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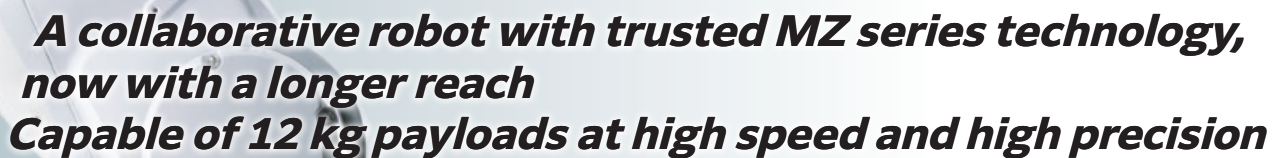
NEW



MZ type 12 kg Payload Collaborative Robot



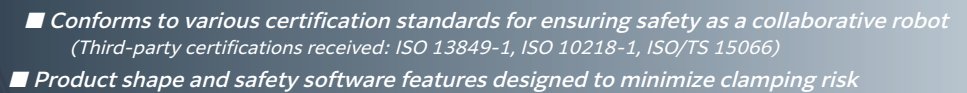
CMZ12



**A collaborative robot with trusted MZ series technology,
now with a longer reach
Capable of 12 kg payloads at high speed and high precision**

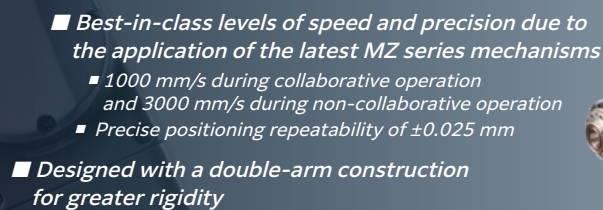


Superb safety features

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- Conforms to various certification standards for ensuring safety as a collaborative robot (Third-party certifications received: ISO 13849-1, ISO 10218-1, ISO/TS 15066)
 - Product shape and safety software features designed to minimize clamping risk

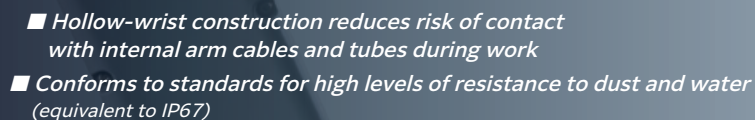


High speed and high precision

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- Best-in-class levels of speed and precision due to the application of the latest MZ series mechanisms
 - 1000 mm/s during collaborative operation and 3000 mm/s during non-collaborative operation
 - Precise positioning repeatability of ± 0.025 mm
 - Designed with a double-arm construction for greater rigidity



Useful for a wide range of applications

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- Hollow-wrist construction reduces risk of contact with internal arm cables and tubes during work
 - Conforms to standards for high levels of resistance to dust and water (equivalent to IP67)



