

Articulated Robots

Viper 850

Articulated robot for machining, assembly, and material handling

- Ethernet capability to control the robot through the familiar programming language (IEC 61131-3) of Machine Automation Controller NJ/NX Series
- Diagnostics display enables faster trouble shooting
- 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
- Reach 855 mm
- Maximum payload 5 kg
- Weight 29 kg
- Protection IP40 *1
- Cleanroom class 10 option



Specifications

Product name		Viper
	Size	850
Model		1720□-38000
Mounting		Table/Floor/Inverted
Number of axes		6
Reach		855 mm
Maximum Payload		5 kg
Repeatability	XYZ	±0.03 mm
Joint Range	Joint 1	±170°
	Joint 2	-190°, +45°
	Joint 3	-29°, +256°
	Joint 4	±190°
	Joint 5	±120°
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°/s
	Joint 2	250°/s
	Joint 3	250°/s
	Joint 4	375°/s
	Joint 5	375°/s
	Joint 6	600°/s

Product name		Viper
	Size	850
Power Requirements		24VDC: 6A 200 to 240VAC: 10A, single-phase
Protection		IP40 *1
Environment Requirements	Ambient Temperature	5 to 40°C
	Humidity Range	5 to 90% (non-condensing)
Weight		29 kg
cULus Compliant		---
Basic configuration	Controller	eMotionBlox-60R
	On-board I/O (Input/Output)	12/8
	Conveyor tracking input	2
	RS-232C serial communications port	1
	Programming environment	ACE, PackXpert, PLC
	ACE Sight	Yes
	ePLC Connect	Yes
Connectable controller *2		eMotionBlox-60R, SmartController EX, NJ/NX Series *3

*1. IP54: main body, IP65: robot joints (J4, J5, J6)

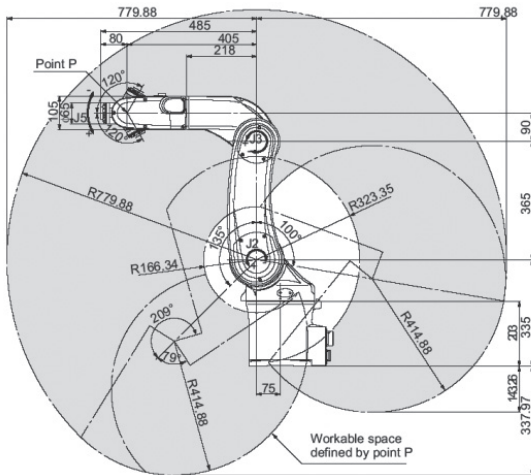
*2. Choose a controller to suit your application.

*3. The robot version 2.3.C is required to connect with the NX/NJ Series.

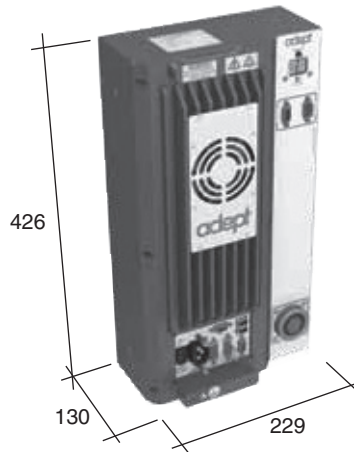
Dimensions

(Unit: mm)

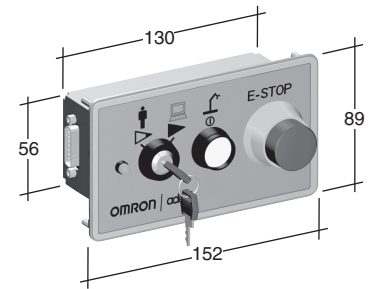
Viper 850



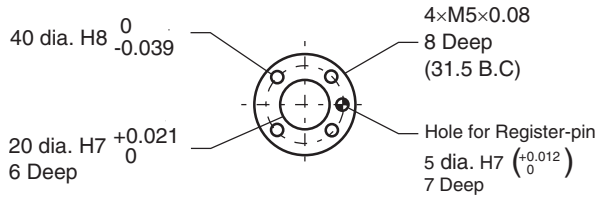
eMotion Blox -60R



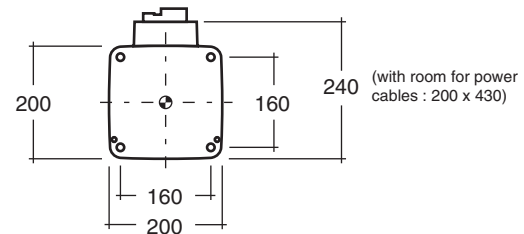
Front panel



Flange



Footprint



Robot Parts Code and Bundled Accessories

Type	Viper	Viper Add-On
Viper 850	17201-38000	17203-38000
Overview	Robot + eMotionBlox60N amplifier with fully integrated controls	Robot + eMotionBlox60N + required connection cables
Purpose	Typical for use in single robot system	Typically added to systems with an existing SmartController EX to create multi-robot systems
Bundled Accessories	<ul style="list-style-type: none"> XSYS cable with jumpers, 2m/6ft (13323-000) Front panel kit (90356-10358) 	<ul style="list-style-type: none"> XSYS cable with jumpers, 2m/6ft (13323-000) XSYS cable, 5m/15 ft (11585-000) DB9 splitter (00411-000) 1394 latch cable, 5m/15 ft, 13632-045) eV+ license to connect to controller (14529-103)

Note: OMRON also provides other types of model. Ask your OMRON sales representative for details.