



Connection requirement

- 1:Power line: Tricolor power wire and yellow-green ground wire
- Temperature control line: Two thin wires of 110°C thermistor
- 2:Cooling water outlet
- 3:Pressure for tool changing and de-dusting: 0.4MPa
- 4:Pressure of air sealing: 0.2MPa
- 5:Inlet air pressure for tool-removing: 0.70MPa
- 6:Cooling water inlet: delivery of water pump head 12m(Don't connect wrong!)
- 7:Proximity switch: Two PNP(normally open) N.O. for tool-removing and tool-mounting
- 8:Encoder cable
- 9:Hanging ring

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Connection Description

- 1:Three colored wires are connected with U, V, W phases/ Yellow-green wire is connected with earth
- Temperature controlled line is connected externally with temperature control protector
- 2:The quick plug of cooling water outlet is 8/6 hose
- 3:The quick plug for tool-changing and dust-removing is 6/4 hose
- 4:The quick plug for air-sealing is 6/4 hose
- 5:The quick plug for tool-removing is 6/4 hose
- 6:The quick plug of cooling water inlet is 8/6 hose
- 7:Connect brown wire of proximity switch with +24 VDC, and blue line connected to 0VDC
- Signal loading end connected to +24VDC/the other end connected to black line
- 8:Encoder reading head GS05A-MI-S(1Vpp signal output)
- 9:Hanging ring applied for mounting

Special warning

- 1.It shall not change tools before complete stop of spindle.The manual tool-changing button shall be unavailable while spindle is rotating;otherwise it would cause the block of spindle!
- 2.The compressed air shall be clean and dry with filtering precision of 0.1 μ m! Air sealing shall be normally open.It is recommended to apply two levels of filtering with precisions of 0.5 μ m/0.1 μ m, and the filter shall be equipped with automatic drainage.
- 3.The air seal shall be kept normally open!
- 4.During the operation,the frequency converter shall be set strictly according to the U-f curve of the spindle.

Parameters of PTC110 three-core thermistor		
DC power supply	Maximum DC25V/100mA	
20~25°C	$\leq 300\Omega$	
$\leq 90^\circ\text{C}$	$\leq 750\Omega$	
105°C	$\leq 1650\Omega$	
110°C	Rated function temperature	
115°C	$\geq 3990\Omega$	
$\geq 125^\circ\text{C}$	$\geq 12K\Omega$	
$\leq 160^\circ\text{C}$	Maximum storage temperature	

Encoder wiring, circular connector:

Signal	Terminal pin number	Colour
VCC+5V	1	Brown
GND	2	White
A+	3	Green
A-	4	Yellow
B+	5	Blue
B-	6	Red
Z+	7	Grey
Z-	8	Pink
External isolation(shielding)	10	

Note:1. The remaining terminals are not connected
2. Encoder:GS05A-MI-S(Chord wave 1Vpp)

Model GDL150-40-12/12B

Voltage 380V

Power 12kw

Current 25A

Frequency 400-500Hz

Rotation 12000-15000rpm

Phase 4P

Rotation Direction Counterclockwise viewed from the end of spindle extension

Tool Holder BT40 With key

Pop-rivet BT40-45°

Weight 47KG

Water-cooled Asynchronous Motor Spindle						Jiangsu HQD Spindle
标记	处数	分区	更改文件号	签名	年、月、日	
设计			标准化			
审核						
工艺			批准			
						阶段标记 重量 比例
S						1:3
						共 1 张 第 1 张

GDL150-40-12Z/12B

Outline drawing with keys