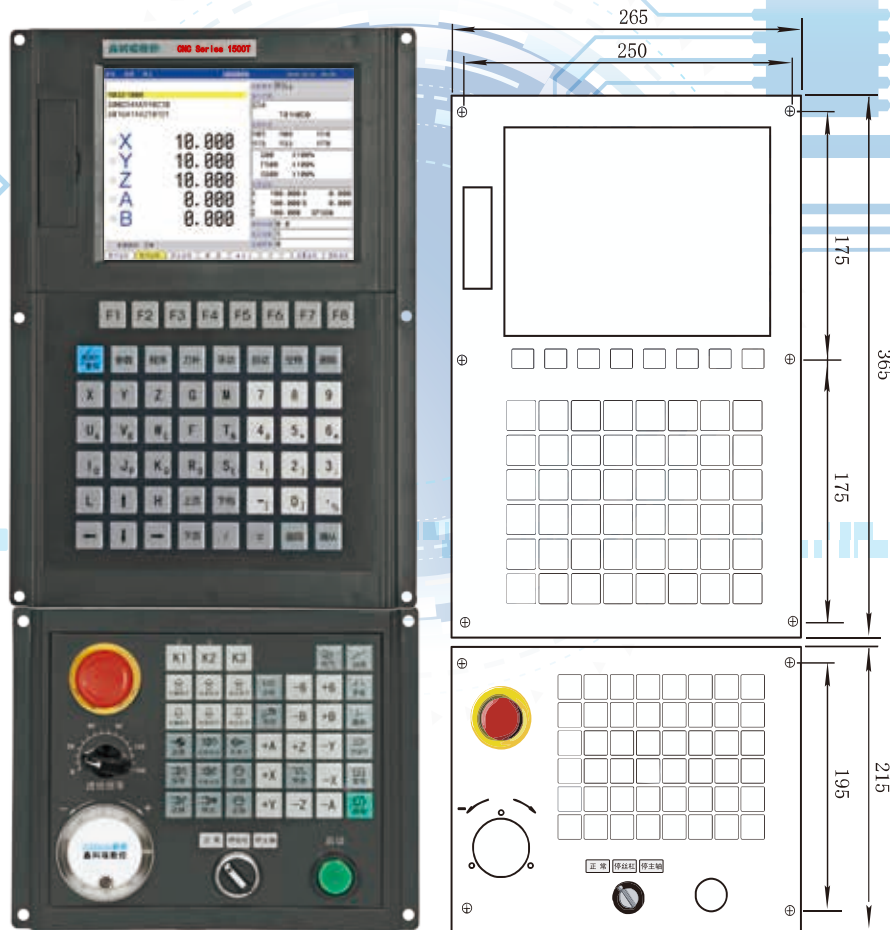
Application: 2-16 axis Double-Channel Lathe、Milling、Grinding、Special Machine



VMC Controller with ATC

NEW15iT/M/1500T/MDc

Dimension (242x560mm)



Application: 2-8 axis Lathe、Milling、VMC、Special Machine

NEW experience and NEW generation CNC controller

Function

Number of control axis: 2-8 (X、Y、Z、A、B、C、Xs、Ys)
The smallest programming: 0.001mm
The most programming: $\pm 99999.999\text{mm}$
The highest speed: 60m/min
Feed speed: 0.001 ~ 30m/min
Continuous manual: one axis or multiple axis at the same time
Line interpolation: Straight line, arc, screw thread interpolation
Cutter compensation: length compensation、radius nose of tool compensation
Cutter compensation input: Try to cut measuring input mode
Spindle function: Gear、Double analog control, Rigid tapping
Screen protection: The screen protection function
Handwheel processing: The handwheel processing function
Communication function: RS232、Usb interface
Compensation function: Cutter、Clearance、Screw、Radius compensation
Edit Program: Relative/Absolute programming、Hybrid programming
Limit position function: Soft limit、hard limit
Pre-read function: Short line pre-read 10000 segments
Password protection: Multi-level password-protected
Input and output: I/O 56x24
LC programming: The user free design PLC function
Acceleration and deceleration: Line、Exponential
The encoder number: Any Settings
User macro program: yes
Electronic gear function: yes
Subpanel: Type A; Type B; Type C; Type E
Application: Milling、Drilling、Tapping、Special Machine

