

GP280L

POWERFUL, EXTENDED-REACH ROBOT

KEY BENEFITS

Extended reach and high axis speeds allow use in a variety of applications

High payload for heavy part processing

Engineered for easy installation, operation and maintenance

Single robot-to-controller cable connection enables fast setup

SPECIFICATIONS

280 kg payload

3,114 mm horizontal reach

3,552 mm vertical reach

0.1 mm repeatability

APPLICATION

Dispensing

Material Cutting

Material Handling

Machine Tending

Press Tending

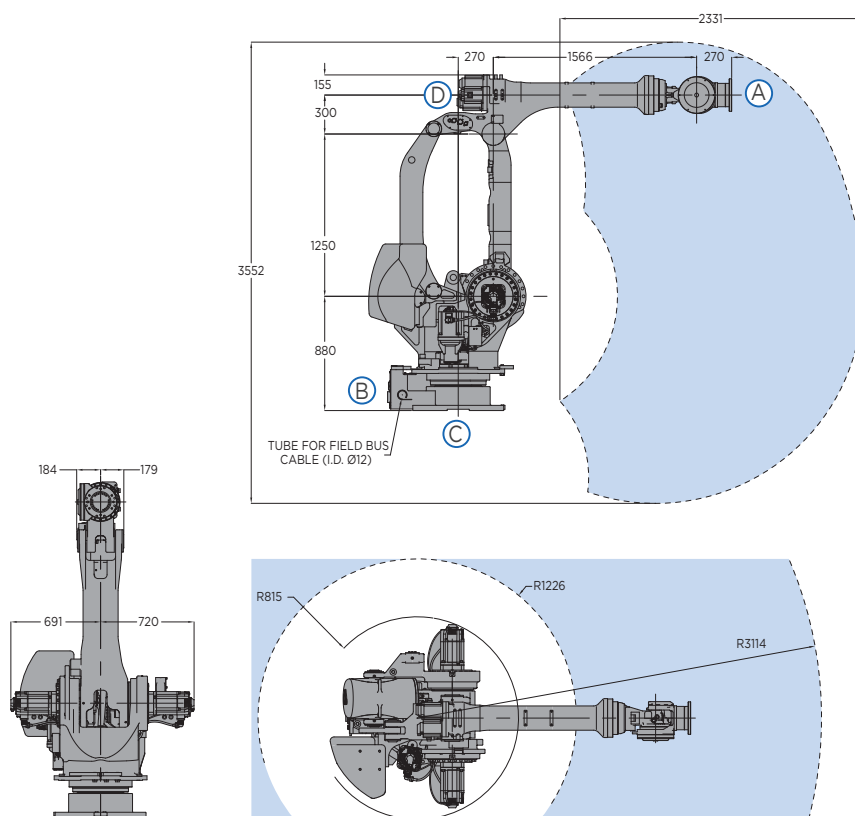
CONTROLLER

YRC1000

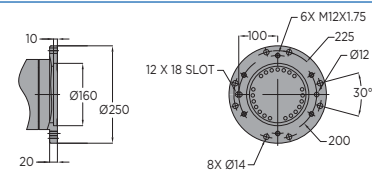


- Increase productivity with the extended-reach, six-axis GP280L robot.
- 280-kg payload capacity and high moment of inertia ratings provide superior performance for large part and heavy payload handling applications.
- Exceptionally fast axis speeds and acceleration capabilities reduce cycle time and increase production output.
- Streamlined upper arm allows easy access to parts in tight spots and avoids potential interference with fixtures, improving application flexibility.
- Wide wrist motion range eliminates interference and improves application flexibility.
- Reduced interference design allows close proximity placement of robots for high-density workcells.
- Ideal for "jigless" applications where robot positions part for processing by other robots or two robots handle a single part.
- Cables and air lines are routed through robot base to upper arm to increase cable life, enhance safety and reduce teaching time.
- Cable installation tube facilitates fieldbus routing through the S-axis.
- Mounting for peripheral equipment is provided in multiple locations to make integration easier.
- Single power and control cable reduces wiring time and increases work efficiency.
- Modular robot harness design for improved diagnostics and maintenance.
- Home position data can be saved without battery connection for easy maintenance.
- The GP280L has an IP67-rated wrist and an IP54 body standard.
- The GP280L can be floor-mounted. Brakes are included on all axes.
- Compact YRC controller utilizes a lightweight standard teach pendant with intuitive programming.

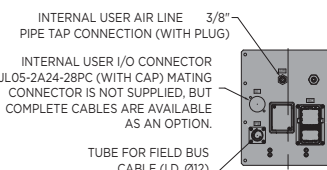
GP280L ROBOT



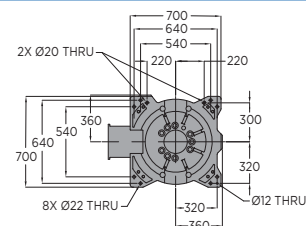
VIEW A



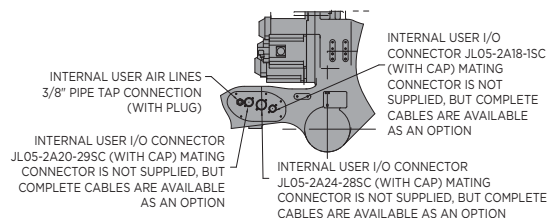
VIEW B



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	Allowable moment	Allowable moment of inertia
	degrees	°/sec	N·m	kg·m ²
S	±180	110	-	-
L	+90/-45	90	-	-
U	+15.5/-120	90	-	-
R	±360	125	1,960	220
B	±125	125	1,960	220
T	±360	205	950	140

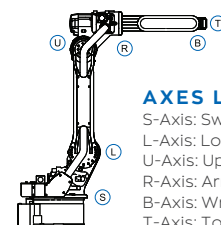
Mounting Options: Floor

* The MLX300 software option is not available for use with arc or spot welding 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	Unit	GP280L
Controlled axes		6
Maximum payload	kg	280
Repeatability	mm	0.1
Horizontal reach	mm	3,114
Vertical reach	mm	3,552
Weight	kg	2,380
Internal user I/O cable		24 conductors w/ ground
Internal user air line		(1) 3/8" connection
Power requirements		380-480 VAC
Power rating	kVA	7.5

OPTIONS

- Robot risers and base plates
- Extended length manipulator cables
- Wide variety of fieldbus cards
- External axes
- PLC integration via MLX300 software option*
- Functional Safety Unit (FSU)
- MotoSight™ 2D and 3D vision



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

YASKAWA

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