

# Adept Viper ePLC850



Allen-Bradley PLC



Siemens PLC

The Adept Viper™ ePLC850 robot is a compact, high-performance, 6-axis robot. Adept's ePLC robots natively run Adept ePLC Connect™ software, which allows them to communicate directly with an existing Programmable Logic Controller (PLC). This ePLC configuration allows users to install, program, operate and support our high-performance robots using the familiar interface of their existing PLC. Adept ePLC robots are designed to provide significant cost and time savings for users with new or existing PLC automation systems.

## Product Benefits

- Lower system cost due to controller-less operation
- Rapid deployment using familiar ladder logic programming languages of existing PLC (IEC 61131-3)
- Maximum facility utilization with the most compact system footprint in the industry
- Increased facility safety and lower cost with minimal power and signal cabling requirements

## Product Features

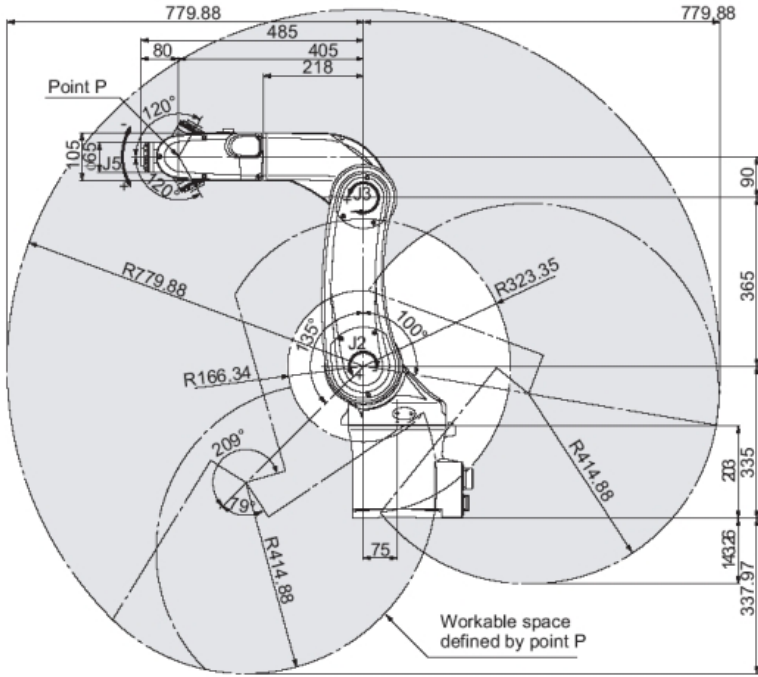
- Compatible with 1756 ControlLogix® or CompactLogix™ (by Allen-Bradley) and S7-300 SIMATIC (by Siemens) PLCs
- High-resolution, absolute encoders to provide high accuracy, superior slow-speed following, and easy calibration
- High-efficiency, low-inertia Harmonic Drives™ and a lightweight arm to deliver maximum acceleration
- 8 kHz servo update rate to improve path following and control
- Integrated 10/100 Base-T Ethernet for EtherNet/IP™ communication

## Specifications

|                                        |                              |
|----------------------------------------|------------------------------|
| Reach                                  | 855 mm                       |
| Payload                                |                              |
| Rated                                  | 2.5 kg                       |
| Max.                                   | 5 kg                         |
| Adept Cycle (in mm 25/305/25)          |                              |
| Burst Mode                             | 0.69 sec                     |
| Sustained (20°C)                       | 0.80 sec                     |
| 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 <sup>2</sup>       |
| Joint 5                                | 0.295 kgm <sup>2</sup>       |
| Joint 6                                | 0.045 kgm <sup>2</sup>       |
| 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               |                              |
| Internal Integrated Solenoids          |                              |
| (routed from robot base to link four)  |                              |
| Electrical                             | 10                           |
| Pneumatic                              | 6 mm (x1)<br>4 mm (x6)       |
| Digital I/O Channels                   |                              |
| eMB-60R:                               | 12 inputs, 8 outputs         |
| Brakes                                 | Joints 2 - 6                 |
| Mounting                               | Floor, Table, & Ceiling      |
| Weight                                 | 29 kg                        |
| Environmental Requirements             |                              |
| Ambient Temperature                    | 5 - 40 °C                    |
| Humidity Range                         | 5 - 90 %<br>(non-condensing) |
| Power Requirements for eMotionBlox-60R |                              |
| 24 VDC                                 | : 6 A                        |
| 200 - 240 VAC                          | : 10 A, single-phase         |
| CE Compliant                           |                              |

# ADEPT VIPER ePLC850

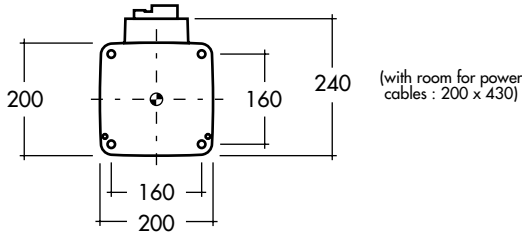
## Dimensions: Adept Viper ePLC850 (mm)



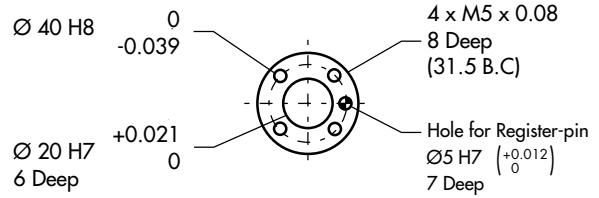
## Dimensions: eMotionBlox-60R (mm)



## Dimensions: Footprint (mm)



## Dimensions: Flange (mm)



## Optional T20 Manual Control Pendant:



## Downloads:

Download CAD files for the Adept Viper ePLC850 robot from <http://www.adept.com/support/downloads/file-search>

## The Adept Viper ePLC850 system includes the following:

- Adept Viper ePLC850 robot
- eMotionBlox-60R servo controller and amplifier
- Front panel with E-Stop
- Adept ACET™ software
- User documentation
- Cables to connect E-Stop and other peripherals

## Options and Peripherals:

- AdeptSight™ vision guidance and inspection system
- T20 manual control pendant
- Cleanroom ISO4 (class 10) option
- Brake box



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