

Simple  and friendly

Kawasaki Robot

EUROPE



MC/MS-SERIES

up to 5 kg payload

»Simple and friendly«
**THIS IS THE
FUTURE NOW**

Medicine and pharmaceutical engineering are the fields of application of these clean-room robots.

»40 years` experience and sophisticated robotics«

Maximum speed, precision and cleanability in clean-room quality are the factors backing this robot's success.

»Your goals are our mission«

It is with intelligence and flexibility that Kawasaki has created the most efficient robots of their class. Combined with a highly developed control system, you will meet the requirements for automation ready for the future.



MC004N/MS005N

1. Application

Medicine and pharmaceutical engineering are the fields of application of these robots. From handling samples to making up individual drugs, they are the perfect tools for automation.

2. Compact arm

The extremely compact arm design is simply ideal for application in cramped locations, as is frequently the case in applications in medicine and pharmaceutical engineering.

3. Clean-room quality

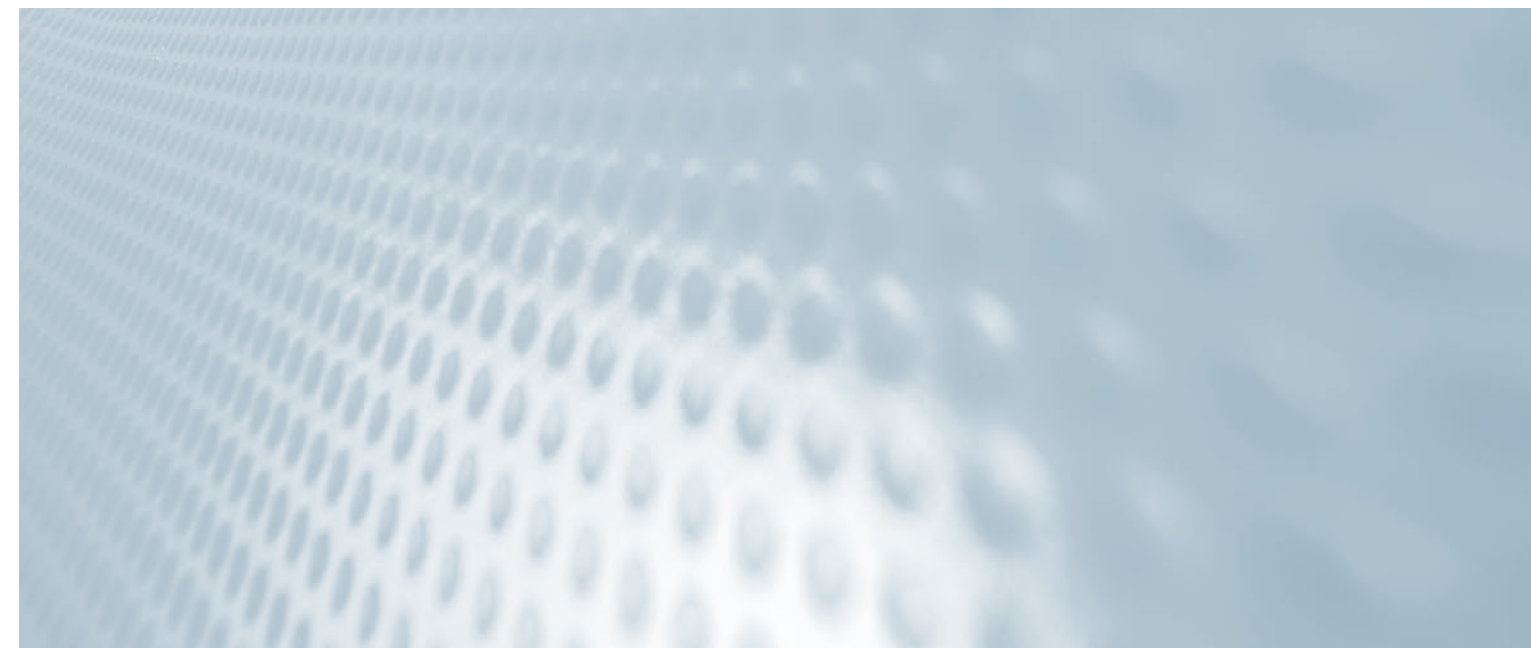
Protection class IP67 (Base MC004N: IP65) combined with ISO Class 5 make these robots ideal working equipment in clean room environment. Here Kawasaki MS005N is made completely of stainless steel and VHP (gaseous H2O2) resistant.

