



CURTIS

CAN I/O Module



Solid State Contactor Module

Model 1355



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The Curtis Model 1355 is a compact and affordable solid-state alternative to electro-mechanical contactor panels. It offers fully programmable soft-start and current-limiting control of up to 5 brushed DC permanent magnet or series wound motors, via CANbus commands or direct digital inputs.

Typical applications include Sweeper-Scrubber floor care machines, or any other 24–36VDC application requiring control of multiple loads up to 100A each

FEATURES

- ▶ Microprocessor based design substantially reduces installation labor and physical space requirements.
- ▶ Five drivers, M1– M5, for motor loads, rated for 100A peak current.
- ▶ M1– M5 motor drivers offer soft start and current limiting capability.
- ▶ Optional three, 10A full bridge actuator drivers, controlled via CANopen control commands.
- ▶ One 3A driver output, for a main (line) contactor.
- ▶ Optional six digital inputs allow stand-alone control of five motor loads.
- ▶ H-bridge mode allows bidirectional operation of a single motor load.
- ▶ Ability to connect outputs in parallel to drive a single larger motor load.
- ▶ Ability to connect multiple 1355s throughout a vehicle control system.
- ▶ Accurate motor, actuator current measurements and full diagnostics reported via CANbus.
- ▶ CANopen interface allows interconnection to a wide range of products, including the Curtis line of AC motor speed controllers and Curtis vehicle system controllers.
- ▶ Heavy duty threaded M6 bus bars for battery and M5 for motor connectors eliminate reliability issues often found with push-on power connectors.
- ▶ All logic connections via reliable, IP65 sealed 14-pin AmpSeal connector.
- ▶ Robust IP65 sealed enclosure provides excellent chemical resistance and protection from harsh environments.
- ▶ Designed to withstand high levels of bump, shock and vibration.
- ▶ Programmable 24 or 36VDC nominal supply.
- ▶ Externally viewable power/status LEDs.
- ▶ Serial communication port for Curtis 1314/1313 programming tools.



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SPECIFICATIONS

Meets or complies with relevant US and International Regulations:

EMC: Designed to the requirements of EN12895.

Safety: Designed to the requirements of:

EN1175-1:1998+A1:2010

EN (ISO) 13849-1

IP65 Rated per IEC 60529.

UL583 recognition pending.

Regulatory compliance of the complete vehicle system with the controller installed is the responsibility of the vehicle OEM.

MODEL CHART

Model Number	Voltage (V)	Motor Outputs M1 – M5		Actuator Outputs	Digital Inputs
		Peak Current, 10 Sec. (A)	S2-60 Min (A)		
1355-4001	24–36	5 x 100	5 x 40	3X 10A Peak 5A Cont.	N/A
1355-4101	24–36	5 x 100	5 x 40	N/A	6

FUNCTIONAL SAFETY DATA

Model	Safety Function	PL	Designated Architecture	MTTFd (Years)	DC%
Model 1355-X00Y (With Actuator Output)	Uncommanded Powered Movement	b	2	>20	>75
	Motor Braking Torque	b	2	17	>73
Model 1355-X10Y (Without Actuator Output)	Uncommanded Powered Movement	c	2	>27	>69
	Motor Braking Torque	b	2	>21	>68

SYSTEM ACCESSORIES



The Curtis Model 1232E provides advanced control of AC induction motors performing on-vehicle traction drive or hydraulic pump duties and offers the highest levels of functional safety.



The Curtis Model 1229 is a sealed, heavy-duty permanent magnet motor speed controller intended for demanding traction applications in hostile environments.



The Curtis Model 1313 Handheld Programmer is ideal for setting parameters and performing diagnostic functions.

Contact Curtis to obtain the VCL Vehicle Control Language compiler and development tools.

