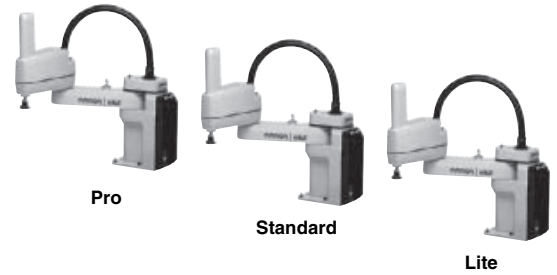


eCobra 800 Lite/Standard/Pro

Large SCARA robot for precision 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
- Reach is extended to 800 mm without compromising repeatability
- High payload for screw-driving tools
- The amplifier and controller built into the robot reduces the number of cables
- Choose the right robot for you application from three different types
- Reach 800 mm
- Maximum payload 5.5 kg
- Weight 43 kg
- Protection IP20 (IP65 option)
- Cleanroom class 10 option

Specifications

| Product name | | eCobra | | |
|------------------------------|------------------------------------|---|-------------------------------------|-------------|
| | | 800 | | |
| Size | | 800 Lite | 800 Standard | 800 Pro |
| Type | | | | |
| Model | | 17000-18000 | 1710□-18000 | 1720□-18000 |
| Number of axes | | 4 | 4 | 4 |
| Mounting | | table/floor | | |
| Reach | | 800 mm | | |
| Maximum Payload | | 5.5 kg | | |
| Repeatability | XY | ±0.017 mm | | |
| | Z | ±0.003 mm | | |
| | Theta | ±0.019° | | |
| Joint Range | Joint 1 | ±105° | | |
| | Joint 2 | ±157.5° | | |
| | Joint 3 | 210 mm | | |
| | Joint 4 | ±360° | | |
| Inertia Moment (Max.) | Joint 4 | 450 kg-cm ² | | |
| Joint Speeds | Joint 1 | 386°/s | | |
| | Joint 2 | 720°/s | | |
| | Joint 3 | 1100 mm/s | | |
| | Joint 4 | 1200°/s | | |
| Cycle times (Payload 2.0 kg) | Burst | 0.73 s *1 | 0.62 s *1 | 0.44 s *1 |
| | Sustained | 0.73 s *1 | 0.62 s *1 | 0.54 s *1 |
| Power Requirements | | 24 VDC: 6 A 200 to 240 VAC: 10 A, single-phase | | |
| Protection | | IP20 (IP65 option) | | |
| Environment Requirements | Ambient Temperature | 5 to 40°C | | |
| | Humidity Range | 5 to 90% (non-condensing) | | |
| Weight | | 43 kg | | |
| Basic configuration | Controller | eAIB | | |
| | On-board I/O (Input/Output) | 12/8, 4 Solenoid Output | | |
| | Conveyor tracking input | No | | 2 |
| | RS-232C serial communications port | No | 1 | |
| | Programming environment | ACE | ACE, PackXpert, PLC | |
| | ACE Sight | No *2 | Yes | |
| | ePLC Connect | No | Yes | |
| ePLC I/O | | No | Yes | |
| Connectable controller *3 | | No | SmartController EX, NJ/NX Series *4 | |

*1. Adept cycle, in mm 25/305/25 (seconds, at 20°C ambient)

*2. The SmartVision MX cannot be used with the Lite type.

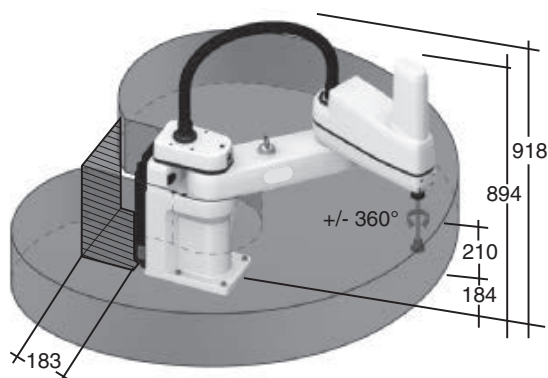
*3. Choose a controller to suit your application.

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

Dimensions

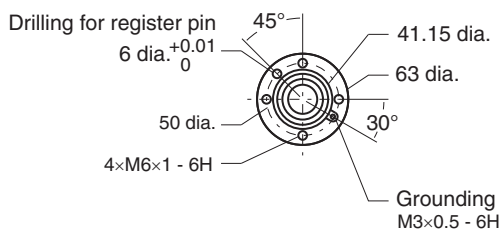
(Unit: mm)

eCobra 800

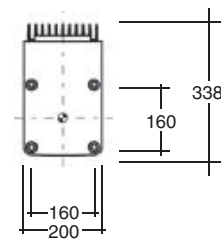


- Work Envelope: Radius 800 mm
Inner Limit: Radius 164 mm
Height: 210 mm
- Required clearance to open eAIB Chassis

Flange



Footprint



Front panel



Robot Parts Code and Bundled Accessories

| Type | eCobra | eCobra Add-On |
|---------------------|--|---|
| eCobra 800 Lite | 17000-18000 | --- |
| eCobra 800 Standard | 17101-18000 | 17103-18000 |
| eCobra 800 Pro | 17201-18000 | 17203-18000 |
| Overview | Robot + eAIB with fully integrated controls | Robot + eAIB with 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.

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