

GP12

Efficient, High-Speed Robot



Key Benefits

Highest payload, speeds and wrist allowable moment in its class

Space-efficient design

Engineered for easy installation, operation and maintenance

Specifications

12 kg payload

1,440 mm horizontal reach

2,511 mm vertical reach

±0.08 mm repeatability

Applications

Assembly

Material Handling

Packaging

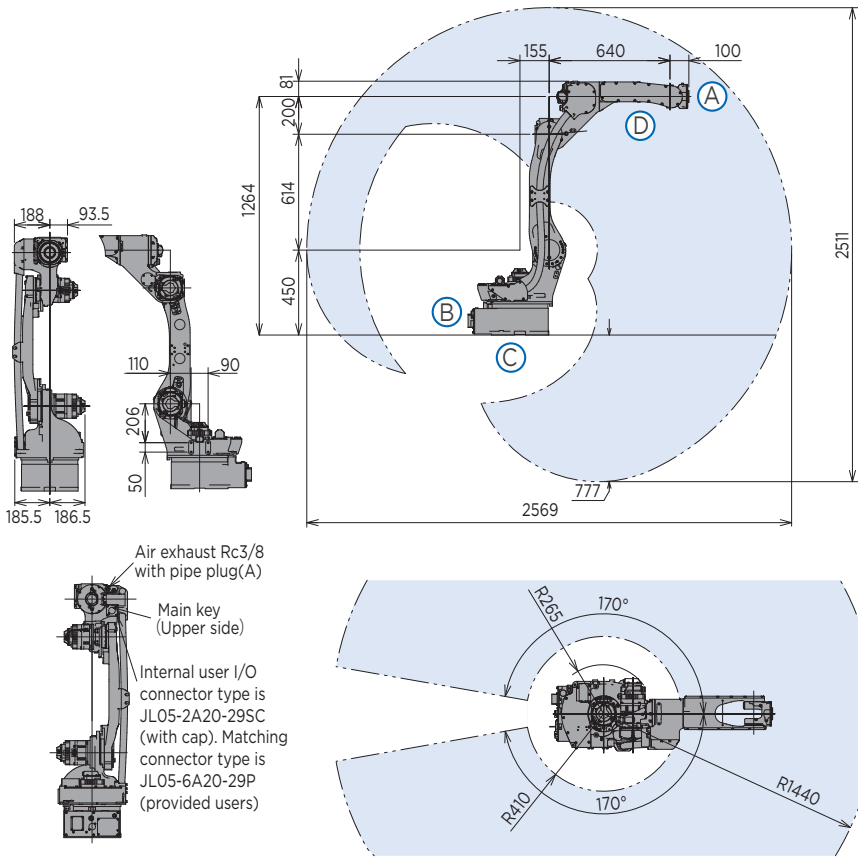
Controllers

YRC1000

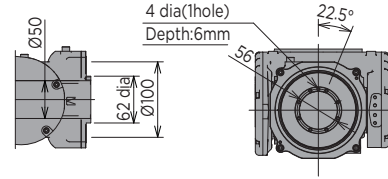
MLX300 *
Software Option

- Increase your productivity with the fast and efficient GP12 robot.
- All axis speeds have been increased by up to 15% - surpassing other robots in its class.
- Reduced interference design allows close proximity placement of robots.
- Maximum reduction of acceleration/ deceleration times for all robot positions.
- Hollow arm structure eliminates cable interference.
- Highest wrist allowable moment for accurate and repeatable handling.
- Higher payload allows wider range of tooling integration such as double gripper for multi-handling operations.
- IP67-rated wrist and IP54 body (IP65 optional).
- Single power and control cable reduces wiring time and increases work efficiency.
- New robot harness design for improved diagnostics and maintenance.
- Home position data can be saved without battery connection for easy maintenance.
- Ideal for high-volume assembly, handling and packaging applications.
- The GP-series robots are controlled by Yaskawa's new high-performance YRC1000 controller that is built to a global standard and does not require a transformer for input voltages ranging from 380VAC to 480VAC. It is highly compact, resulting in reduced space requirements. Its I/O communication speed is improved by as much as 50% for improved work efficiency.

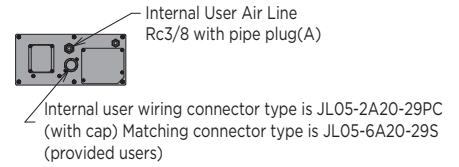
GP12 Robot



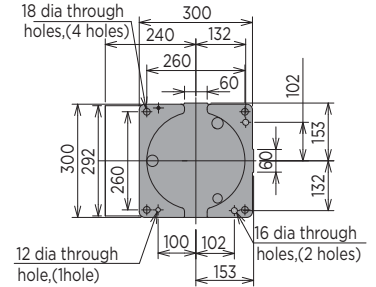
VIEW A



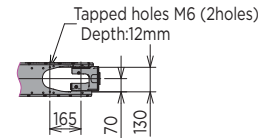
VIEW B



VIEW C



VIEW D



All dimensions are metric (mm) and for reference only. Request detailed drawings for all design/engineering requirements.

SPECIFICATIONS

Axes	Maximum motion range [°]	Maximum speed [°/sec.]	Allowable moment [N•m]	Allowable moment of inertia [kg•m ²]
S	±170	260	-	-
L	+155/-90	230	-	-
U	+150/-85	260	-	-
R	±200	470	22	0.65
B	±150	470	22	0.65
T	±455	700	9.8	0.17

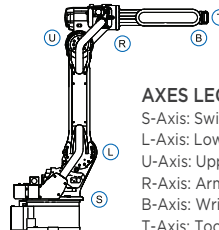
Mounting Options: Floor, Wall or Ceiling

* The MLX300 software option is not available for use with arc or spot welding, coating, dispensing, cutting or other "path control" applications. MLX300 fieldbus cards, I/O cards and vision equipment must be purchased separately from the supplier. All peripherals are programmed using a PLC.

Item	GP12
Controlled axes	6
Maximum payload [kg]	12
Repeatability [mm]	±0.08
Horizontal reach [mm]	1,440
Vertical reach [mm]	2,511
Weight [kg]	130
Internal user I/O cable	17 conductors (+ ground)
Internal user air line	(1) 3/8" connection
Power requirements	380-480 VAC
Power rating [kVA]	1.5

Options

- Robot risers and base plates
- MotoSight™ 2D and 3D vision systems



AXES LEGEND

- S-Axis: Swivel Base
- L-Axis: Lower Arm
- U-Axis: Upper Arm
- R-Axis: Arm Roll
- B-Axis: Wrist Bend
- T-Axis: Tool Flange

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