4. Hollow wrist

No troublesome cables no matter at which point! The 6-axled integration and the user media fully installed in the arm make adaption of completely enclosed gripper tools possible.

5. Maximum flexibility

MS005N is designed as a 7-axled robot, so that any constraining contours encountered can be best circumvented. Complex motion-sequences and loading or unloading processes - even "around corners" - do not present any problems to this stainless-steel robot.



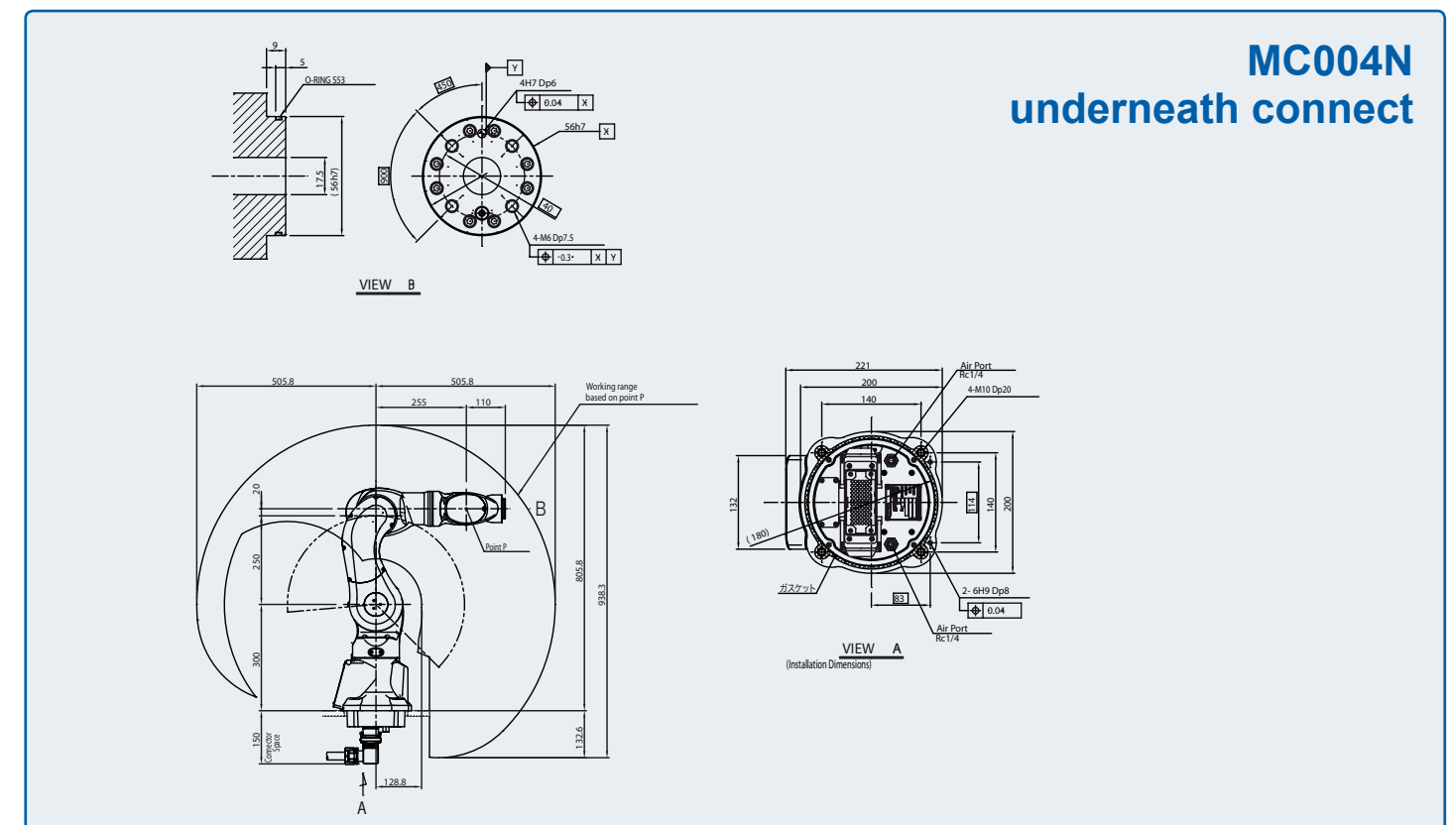
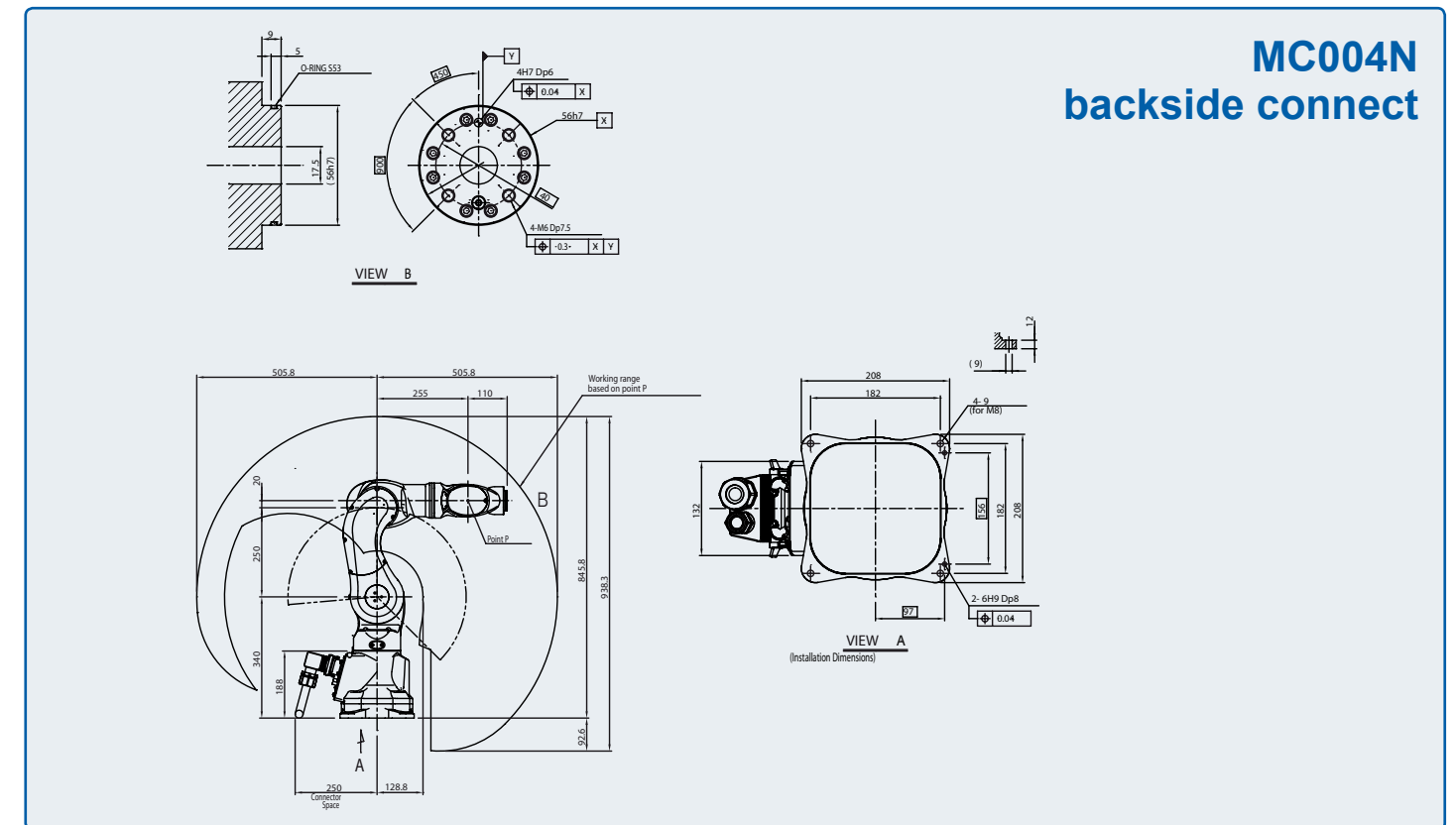
MODEL	MC004N	MS005N
Degrees of Freedom	6 Axis	7 Axis
Maximum Reach*1	505 mm	600 mm
Maximum Payload	4 kg	5 kg
Repeatability (Measure Point: Middle of Flange)	± 0,05 mm	± 0,1 mm
Weight	25 kg	50 kg
Controller	E70	
Color	White epoxy	stainless steel (316L)
Installation	Floor and Ceiling	
Ambient Conditions	Temperature	10–35°
	Humidity	35–85% (Dew and frost-protected)
	Others	Installation Ambience must be free of: • Inflammable or corrosive Liquid or Gas • Electric Noise Interferences
Clean Room Class	ISO Class 5	
Protection Class	Wrist Unit: IP67/ Basic Axis: IP65	IP67

