

Adept Cobra™ PLC Robot

ROBOT HARDWARE

The Adept Cobra PLC Robot is a 4-axis SCARA robot available in two sizes, the Adept Cobra PLC600 Robot and the Adept Cobra PLC800 Robot.

PLC Server Hardware

The Adept PLC Server provides direct connectivity to the PLC.

PLC Compatibility

Allen-Bradley DF1 Protocol

The Adept Cobra PLC robot is directly compatible with the Allen-Bradley DF1 protocol.

SOFTWARE

Real-Time Operating System

The Adept Cobra PLC robot includes a real-time operating system to ensure reliability and a high-level of safety.

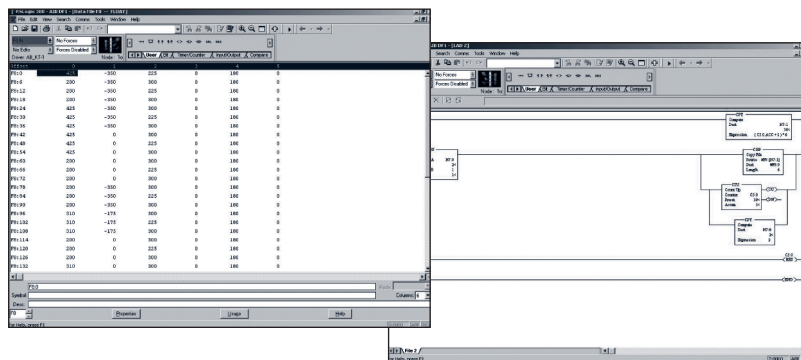
PLC Server Software

The software provides seamless connectivity with the customer-supplied PLC. The PLC server is pre-configured and ready for operation.

Key Software Features

- Automatic startup
- Straight-line motion
- Programmable speed and acceleration

The Adept Cobra Programmable Logic Controller (PLC) Robot is a high-performance 4-axis SCARA robot with a PLC Server. All system configuration, initialization and programming is performed directly from the customer supplied PLC.



Easy to install, program and operate!

All application programs and locations are defined and reside within the user's PLC. The PLC server retrieves this data and commands the robot to move. It's as simple as that. Customers new to robotics can now easily install, program, operate and support high-performance robots.

Low purchase price and low support costs!

The familiar environment of the PLC, combined with its attractive price, makes this one of the most cost-effective robots in the industry.

Program directly from PLC in PLCs native language

Functionality provided includes:

- Initialization
- Programming
- Jog control
- Tool I/O control
- Status functions

Target Applications

- Pick-and-Place
 - Multiple pick-and-place locations supported
 - Flexible drop-off or reject locations
- Part Transfer
- Screwdriving

Adept Cobra™ PLC Robot

Adept Cobra PLC Mechanical Specifications

	PLC 600 Robot	PLC 800 Robot
Reach	600 mm (23.6 in)	800 mm (31.5 in)
Payload		
Rated	2.0 kg (4.4 lb)	2.0 kg (4.4 lb)
Max	5.5 kg (12.1 lb)	5.5 kg (12.1 lb)
Max Jt 4 Inertia	450 kg-cm ² (150 lb-in ²)	450 kg-cm ² (150 lb-in ²)
Joint Range of Motion		
Joint 1	±105°	±105°
Joint 2	±150°	±157.5°
Joint 3	210 mm (8.3 in)	200 mm (7.87 in)
Joint 4	±360°	±360°
Repeatability		
XY	±0.017 (±0.0008 in)	±0.017 (±0.0008 in)
Z	±0.003 mm (±0.0004 in)	±0.003 mm (±0.0004 in)
Theta	±0.019°	±0.019°
Joint Speed (maximum)		
Joint 1	±360°/sec	±360°/sec
Joint 2	±672°/sec	±672°/sec
Joint 3	1100 mm/sec (43 in/sec)	1100 mm/sec (43 in/sec)
Joint 4	1200°/sec	1200°/sec
Encoder type		Absolute
Robot Brakes:		
Joints 1, 2 and 4		Dynamic
Joint 3		Electric

PLC Server Specifications

Safety

- Dual Channel E-Stop connectivity
- Meets CE Category-1 safety requirements
- Front Panel (included) has E-Stop switch

Communications DF1 via RS-232

Environmental and Electrical Specifications

PLC Server Power (customer supplied)	24VDC ±10%, 5A
Robot Power (customer supplied)	220 VAC single phase (10A) 24 VDC (5A)
Temperature	5°C - 40°C (41°F - 104°F)
Relative Humidity	5 to 90%, non-condensing

Rockwell Encompass Partner

Adept PLC Server robotic interface is an Encompass referenced product.

Downloads

Download CAD files from www.adept.com using the following download ID's:

Adept Cobra PLC600	500007
Adept Cobra PLC800	500008

For More Information

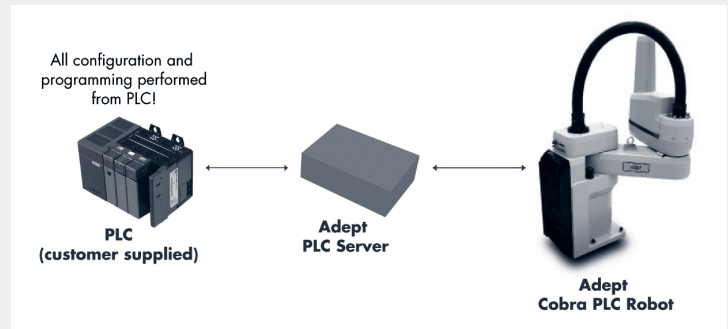
Call (763) 682-9548 or (800) 226-6385.

The Adept Cobra PLC robot is available by ordering the following part number:

- Adept Cobra PLC600 Robot 03254-000
- Adept Cobra PLC800 Robot 03255-000

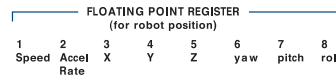


CUSTOMER SUPPLIED PLC



It's as simple as 1, 2, 3!

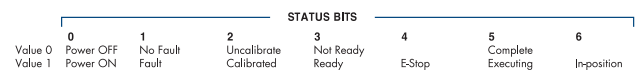
1. Initialize locations



2. Command the robot to move



3. Check status



Not all functions are shown. Actual programming may vary. Contact Adept Applications Support for details.



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Specifications subject to change without notice.

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