

Omron Adept Viper s850



The Viper™ s850 robot is part of a high-performance line of 6-axis robots designed for applications such as assembly, material handling, packaging, machine tending, and operations that require fast and precise automation. The Adept Viper s850 6-axis robot is available in standard and Cleanroom versions.

Product Features and Benefits

- Adept ACE™ software to deploy your applications through a user-friendly interface
- High-resolution, absolute encoders to provide high accuracy, superior slow-speed following, and easy calibration
- High-efficiency, low-inertia Harmonic Drives™ and a lightweight arm to deliver maximum acceleration
- 4 kHz servo update rate to improve path following and control
- Diagnostics display enables faster trouble shooting
- Ethernet TCP/IP capability to control the robot through a PC, PLC, or controller
- Complete interchangeability between robots and controllers



The Adept Viper s850 robot comes with the high-performance Adept SmartController™ motion controller, which is based on the Adept SmartServo architecture. It has a small footprint of 329w x 187d x 86h mm.

Specifications

Reach	855 mm
Payload	Rated 2.5 kg Max. 5 kg
Joint Ranges	
Joint 1	± 170°
Joint 2	- 190°, +45°
Joint 3	- 29°, +259°
Joint 4	± 190°
Joint 5	± 120°
Joint 6	± 360°
Inertia Moment (max.)	
Joint 4	0.295 kgm ²
Joint 5	0.295 kgm ²
Joint 6	0.045 kgm ²
Joint Speeds	
Joint 1	250°/sec
Joint 2	250°/sec
Joint 3	250°/sec
Joint 4	375°/sec
Joint 5	375°/sec
Joint 6	600°/sec
Repeatability	
XYZ	± 0.03 mm
Pass-Through Connections (routed from robot base to link four)	
Electrical	10
Pneumatic	6 mm (x1) 4 mm (x6)
Brakes	Joints 2 - 6
Mounting	Floor, Table, & Ceiling
Weight	29 kg
Environmental Requirements	
Ambient Temperature	5 - 40 °C
Humidity Range	5 - 90 % (non-condensing)
Power Requirements for SmartController	
24 VDC : 5 A	
Power Requirements for MotionBlox-60R	
24 VDC : 6 A	
200 - 240 VAC : 10 A, single-phase	
CE Compliant	

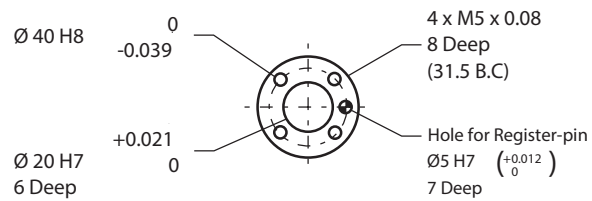
OMRON ADEPT VIPER s850

Dimensions Omron Adept Viper s850

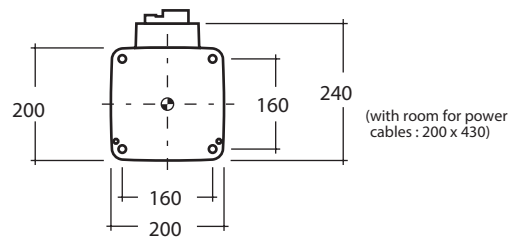


- Working Space:
Radius 855 mm
- Internal Limit:
Radius 166 mm
Based on the Wrist

Dimensions: Flange (mm)



Dimensions: Footprint (mm)



The Omron Adept Viper s850 system includes the following:

- Omron Adept Viper s850 robot
- Omron Adept SmartController motion controller
- MotionBlox-60R servo controller
- Front panel with E-Stop
- Omron Adept ACE software
- User documentation

Options and Peripherals:

- AdeptSight™ vision guidance and inspection system
(requires a PC—Adept recommends using the Adept SmartVision™ EX)
- T2 manual control pendant
- Dual robot configuration option
- Conveyor-tracking option
- sMI6 SmartMotion™ interface
- sDIO I/O expansion (32 digital input and 32 digital output channels)
- Cleanroom ISO4 (class 10) option
- Brake Box

Downloads:

Download CAD files for the Adept Viper s850 robot from
<http://www.omron247.com>



Omron Adept Technologies, Inc.

Tel: 925-245-3400 Email: info@adept.com

omron247.com

Specifications subject to change without notice.

©2016 Omron. ALL RIGHTS RESERVED. Pub Number R85I-E-01

09366-014 Rev. D