

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

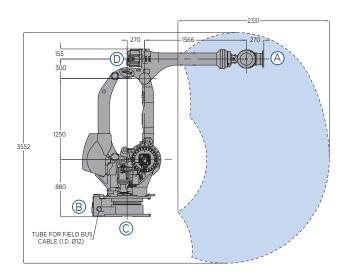
CONTROLLER

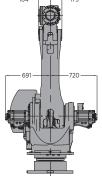
YRC1000

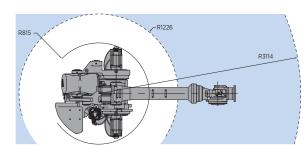


- Increase productivity with the extended-reach, six-axis GP280L robot.
- 280-kg payload capacity and high moment of inertia ratings provide superior performance for large part and heavy payload handling applications.
- Exceptionally fast axis speeds and acceleration capabilities reduce cycle time and 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.

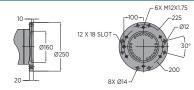
- Cables and air lines are routed through robot base to upper arm to increase cable life, enhance safety and reduce teaching time.
- Cable installation tube facilitates fieldbus routing through the S-axis.
- Mounting for peripheral equipment is provided in multiple locations to make integration easier.
- 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.







VIEW A



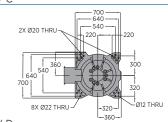
VIEW B

INTERNAL USER AIR LINE 3/8"
PIPE TAP CONNECTION (WITH PLUG)

INTERNAL USER I/O CONNECTOR JL05-2A24-28PC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED, BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION.

TUBE FOR FIELD BUS CABLE (I.D. Ø12)

VIEW C



VIEW D

INTERNAL USER AIR LINES ¬ 3/8" PIPE TAP CONNECTION (WITH PLUG)

INTERNAL USER I/O CONNECTOR JL05-2A20-29SC (WITH CAP) MATING CONNECTOR IS NOT SUPPLIED, BUT COMPLETE CABLES ARE AVAILABLE AS AN OPTION INTERNAL USER I/O
CONNECTOR JL05-2AI8-ISC
(WITH CAP) MATING
CONNECTOR IS NOT
SUPPLIED, BUT COMPLETE
CABLES ARE AVAILABLE
AS AN OPTION

INTERNAL USER I/O CONNECTOR
JL05-2A24-28SC (WITH CAP) MATING
CONNECTOR IS NOT SUPPLIED, BUT COMPLETE
CABLES ARE AVAILABLE AS AN OPTION

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•m²
S	±180	110	-	-
L	+90/-45	90	-	-
U	+15.5/-120	90	-	-
R	±360	125	1,960	220
В	±125	125	1,960	220
Т	±360	205	950	140

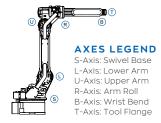
Mounting Options: Floor

Item Unit GP280L Controlled axes 6 Maximum payload kg 280 0.1 Repeatability mm Horizontal reach mm 3,114 Vertical reach mm 3,552 Weight 2,380 Internal user I/O cable 24 conductors w/ ground (1) 3/8" connection Internal user air line Power requirements 380-480 VAC kVA 7.5 Power rating

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





^{*}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.