Adept Viper 900

The Viper 900 is an articulated robot arm designed for applications such as assembly, material handling, packaging, and machine tending. With a 912mm reach and a 7kg maximum payload, the six-axis Viper robot provides a large usable working area in a compact footprint. Adept's powerful controls are fully embedded into the compact amplifier, saving valuable floor space and reducing installation costs and complexity. The unique hollow wrist design further simplifies cabling, and improves reliability by minimizing cable interference with other objects in the workspace. The Viper 900 features a standard IP67 rating and corrosion resistant materials for easy wash down. All Adept robots include Adept ACE software, a powerful point-and-click application development environment, that speeds deployment with offline programming, 3D process emulation, and optional vision and conveyor tracking integration. Viper robots can also be programmed directly from a PLC, minimizing training and deployment time by using familiar ladder logic programming languages (IEC 61131-3).

Product Features

- Large useable working area in a compact footprint
- Fully integrated air cabling, IO cabling, and solenoid valves
- Standard IP67 dustproof and waterproof rating
- Slim arm design with hollow wrist
- Standard Adept ACE software for offline programming and 3D emulation

Product Benefits

> Minimizes the space required for work cells

> Reduces installation time and improves reliability

> Reduces downtime and simplifies cleaning in industrial environments

> Reduced interference with work space peripherals and simplified cabling for end-of-arm-tooling

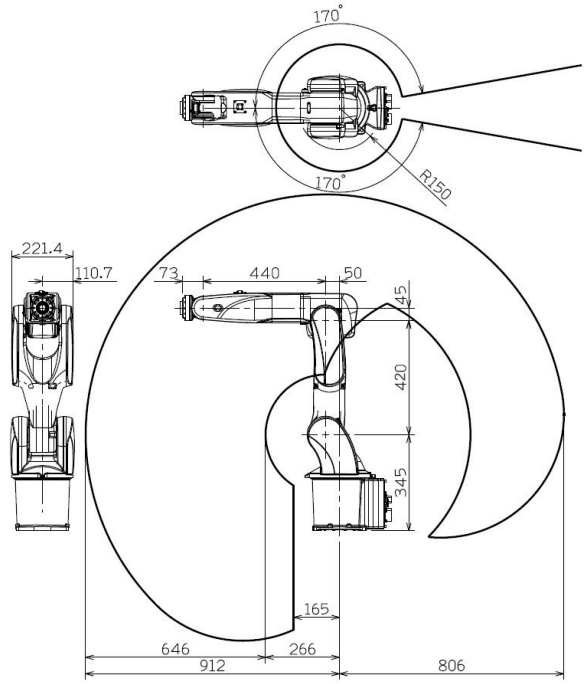
> Reduce system deployment time

Specifications

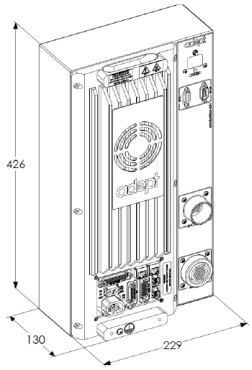
Reach	912 mm
Payload	Max. 7 kg
Joint Ranges	
Joint 1	± 170°
Joint 2	- 170, +50
Joint 3	- 10, +245
Joint 4	± 190°
Joint 5	± 120°
Joint 6	± 360°
Inertia Moment (max.)	
Joint 4	0.47 kgm2
Joint 5	0.47 kgm2
Joint 6	0.15 kgm2
Joint Speeds	
Joint 1	300°/sec
Joint 2	280°/sec
Joint 3	360°/sec
Joint 4	550°/sec
Joint 5	550°/sec
Joint 6	1000°/sec
Repeatability	
XYZ	± 0.03 mm
Pass-Through Connections	
(routed from robot base to link four)	
Electrical	10
Pneumatic	6 mm (x2)
Brakes	Joints 1 - 6
Mounting	Floor, Table, & Ceiling
Weight	40 kg
Environmental Requirements	
Ambient Temperature	5 - 40 °C
Humidity Range	5 - 90 % (non-condensing)
Power Requirements for eMotionBlox-60N	
24 VDC : 6 A	
200 - 240 VAC : 10 A, single-phase	
CE Compliant	
Ingress Protection	IP67

ADEPT VIPER 900

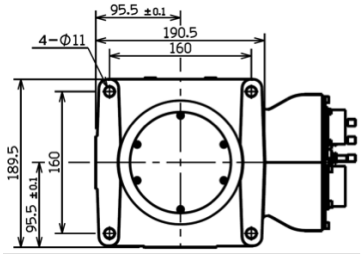
Workspace(mm)



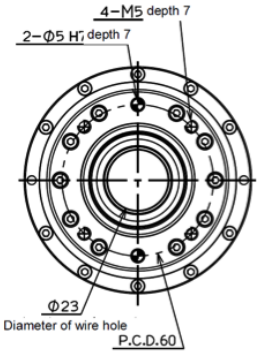
Dimensions: eMB-60N Controller (mm)



FOOTPRINT (mm)



FLANGE DIMENSION (mm)



The Adept Viper 900 system includes the following:

- Adept Viper 900 robot with compact eMB-60N controller and amplifiers
- Front panel with E-Stop
- Cables to connect E-Stop and other peripherals
- Adept ACE software – an integrated, point-and-click development environment for Adept's entire product portfolio of robots and controls
- User documentation

Options and Peripherals

- The SmartVision MX™ is the easiest and most dependable way to add powerful vision guidance and inspection to your robotic packaging applications. The Adept SmartVision MX vision processor is a ruggedized, industrial computer optimized for demanding machine vision applications. It is compatible with a wide range of GigE and USB 3.0 machine vision cameras. AdeptSight software adds powerful vision tools that quickly identify and inspect randomly oriented products and provides their precise location to the robot.
- GigE Power-over-Ethernet and USB 3.0 machine vision cameras
- T20 manual control pendant
- 6 Axis Intelligent Force Sensor

Downloads:

Download CAD files for the Adept Viper 900 Robot from http://www.adept.com

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Specifications subject to change without notice.

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