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/NY 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 36 kg

Specifications

Product name		Viper		
	Size	850		
	Cleanroom/IP	Standard	Cleanroom	IP54/65
Model		1720□-38000	1720□-38020	1720□-38010
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°		
	Joint 6	±360°		
Inetia 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		

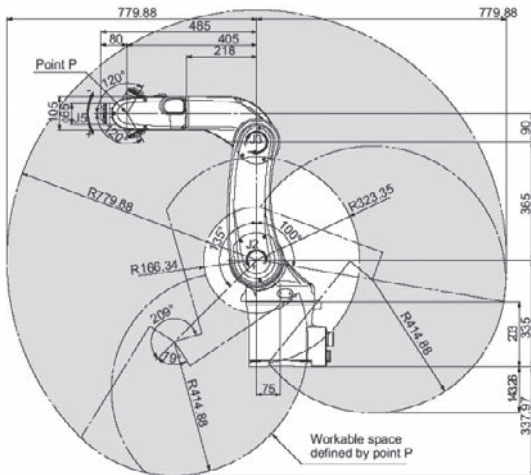| Product name		Viper		
	Size	850		
	Cleanroom/IP	Standard	Cleanroom	IP54/65
Power Requirements		24VDC: 6A 200 to 240VAC: 10A, single-phase		
Protection	Base	IP40	IP40	IP54
	Robot Joints (J4, J5, J6)	IP40	IP40	IP65
Clean Class		---	Class10	---
Environment Requirements	Ambient Temperature	5 to 40°C		
	Humidity Range	5 to 90% (non-condensing)		
Weight		36 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, ePLC		
	ACE Sight	Yes		
	ePLC Connect	Yes		
	ePLC I/O	Yes		
Connectable controller *1		eMotionBlox-60R, SmartController EX, NJ/NX/NY Series *2		

*1. Choose a controller to suit your application.
*2. The robot version 2.3.C or later is required to connect with the NJ/NX/NY Series.
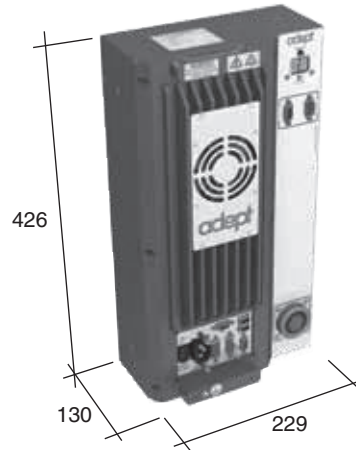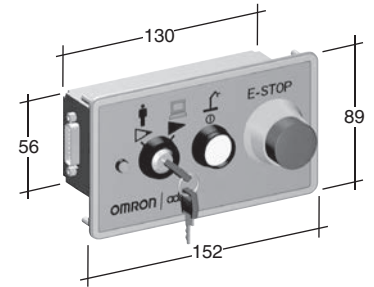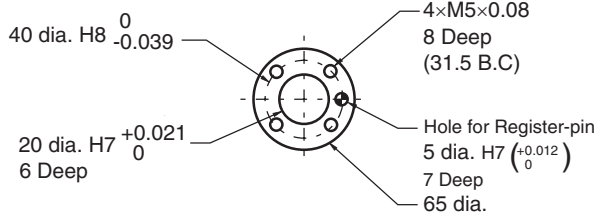
Dimensions

Viper 850

eMotion Blox -60R

Front panel

Flange

40 dia. H8 $^{0}_{-0.039}$

20 dia. H7 $^{+0.021}_{0}$
6 Deep

4×M5×0.08
8 Deep
(31.5 B.C)

Hole for Register-pin
5 dia. H7 $\left(^{+0.012}_{0}\right)$
7 Deep
65 dia.

Footprint

(with room for power cables : 200 x 430)
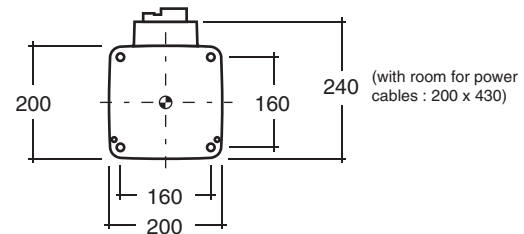
Robot Parts Code and Bundled Accessories

Type	Viper			Viper Add-On		
Cleanroom/IP	Standard	Cleanroom	IP54/65	Standard	Cleanroom	IP54/65
Viper 850	17201-38000	17201-38020	17201-38010	17203-38000	17203-38020	17203-38010
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	• XSYS cable with jumpers, 1.8m/6ft (13323-000) • Front panel kit (90356-10358) • Arm power/signal cable, 4m (05020-000)			• XSYS cable with jumpers, 1.8m/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)		