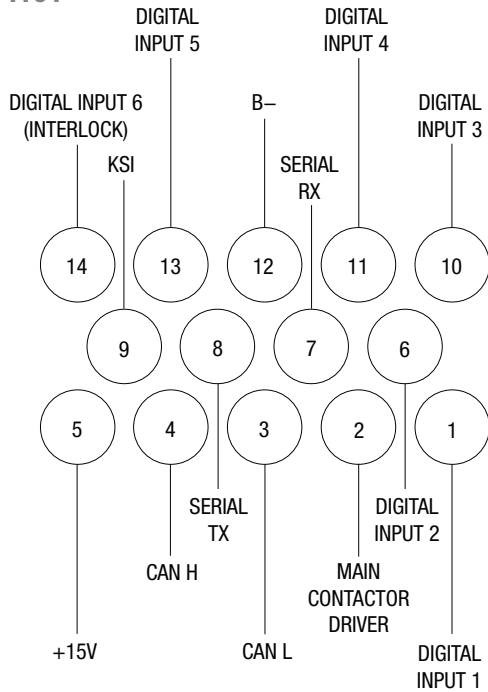
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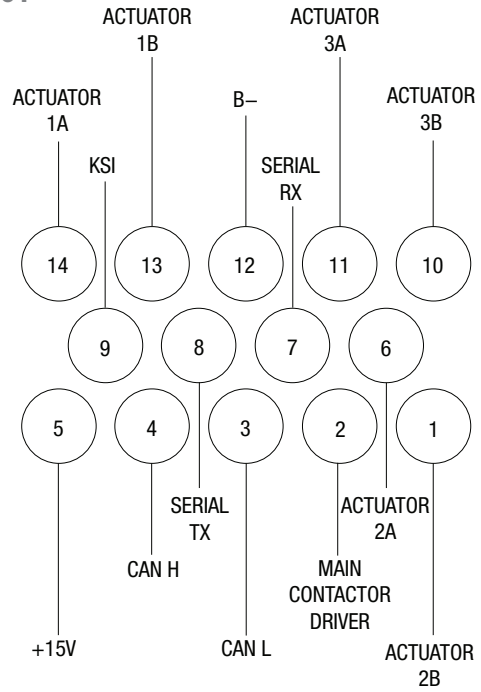


