

# Standard specifications

WD002NHD61201

1st Edition: April 20, 2015  
2nd Edition: October 01, 2015

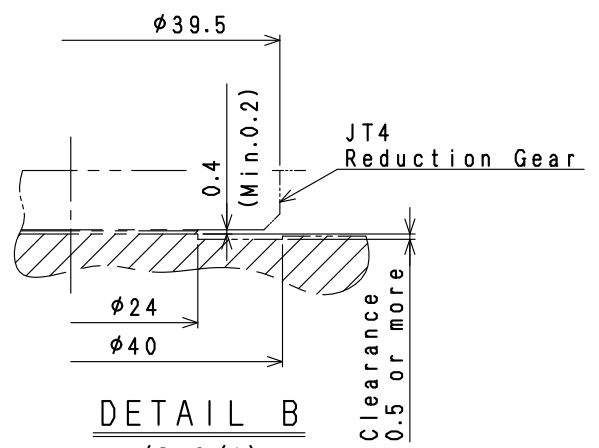
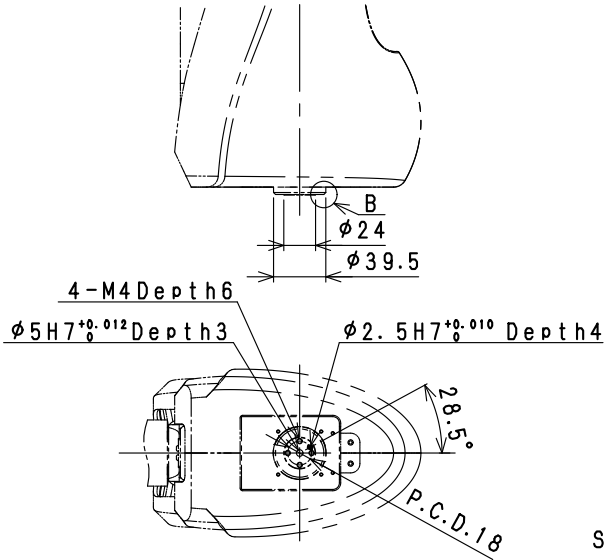
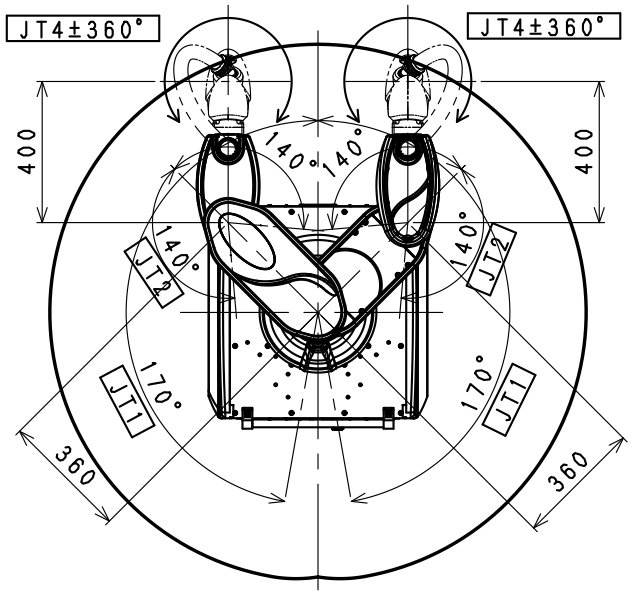
KAWASAKI HEAVY INDUSTRIES, LTD.  
ROBOT DIVISION

Specification :	90101-2366DEB
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## 1. Robot Specifications

〔1〕Robot Arm				
1. Model	3WD002N-A201			
2. Type	Horizontally articulated robot			
3. Degree of freedom	4 axes × 2 arms			
4. Axis specifications	Operating axis		Motion range	Note
	Arm1 (lower arm)	Arm rotation (JT1)	-170° - +170°	Specification varies in case of other options or conversion
		Arm rotation (JT2)	-140° - +140°	
		Arm up-down (JT3)	0mm - +150mm	
		Wrist swivel (JT4)	-360° - +360°	
	Arm 2 (upper arm)	Arm rotation (JT1)	-140° - +500°	Specification varies in case of other options or conversion
		Arm rotation (JT2)	-140° - +140°	
		Arm up-down (JT3)	0mm - +150mm	
Wrist swivel (JT4)		-360° - +360°		
5. Positional repeatability	±0.05mm (at the tool mounting surface)			
6. Max. payload	2 kg (1 arm)			
7. Load capacity of wrist	axis No.	Max. torque	Moment of inertia*	
	JT4	3.9 N·m	0.086 kg·m <sup>2</sup>	
* If more detailed data is required for your application, please contact Kawasaki.				
8. Driving motor	Brushless AC Servomotor			
9. Motion range & dimensions	See attached drawing			
10. Mass	about 145 kg (include controller, without options)			
11. Color	Arm: Munsell N-95 equivalent			
12. Installation	Floor mounting			
13 Environmental condition	Temperature	5 - 40°C		
	Humidity	35 ~ 85 % (no dew, nor frost allowed)		
14. Dressing	Air piping (φ6 x 1/arm)			
15. Options	Built-in double/single solenoid valve, 8 ports or less in each arm			
	Arm ID 12 inputs and 8 outputs (Use output signal for the model with valve option mounted)			
	Air filter-regulator-mist separator combination (Pressure relief 3 port valve, Regulator, Mist separator)			
	CC-Link			
	Vision system (PC, Camera and lighting)			
	External Axis			
	Caster stopper			
	Safety shield			
16. Others	Contact Kawasaki about maintenance parts and spare parts.			

[2] Controller			
1. Model	30D61H-C310		
2. Structure	Outside air intake cooling system		
3. Number of controlled Axes	Max. 12 Axes (6 axes x 2 arms)		
4. Drive system	Full Digital Servo System		
5. Types of motion control	Teach mode	Joint, Base, Tool operation mode	
	Repeat mode	Joint, Linear interpolation	
6. Teaching method	Teaching or AS language programming		
7. Memory capacity	4MB (includes system memory)		
8. External operation signals	External Emergency stop		
9. General I/O signal	Input signal	Std. 16 ports, Max 32 ports	includes Operation panel, dedicated signals
	Output signal	Std. 8 ports, Max 16 ports	
10. Operation Panel	Teach/Repeat switch, Start and Stop switches, Emergency stop switch		
11. Power requirement	AC200-AC220V±10%、50/60Hz±2%、Single phase, 2.0kVA		
12. Ground	Less than 100 ohms (robot dedicated ground), Leakage current: max 10mA		
13. Environment conditions	Temperature	5 - 40°C	
	Storage temperature	-25°C - +70°C	
	Relative humidity	35 - 85% (no dew, nor frost allowed)	
	Altitude	ASL 0m - 1000m	
	Contact Kawasaki for the use of exceeding the condition described above.		
14. Options			
	Teaching device	Tablet PC(Android OS) + Tablet software Dedicated terminal software (Windows OS)	
	Harness	Primary power source cable	
15. Others	Contact Kawasaki for maintenance parts and spare parts.		



※Recommended tolerance of tool to mount on output flange.

Since the gap between output rotation part of reduction gear and oil seal is very little (min. 0.2), having clearance on tool shall be recommended.

**VIEW A**  
(S=1/4)

