

# G10

High Rigidity = Ultra High Speed + Heavy Payload

- Arm Lengths from 650 – 850 mm
- Reduced Residual Vibration for Faster Accel/Decel Rates

# G20

Long Reach and Heavy Payload

- Arm Lengths from 850 – 1,000 mm
- Monocoque Design Provides for Higher Rigidity



## Specifications

		G10-65x			G10/20-85x			G20-A0x		
Mounting type		Tabletop	Ceiling	Wall	Tabletop	Ceiling	Wall	Tabletop	Ceiling	Wall
Arm length	Arm #1, #2	650 mm			850 mm			1000 mm		
Max. operating speed	Joints #1, #2	8800 mm/s			11000 mm/s			11500 mm/s		
	Joint #3	180 (150 clean) =1100 mm/sec			420 (390 clean) =2350 mm/sec					
	Joint #4	2400 deg/s			G10=2400 deg/s / G20=1700 deg/s			1700 deg/s		
Weight (cables not included)		46 kg	51 kg	48 kg	53 kg	50 kg	55 kg			
Repeatability	Joints #1, #2	±0.025 mm								
	Joint #3	±0.01 mm								
	Joint #4	±0.005 deg								
Max. motion range	Joint #1	±152 deg	±107 deg	±152 deg	±107 deg	±152 deg	±107 deg			
	Joint #2	±152.5 deg	±130 deg	±152.5 deg	For Clean/Protected models below Z=-360 ~-390			±151deg		
	Joint #3 Std	180 mm/420 mm								
	Joint #3 Clean	150 mm/390 mm								
	Joint #4	±360 deg								
Payload	Rated	5 kg			G10=5 kg/G20=10 kg			10 kg		
	Maximum	10 kg			G10=10 kg/G20=20 kg			20 kg		
Standard cycle time <sup>1</sup>		0.34 sec			0.37 sec			0.42 sec		
Joint #4 allowable moment of inertia <sup>2</sup>	Rated	0.02 kg•m2			G10=0.02 kg•m2 /G20=0.05 kg•m2			0.05 kg•m2		
	Maximum	0.25 kg•m2			G10=0.25 kg•m2 /G20=0.45 kg•m2			0.45 kg•m2		
Motor power consumption	Joint #1	750 W								
	Joint #2	600 W								
	Joint #3	400 W								
	Joint #4	150 W								
Joint #3 downward force		250 N								
Electric lines		15Pin (D-Sub), 9Pin (D-sub)								
Pneumatic lines		Ø4 mm × 2, Ø6 mm × 2								
Installation environment		Standard/Cleanroom <sup>3</sup> & ESD/Protection <sup>4</sup>								
Available controllers		RC180, RC620+, RC700A								
Safety standards		CE, ANSI/RIA15.06-2012, UL 1740								

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<sup>1</sup> Cycle time based on round-trip arch motion (300 mm horizontal, 25 mm vertical) with 2 kg payload (path coordinates optimized for maximum speed). | <sup>2</sup> When payload center of gravity is aligned with Joint #4; if not aligned with Joint #4, set parameters using INERTIA command. | <sup>3</sup> Complies with ISO Class 3 (ISO14644-1) and older Class 10 (less than 10 0.1µm particles per 28,317cm<sup>3</sup>:1cft) cleanroom standards. | <sup>4</sup> G10/G20 dustproof robots with optional bellows comply with IP54; G10/20 protected models comply with IP65.

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