CONNECTOR WIRING

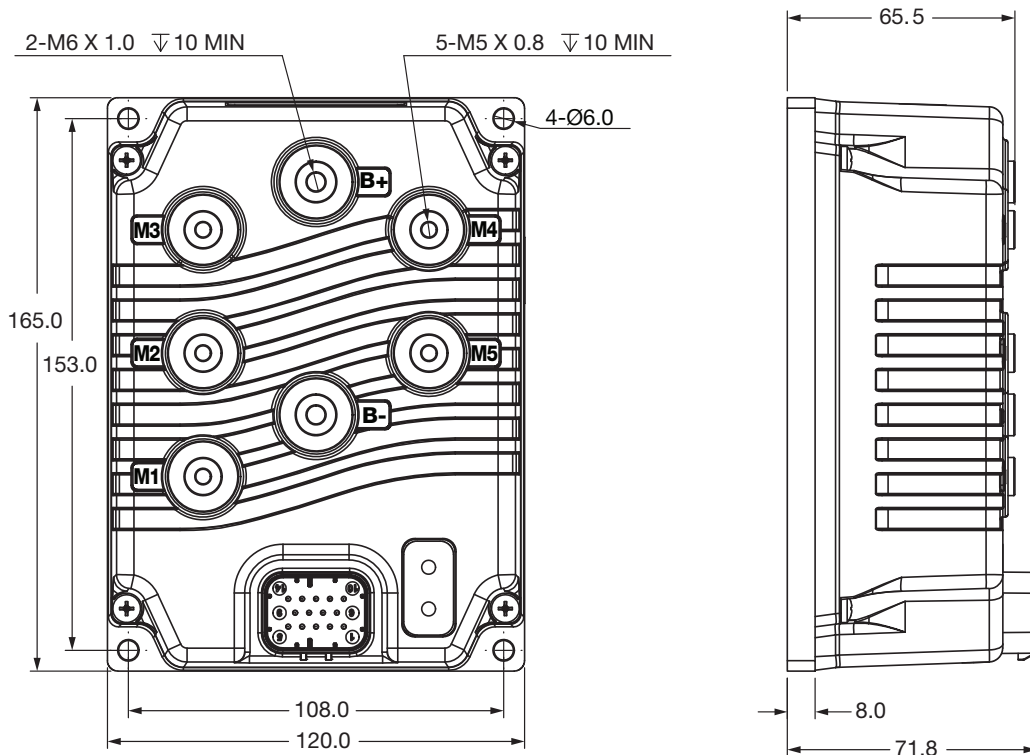
1355-4101



1355-4001



DIMENSIONS mm



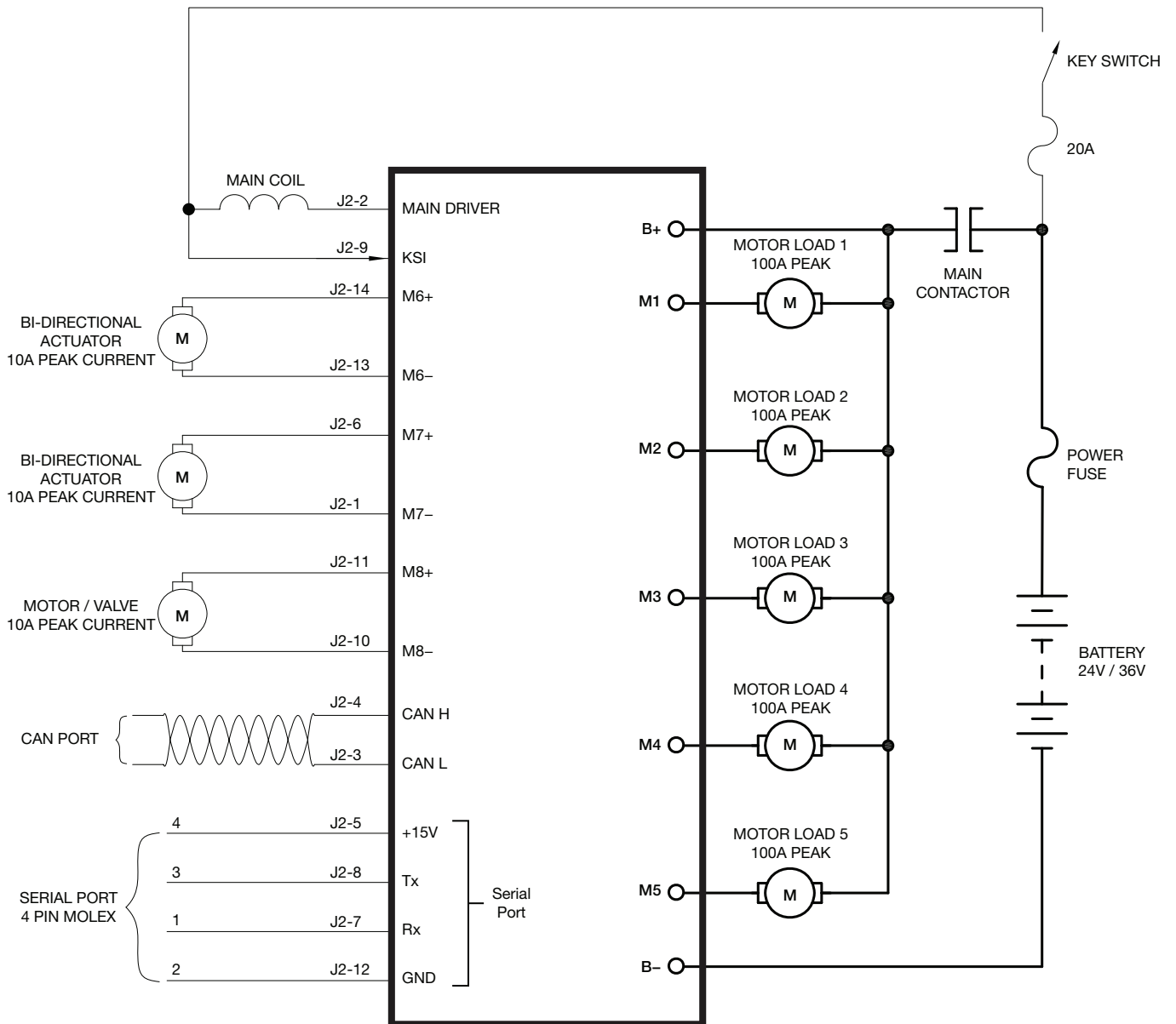
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TYPICAL WIRING