Instruction

Rapid positioning:	G00
Line interpolation:	G01
Arc interpolation:	G02/G03
Thread cutting:	G32
cylinder or cone cutting loop:	G90
End face cutting loop:	G94
Screw thread cutting loop:	G92
Fixed cycle of tapping:	G93
Cylindrical rough turning loop:	G71
End face rough turning loop:	G72
Close cutting loop:	G73
End face deep hole drilling loop:	G74
Outside diameter grooving loop:	G75
Composite thread cutting loop:	G76
Program loop:	G22、G800
Local coordinate system:	G52
Check skip:	G31、G311
Polar programming:	G15、G16
Metric and inch programming:	G20、G21
Coordinate setup、offset:	G184、G185
Workpiece Coordinate System:	G54 ~ G59
Tool radius compensation:	G40、G41、G42
Accurate positioning/Continuous path processing:	G60/G64
Constant speed cutting:	G96/G97
feed mode:	G98、G99
Returns the starting point:	G26
Returns the fixed point:	G25、G61、G60
Returns the reference point:	G28
Delay instruction:	G04
Macro program:	G65、G66、G67
Auxiliary Function:	S、M、T

Features

- ★ By adopting the technology of bus Modbus, ARM + DSP + FPGA technology
- ★ Usb and RS232 interface, usb DNC functions (new) ;
- ★ Network remote technology, on-line diagnosis user system directly (new) ;
- ★ Expand to 32G storage, an infinite number of program (new) ;
- ★ Absolute type motor control technology (new) ;
- ★ The fastest speed is 300 m/min, the processing speed is 0.01 ~ 30 m/min (new) ;
- ★ Interpolation cycle is only 2ms, The control accuracy of 0.1 μm (new) ;
- ★ Grating ruler full closed loop control technology, the machining accuracy or less 2 μm (new) ;
- ★ Short linear program pre-reading technology, satisfy the high speed cutting carved (new) ;
- ★ Chinese program name input technology, the intelligent human-machine interface (new) ;



Double-Channel Drive



Features

- ★ Torque of Motor 100W~11KW;
- ★ Single and double-Channel to choose;
- ★ Could change into torque、speed、position、point-to-point;
- ★ Position control、speed control、servo electrical tool;
- ★ 4 segment location instruction, design point-to-point control freely;
- ★ The accuracy of location 0.01%;
- ★ The input frequency of pulse: less than 500KHZ;
- ★ Analog input: 0~10V;
- ★ Optimization of space vector algorithm, More torque than SPWN、Less noise;
- ★ 300% overload;
- ★ Protection: Over current、Over voltage、Over heat、Short circuit;
- ★ Display: Speed、Current、Position of motor、Error of position、Pulse、Frequency、Alarm;

- **Communication**
- **EasyEncoder**
- **Absolute Encoder**
- **Full closed loop control**
- **Change controlling type online**

Advantages





All series Drive

301 Singal Channel 301K Full closed loop

302 Double Channel 503 Big torque

Product

Model	Current	Power	Torque	Channel	Voltage
NK201i	20A	1.2KW	0.1~6NM	1 bus absolute	~220V
NK301i	30A	2.3KW	1~15NM	1 bus absolute	
NK302i	2x30A	2x2.3KW	1~15NM	2 bus absolute	
NK501i	50A	3.7KW	1~18NM	1 bus absolute	
NK751i	75A	5.0KW	1~42NM	1 bus absolute	
NK503i	50A	7.5KW	1~55NM	1 bus absolute	~380V
NK753i	75A	11KW	1~70NM	1 bus absolute	
NK301iK	30A	2.3KW	1~15NM	1 bus absolute with full closed loop	~220V
NEW201	20A	1.2KW	0.1~6NM	1 absolute	~220V
NEW301	30A	2.3KW	1~15NM	1 absolute	
NEW202	2x20A	2x1.2KW	0.1~6NM	2 absolute	
NEW302	2x30A	2x2.3KW	1~15NM	2 absolute	
NEW501	50A	3.7KW	1~18NM	1 absolute	
NEW751	75A	5.0KW	1~42NM	1 absolute	
NEW503	50A	7.5KW	1~55NM	1 absolute	~380V
NEW753	75A	11KW	1~70NM	1 absolute	
DS201	20A	1.2KW	0.1~6NM	1 servo	~220V
DS301	30A	2.3KW	1~15NM	1 servo	
DS202	2x20A	2x1.2KW	0.1~6NM	2 servo	
DS302	2x30A	2x2.3KW	1~15NM	2 servo	
DS301K	30A	2.3KW	1~15NM	1 servo with full closed loop	
DS501	50A	3.7KW	1~18NM	1 servo	
DS751	75A	5.0KW	1~42NM	1 servo	~380V
DS503	50A	7.5KW	1~55NM	1 servo	
DS753	75A	11KW	1~70NM	1 servo	