

# PL190

## HIGHLY VERSATILE PALLETIZING ROBOT

### KEY BENEFITS

Versatile, high-speed robot for palletizing applications

High allowable moment of inertia handles unbalanced loads effectively

One-piece upper arm for reduced mass and increased durability

Highly reliable

### SPECIFICATIONS

190 kg payload

3,159 mm horizontal reach

3,024 mm vertical reach

0.05 mm repeatability

### APPLICATION

Case Palletizing

Bag Palletizing

De-Palletizing

Layer Picking

Layer Forming

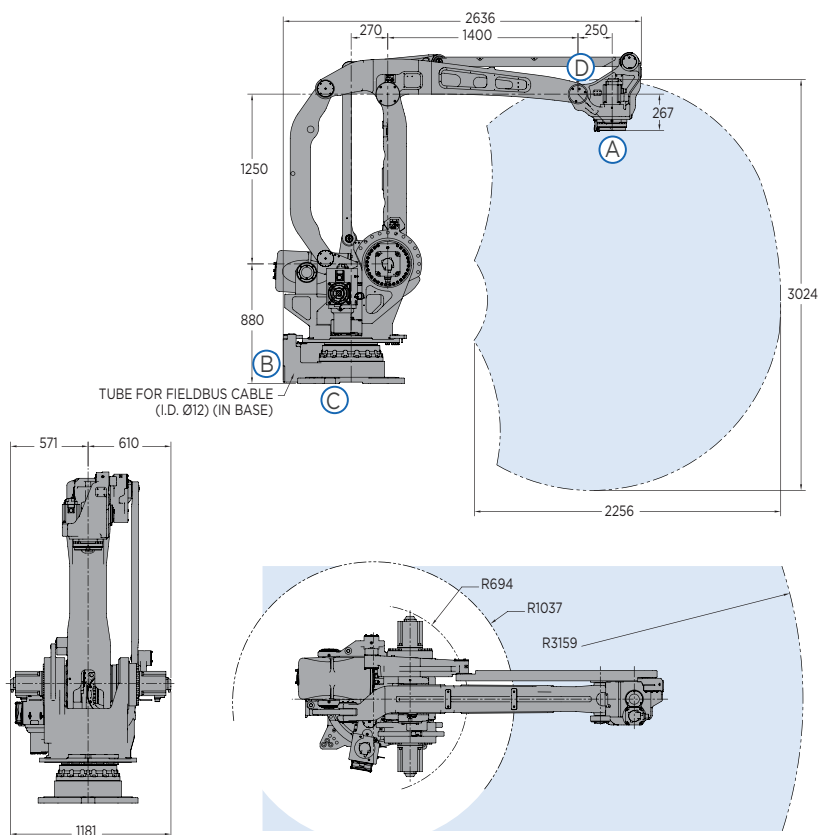
### CONTROLLER

YRC1000

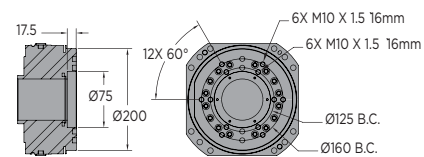


- Increase productivity with the powerful and efficient 4-axis PL190 robot.
- Performance-driven design and large work envelope enable a variety of palletizing applications, layer picking and other logistical tasks for end-of-line or distribution automation.
- Exceptionally fast axis speeds and acceleration reduce cycle time and increase production throughput.
- 75 mm T-axis pass-through facilitates easy connections to end-of-arm tool.
- T-axis features high allowable moment of inertia; asymmetric loads are handled effectively without compromising speed or performance.
- Parallel-link design for strength, rigidity and stabilization of high moment/inertia loads. Heavy-duty bearings provide smooth arm rotation.
- Internally routed airlines and cables from base to the end-of-arm tool maximize reliability.
- Cable installation tube facilitates fieldbus routing to the upper arm and/or gripper.
- 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 PL190 has an IP67-rated wrist and IP54 body as standard.
- The PL190 can be floor-mounted. Brakes are included on all axes.
- Available with either the Standard Teach Pendant or the Smart Pendant.
- Available with PalletSolver® software for fast and easy creation of palletizing patterns.

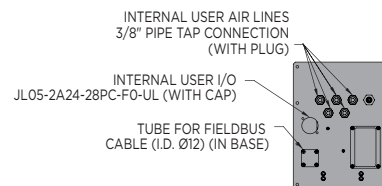
# PL190 ROBOT



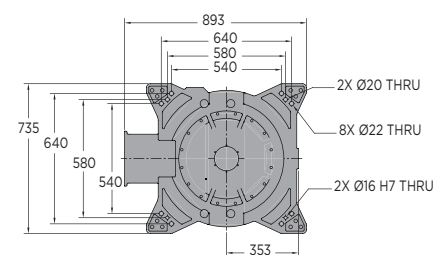
VIEW A



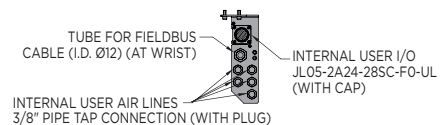
VIEW B



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 <sup>2</sup>           |
| S    | ±180                 | 140           | -                | -                           |
| L    | +90/-45              | 145           | -                | -                           |
| U    | +15.5/-120           | 145           | -                | -                           |
| T    | ±360                 | 420           | -                | 90                          |

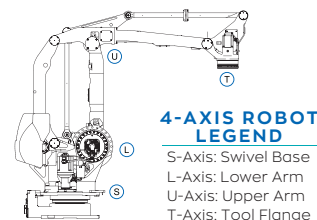
Mounting Options: Floor

\* 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 | PL190                   |
|-------------------------|------|-------------------------|
| Controlled axes         |      | 4                       |
| Maximum payload         | kg   | 190                     |
| Repeatability           | mm   | 0.05                    |
| Horizontal reach        | mm   | 3,159                   |
| Vertical reach          | mm   | 3,024                   |
| Weight                  | kg   | 1,680                   |
| Internal user I/O cable |      | 24 conductors w/ ground |
| Internal user air line  |      | (5) 3/8" connection     |
| Power requirements      |      | 380-480 VAC             |
| Power rating            | kVA  | 9.5                     |

## OPTIONS

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



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