1355-4001



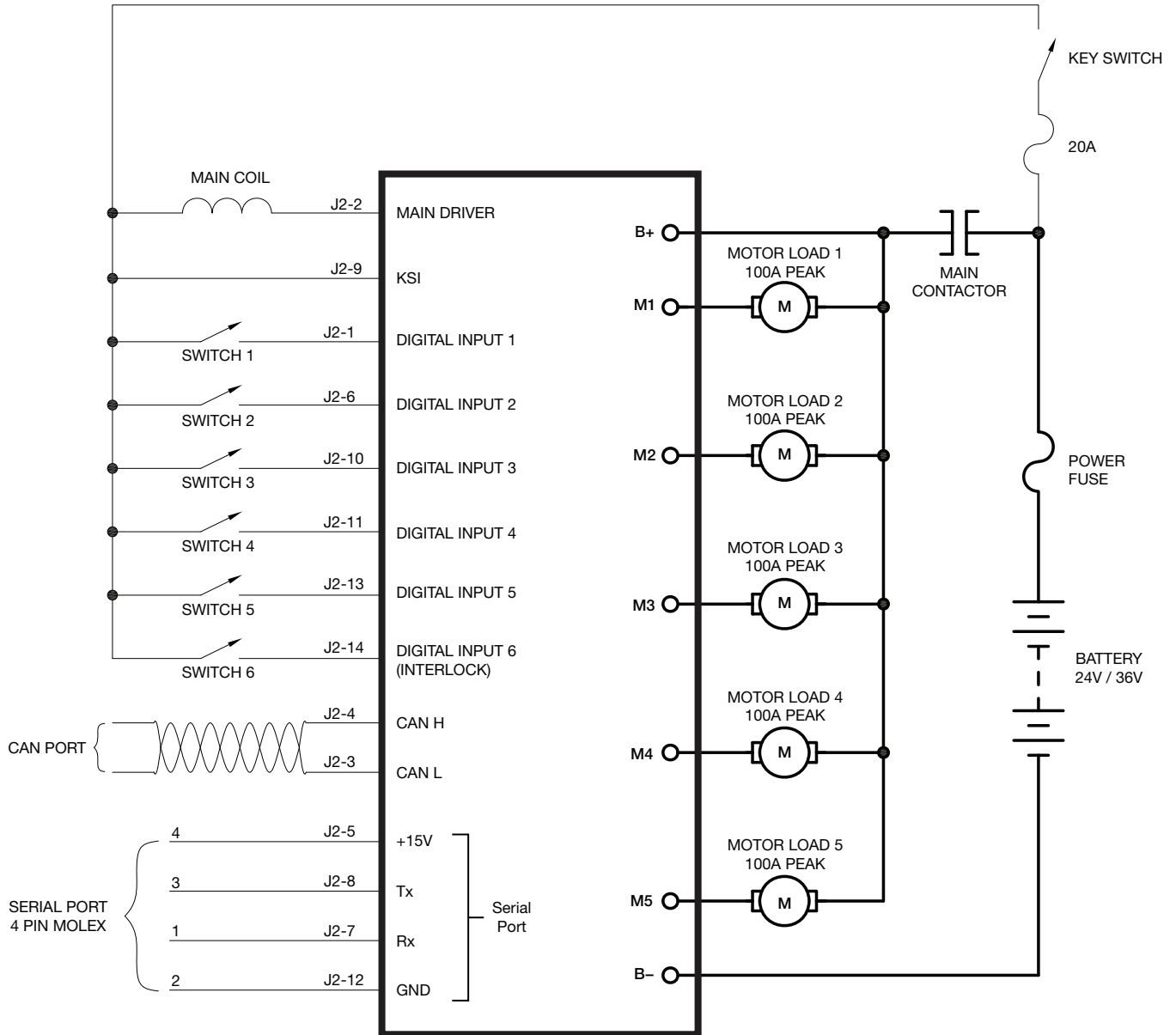
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TYPICAL WIRING

1355-4101



WARRANTY Two year limited warranty from time of delivery.

The Curtis Difference 
You feel it when you drive it



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Specifications subject to change without notice.

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