SEPARATELY EXCITED MOTOR SPEED CONTROLLER

MODEL 1274

DESCRIPTION

Curtis PMC Model 1274 Separately Excited Motor Speed Controllers integrate all of the functions necessary to provide fully featured electric light on-road vehicles or similar vehicles requiring speed limiting and multiple profile capabilities.

Application

The Curtis PMC Model 1274 is ideally suited for Light On-Road Vehicles such as neighborhood electric vehicles, two-passenger cars and similar modes of transportation.

Features

Rugged, Powerful and Flexible

- Provides the rugged reliability of SepEx® regenerative traction motor control with the safety features required for Light-On-Road vehicle operation.
- The rugged IP64 housing and packaging can withstand the extreme environments associated with on road use.
- Easy integration with many three-wire resistive (5KΩ potentiometer) or 0 - 5 Volt electronic throttles (available from Curtis) allows for flexibility in OEM vehicle design.
- In high volume OEM applications, custom versions of model 1274 can be made available for a speed sensorless operation in which the controller limits top vehicle speed based on a speed estimating algorithm.

Fully Programmable

- FLASH memory incorporated in model 1274 design allows for quick and easy updates by the OEM.
- Fully compatible with THE 1311 Curtis handheld or P.C. based programmers for testing, diagnostics and parameter adjustments.
- Acceleration and deceleration profiles can be defined for optimal vehicle response in multiple modes.
- Vehicle top speed is programmable.
- Field maps, battery current limits and armature current limits are programmable to assure optimal motor performance.

Safety Features

- The Model 1274 includes the safety features required in the operation of a light on road vehicle including:
  - High Pedal Disable
  - Brake/Drive Interlock
- Self monitoring functions identify, respond to and report faults via the Fault Status LED, fault drive output and serial port.
- Self protecting functions include linear over-temperature cutback , over-voltage and under-voltage protection.

Features...continued

Meets U.S. and International Regulations

- The Curtis Model 1274 Controller is designed to meet:
  EN 50081-2:1993 for EMI emissions
  EN 50082-2:1995 for EMC immunity
  EN 1175-1:1998
  EN 12895:2000
  EN ISO14982:1998
  UL 583 Recognized component
  UL 94V-0 for flammability resistance (enclosure only)
  IP64 rated for dust and splash protection.

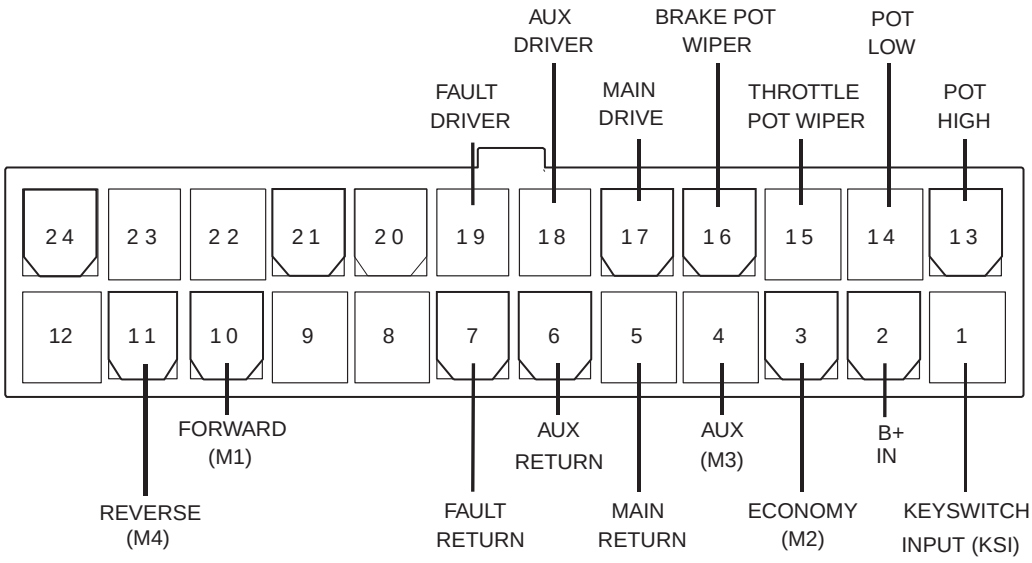
Model Chart

Model Number	Voltage Rating (volts)	Current Rating (amps) 2 minutes	Control Wiring (volts) †	Speed Sensor Required*
1274-5401	48	400	48	Yes
1274-5402	48	400	12	Yes
1274-7401	72	400	72	Yes
1274-7402	72	400	12	Yes