*1 Distance between Centre of Axis 1/ Axis 5 (MS005N: Axis 6)

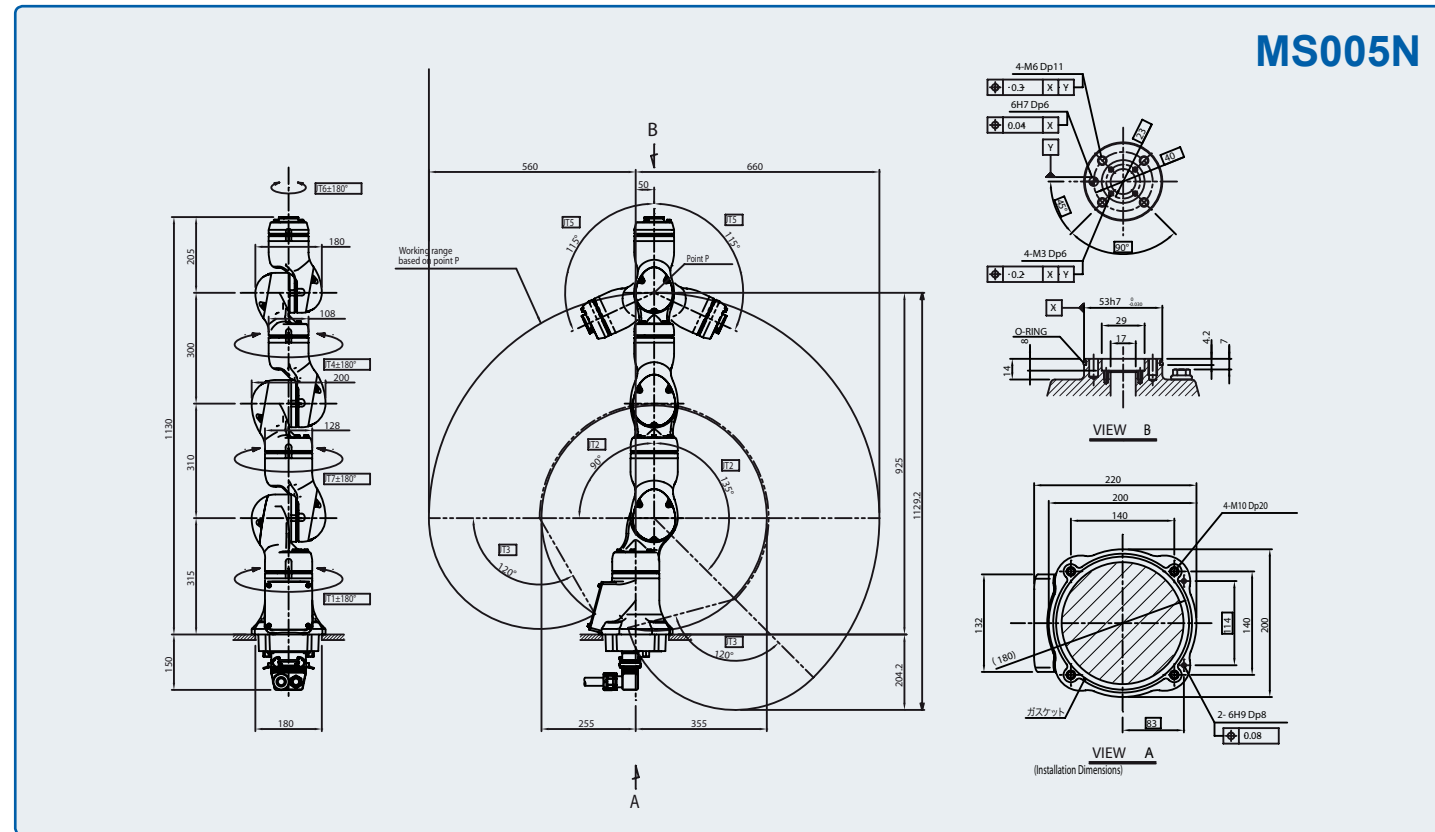


The MC004N / MS005N are available in different configurations. Please contact Kawasaki Robotics GmbH for more information.