CMZ12

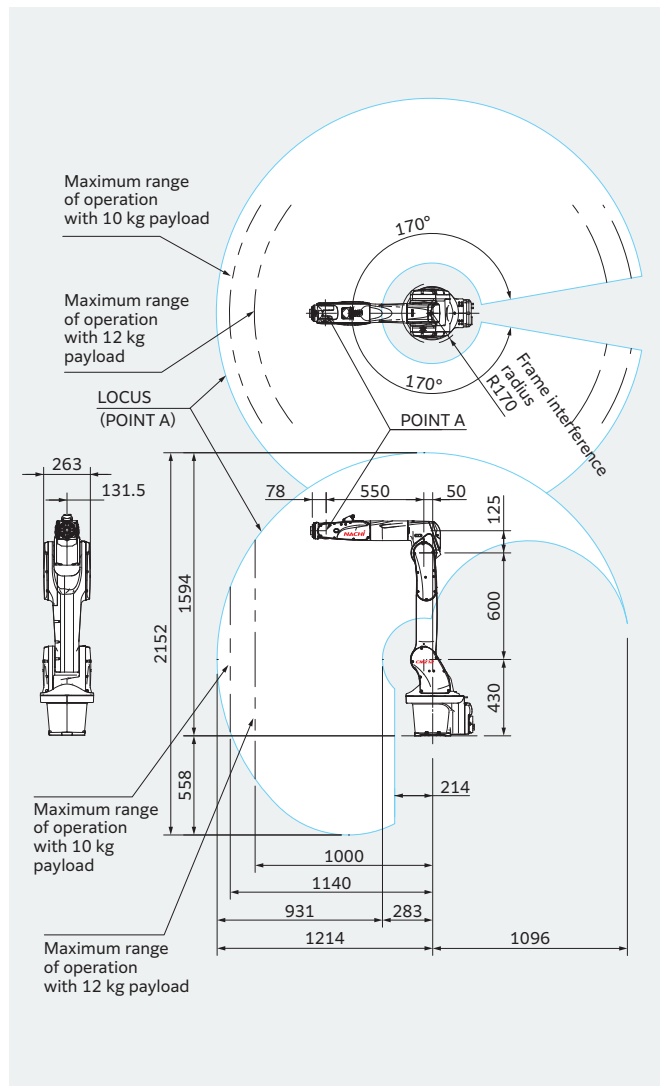
Basic Specification of Robot

Item	Specification		
Model	CMZ12-01		
Structure	Articulated robot		
Axis	6		
Drive system	AC servo motor		
Maximum motion range	J1	$\pm 2.97\text{rad}(\pm 170^\circ)$	
	J2	Initialization	$-1.75 \sim +0.70\text{rad}(-100 \sim +40^\circ)$
		MAX	$-2.36 \sim 1.40\text{rad}(-135 \sim +80^\circ)$
	J3	$-2.68 \sim 2.74\text{rad}(-153 \sim +157^\circ)$	
	J4	$\pm 3.32\text{rad}(\pm 190^\circ)$	
	J5	Initialization	$\pm 1.57\text{rad}(\pm 90^\circ)$
MAX		$\pm 2.09\text{rad}(\pm 120^\circ)$	
J6	$\pm 6.28\text{rad}(\pm 360^\circ)$		
Maximum Velocity	J1 [with 12kg payload]	4.71rad/s (270°/s) [2.09rad/s(120°/s)]	
	J2 [with 12kg payload]	3.14rad/s (180°/s) [2.09rad/s(120°/s)]	
	J3 [with 12kg payload]	5.41rad/s (310°/s) [3.14rad/s(180°/s)]	
	J4	7.68rad/s(440°/s)	
	J5	7.68rad/s(440°/s)	
	J6	12.22rad/s(700°/s)	
TCP speed	Non-collaborative [with 12 kg payload]	3000mm/s [1000mm/s]	
	Collaborative	1000mm/s	
Payload weight	8kg(Max.12kg)		
Maximum static load torque	J4	20N·m	
	J5	20N·m	
	J6	10.4N·m	
Maximum moment of inertia	J4	0.60kg·m ²	
	J5	0.60kg·m ²	
	J6	0.20kg·m ²	
Position repeatability	$\pm 0.025\text{mm}$		
Maximum Reach	1214mm		
Air tubes	$\phi 6 \times 2$ (3 solenoid valves installed as standard) Available pressure range:0.1 ~ 0.5MPa		
Application cables	20 core or 12 core(Depends on option selection)		
LAN	None, 8 core 1 line, 8 core 2 line (Depends on option selection)		
Installation	Floor/Inverted		
Mounting Condition	Ambient Temperature:0 ~ 40°C Ambient Humidity:20 ~ 85%RH(No dew or frost allowed) Vibration:Not more than 0.5G(4.9m/s ²)		
Protection class	IP67 equivalent(dust-proof, liquid-resistant)		
Clean rating	Equivalent ISO CLASS 5		
Noise level	75dB		
Robot weight	66kg		

1[rad]=180/ π [°],1[N·m]=1/9.8[kgf·m]

- Note that the information represented in this document, such as rated values, specifications, and dimensions, is subject to change without notice to improve the product.
- An explosion-proof version is not available.

Dimensions and operating range



- When using the robot for collaborative operation, ensure that its stand is rigid and firmly secured.
- If parts such as the stand or installation vibrate due to robot operation or the surrounding circumstances, the collision-detection system of the CMZ12-01 might erroneously detect a collision.



I/O 20 core, LAN 8 core 1 Line



Collaborative mode indicator lamp



Stopper cover that reduces the risk of getting caught



Offset shape that reduces the risk of getting caught

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The specifications are subject to changes without notice.

In case that an end user uses this product for military purpose or production of weapon, this product may be liable for the subject of export restriction stipulated in the Foreign Exchange and Foreign Trade Act. Please go through careful investigation and necessary formalities for export.



CATALOG NO.

R7714E

MD-MIZUNO