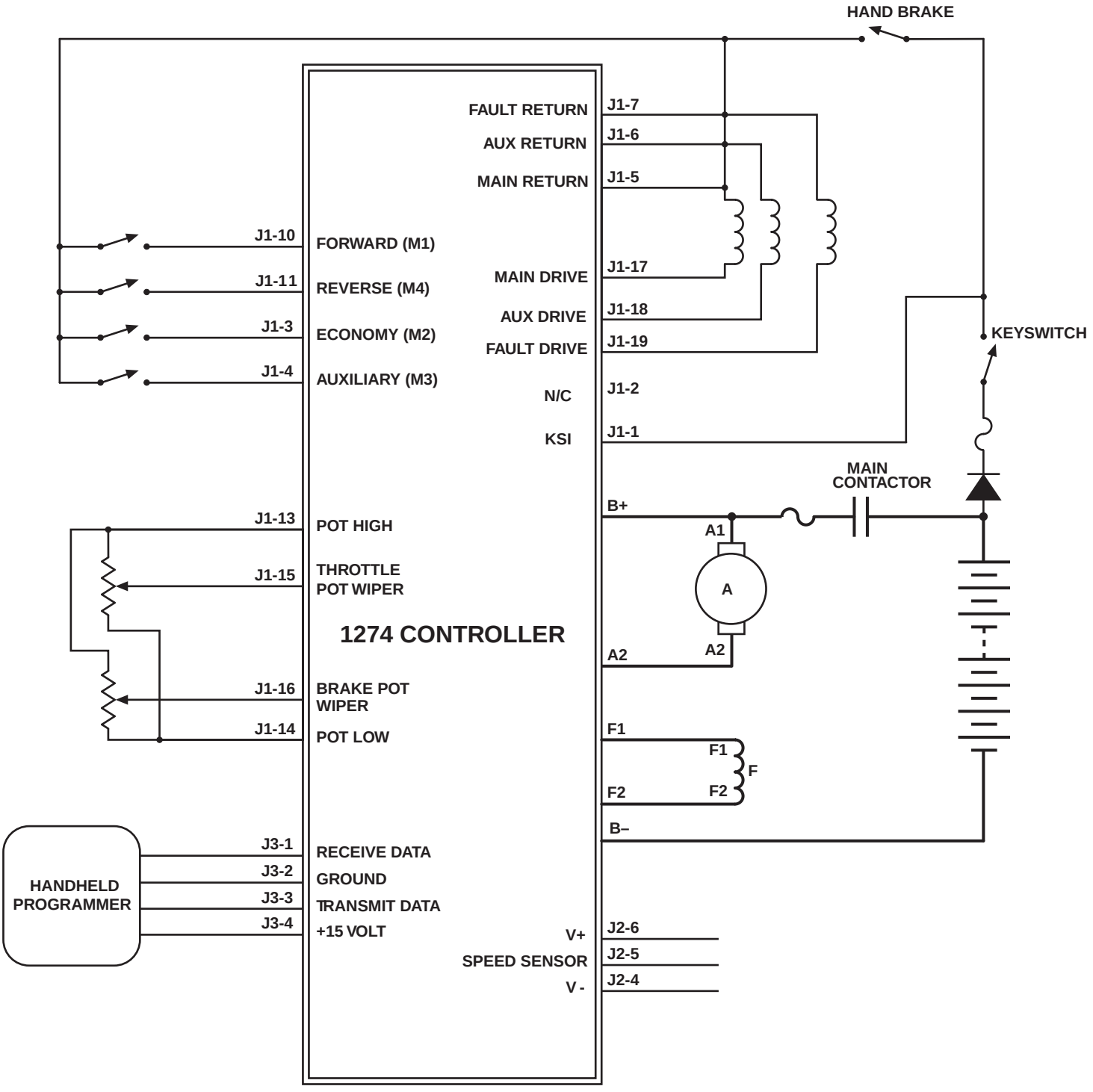
*Speed sensor is required for closed loop speed control

† DC-DC Converter required for 12 volt output. Curtis Model 1400E is preferable.