Motion Range & Dimensions



Motion Range & Dimensions



E CONTROLLER

The E-Controller – technically mature, easy to operate and powerful

Compact, upgradeable and user-friendly

All established bus systems (Interbus, Profibus, Profi-Net...) are supported. The integrated Soft PLC may be edited via Teach Pendant or even more comfortably at the PC (option). Customized user interfaces may be programmed and used for the simplified control of the robot and also peripheral devices.

Motor power ON and program start may be activated directly via the Teach pendant unit. The parallel display of two information screens (e.g. position and signal data) facilitates the process control. The system boot time is below one minute (approximately 25 sec.).

System

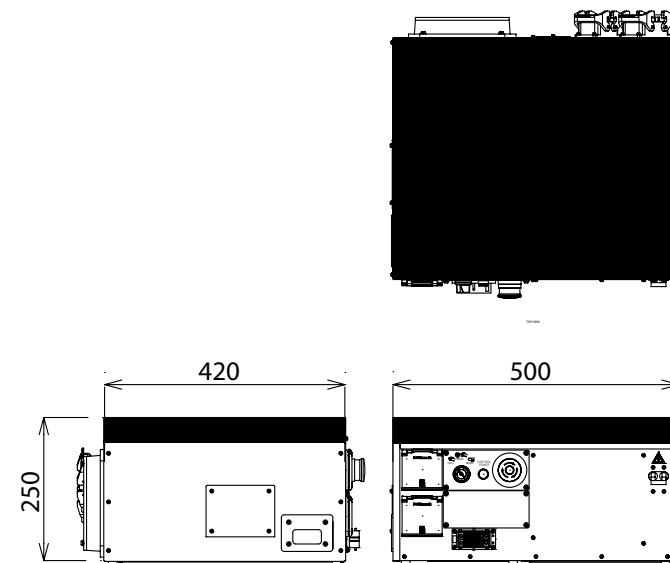
Ultra-fast execution of programs, loading and storing processes as well as a precise continuous-path control and much more thanks to the up-to-date processor design and powerful components. 8 MB RAM (80,000 steps) and USB interface as standard..

Maintenance

»Simple and friendly« – Due to the optimized modular configuration of the Kawasaki controller, maintenance work is user-friendly. Furthermore, integrated service and diagnostic tools guarantee increased safety in operation. Remote diagnosis via Ethernet is also included in the standard package.

MODEL	E70	
Number of Controlled Axes	up to 8	
Servo Motor	Brushless AC Servomotor	
Position Detector	Absolute Encoder	
Servo System	Full digital servo system	
Programming	Block and AS-Language	
Coordinate Systems	Joint, Base, Tool, external Tool (optional)	
Motion Control	Joint-, Linear- and Circular interpolation	
Signals	External	Motor power, Signal HOLD, etc.
	Input	32/64/96
	Output	32/64/96
Memory	8 MB (ca. 80.000 steps)	
External Memory	1 x USB	
Data Interfaces	PC, Network, etc.	2 x RS-232C, 2 x Ethernet
	Fieldbus (optional)	DeviceNet®, PROFIBUS®, PROFINET®, INTERBUS-S®, Ethernet/IP®, CC-Link®, CANopen®, Modbus TCP®, Control Net®
Teach Pendant	5,7 Zoll TFT LCD with Touch Panel, Emergency Stop, Teach-Lock, Deadman SW, Motor power, Program start, Hold/Run	
Operation Panel	Emergency Stop SW, Control Power, TEACH/REPEAT	
Cable Length (Controller – Arm), (Controller – Teach Pendant)	10 m (optional up to 15 Meter)	
Dimensions (WxDxH in mm)	500x420x250	
Weight	30 kg	
Power Requirements	AC 200–240V ± 10%, 50/60Hz, 1 Phase, max. 1,5 kVA	
Ground	<100 Ω, Max. Leakage 30 mA	
Safety Category	3, Performance Level d (EN ISO13849-1:2008)	
Ambience Temperature/Humidity	0–45° C/35–85% (Dew and frost-protected)	
Surface Character	galvanized/chromed	

Note: Not all Options can be combined.



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Cautions to be taken to ensure safety

For those persons involved with the operation / service of your system, including Kawasaki Robot, they must strictly observe all safety regulations at all times. They should carefully read the Manuals and other related safety documents.

Products described in this catalogue are general industrial robots. Therefore, if a customer wishes to use the robot for special purposes, which might endanger operators or if the robot has any problems please contact us. We will be pleased to help you.

BE CAREFUL: All photos illustrated in this catalogue are frequently taken after removing safety fences and other safety devices stipulated in the safety regulations from the Robot operation system.

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