

### Supporting Factory Optimization Next-Generation Robot Controller

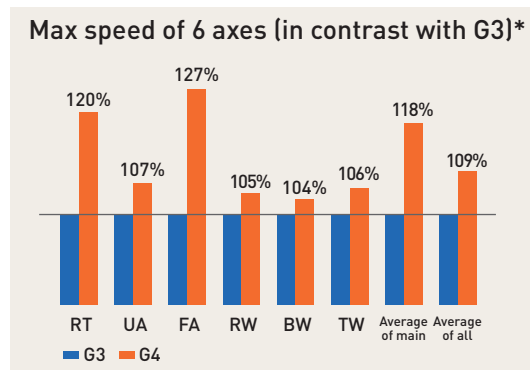
#### Next Generation Robot Controller

Supporting Factory Optimization due to Improved motion accuracy, with Touch panel and 3D display and Open interface specifications.



#### Highly accurate and efficient welding experience

Precise fine-tuning of the acceleration and deceleration control has increased the maximum speed of the axes by up to 27%. The control algorithm has also been revised to optimize positioning accuracy. These improvements significantly reduce work stoppages that affect productivity in demanding workplaces. Additionally, it also improves product quality and cycle time, which is essential for companies to succeed.

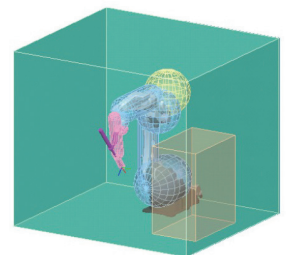


\*Example of measurement in our environment



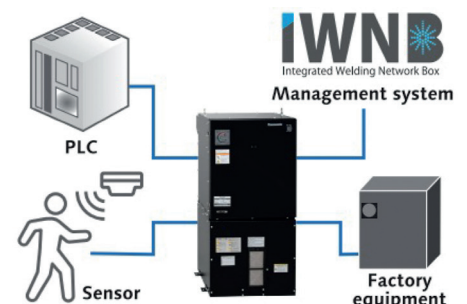
#### Easier operation due to touchscreen and 3D visualization

The resolution of the panel display has been increased by a factor of 1.6 and the new touch screen function can also be easily operated with work gloves. The high-resolution display also features 3D visualization for the first time. All of this allows the programmer to operate the device much more easily and intuitively.



#### Compatibility and flexibility for networked production

The new G4 controller utilizes its high-speed and parallel processing capabilities to offer several additional functions - and with more safety and flexibility. Examples such as the adoption of the OPC UA open communication interface and software-based functional safety. Connection to new safety sensors and devices for data acquisition or automation is facilitated without compatibility or hardware limitations.



## Safe housing design

The primary input cable and connection cable are arranged at the rear, the TP cable at the front. This prevents tripping hazards at the sides and protects both operators and machines.



M-C/built-in external axis cables arranged on the back.



Name	WG4	WGH4
Memory capacity	40.000 points	40.000 points
Position control method	Software servo system	Software servo system
External memory I/F	TP: SD memory card slot x 1 USB 2.0 (Hi-Speed supported) x 2	TP: SD memory card slot x 1 USB 2.0 (Hi-Speed supported) x 2
Number of control axes	Simultaneous 6 axes (max. 27 axes)	Simultaneous 6 axes (max. 27 axes)
Input/output signals	Dedicated signal: Input 6 points, Output 8 points General-purpose signal: Input 40 points, Output 40 points Safety input/output: Input 8 points, Output 8 points	Dedicated signal: Input 6 points, Output 8 points General-purpose signal: Input 40 points, Output 40 points Safety input/output: Input 8 points, Output 8 points
Input power supply	Supports input 380 ~ 440 V (± 10%), 50 Hz/60 Hz	Supports input 380 ~ 440 V (± 10%), 50 Hz/60 Hz
Input cable	14 mm <sup>2</sup> or more	14 mm <sup>2</sup> or more
Ground	14 mm <sup>2</sup> or more	14 mm <sup>2</sup> or more
Applicable welding method	CO <sub>2</sub> /MAG/Stainless steel MIG Pulse MAG/Stainless steel pulse MIG	CO <sub>2</sub> /MAG/Stainless steel MIG Pulse MAG/Stainless steel pulse MIG
Output	30 A – 350 A DC	40 A – 500 A DC
Output voltage	12 V – 36 V DC	16 V – 50 V DC
Rated duty cycle (10-minute cycle)	CO <sub>2</sub> /MAG/Stainless steel MIG: - 310 A : 100% 311 – 350 A : 80% Pulse MAG/Stainless steel pulse MIG: - 270 A : 100% 271 – 350 A : 60%	CO <sub>2</sub> /MAG/Stainless steel MIG: - 450 A : 100% 451 – 500 A : 80% Pulse MAG/Stainless steel pulse MIG: - 450 A : 100% 451 – 500 A : 60%

# Panasonic

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