The Omron Adept SmartController® EX is an ultra-compact, high-performance, distributed robot motion controller capable of controlling an entire production line including up to 15 robots and third-party peripherals. The controller’s distributed architecture, embedded software, integrated belt tracking, and high-speed communications allows users to integrate their automation systems with the user-friendly interface of the ACE PC-based software. Designed for use with Adept Cobra s-series SCARA robots, Viper six-axis robots, Quattro parallel robots and Python Linear Modules, the controller features Gigabit Ethernet, a high-speed processor and new software, called Adept eV+. Integration with the Adept SmartVision delivers seamless control of your vision systems, belts and robots. The Adept SmartController EX is smart control delivered.

**Specifications**

- **Dimensions (mm)**: 329 x 187 x 86
- **Weight**: 2.6 kg
- **Power Requirements**:
  - 24 VDC (± 10%), 120 W (5 A)
- **Environmental Requirements**:
  - Ambient Temperature: 5 - 40 °C
  - Humidity Range: 5 - 90% (non-condensing)
- **Mounting Options**:
  - Panel mount (kit included)
  - Rack mount
  - Stack mount
  - Desktop
- **Memory**:
  - 2GB SD Card
  - 128MB DDRAM
- **Conveyor Belt Tracking Support (4 encoder inputs)** (requires V+ extensions)
- **Digital I/O**
  - Inputs: 12 optically isolated (fast input)
  - Outputs: 8 optically isolated
- **Communication Interfaces**
  - RS-232 serial port (115kbps)
  - RS-422/485 serial port
  - Gigabit Ethernet
  - DeviceNet
  - SmartServo interface (3x)
- **Software**
  - eV+ real-time multi-tasking operating system and programming language
  - Adept ACE ™
  - TCP/IP Interface
- **Adept Robot Support**
  - Adept Cobra ™ s-series robots
  - Adept Viper ™ robots
  - Adept Quattro ™ robots
  - Adept Python ™ linear modules
- **CE and UL Compliant**

**Product Features and Benefits**

- EPLC Connect Option Enables User to control robots from Allen Bradley’s MicroLogix and ControlLogix and from Siemens’ Simatic Product Lines
- Controls up to 15 Robots with a Single Controller
- Ultra-compact Form Factor for High Footprint Efficiency
- Built on IEEE-1394 Distributed Control Architecture for Plug-in Scalability
- Integration with Adept ACE to Control Complex Mechanisms Through User-Friendly Interface
- eV+ embedded real-time operating system to deliver high performance
- Optional T20 Pendant provides a teaching interface in an ergonomic and rugged package
OMRON ADEPT SMART CONTROLLER EX

**Dimensions: Adept SmartController EX (mm)**

**Dimensions: Front Panel (mm)**

**Optional T20 Manual Control Pendant:**

The Adept T20 manual control pendant provides an ergonomic and durable package with which users can manually teach the robot system. All gripping and holding positions enable comfortable and fatigue-free operation. Select features include:

- Enable/disable power
- Jog the robot in different modes (joint, world, tool, frame)
- Teach locations
- Display robot position, digital I/O, and system status
- E-Stop button and 3-position enable switch
- Colorful and high resolution User Interface
- Display IP address of controller

**Options:**

- Adept SmartVision EX machine vision processor (optimized to run Adept ACE)
- AdeptSight™ vision guidance and inspection software
- ACE PackXpert™ application software
- Conveyor-tracking option
- T20 manual control pendant
- sMI6 SmartMotion interface for additional encoder belt inputs
- sDIO I/O expansion (32 digital input and 32 digital output channels)

**Downloads:**

CAD files available at http://www.omron247.com

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