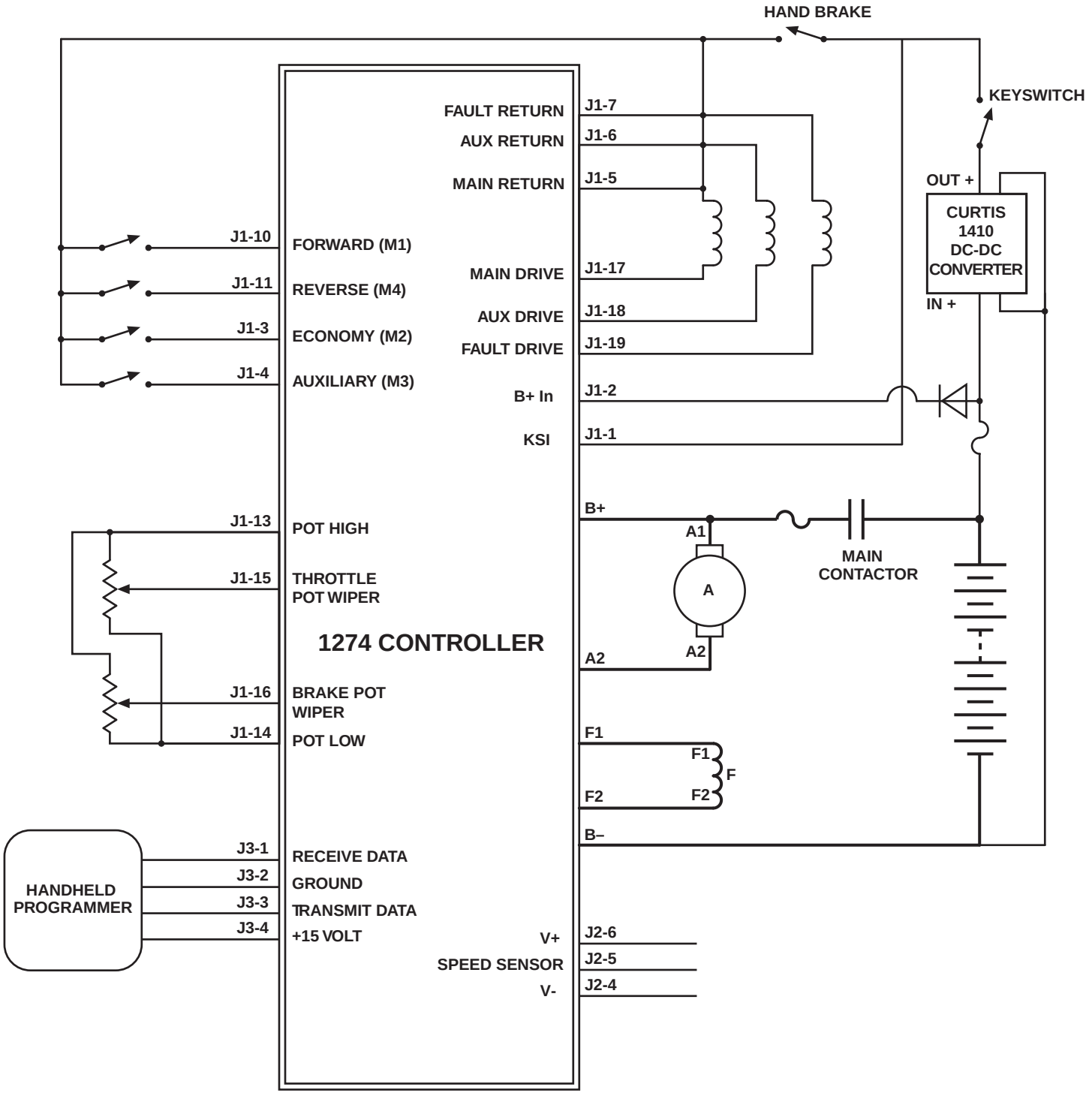
Connector



1274 Standard Control Wiring Diagram



1274 with 12V Control Wiring Diagram



Dimensions: mm (inches)