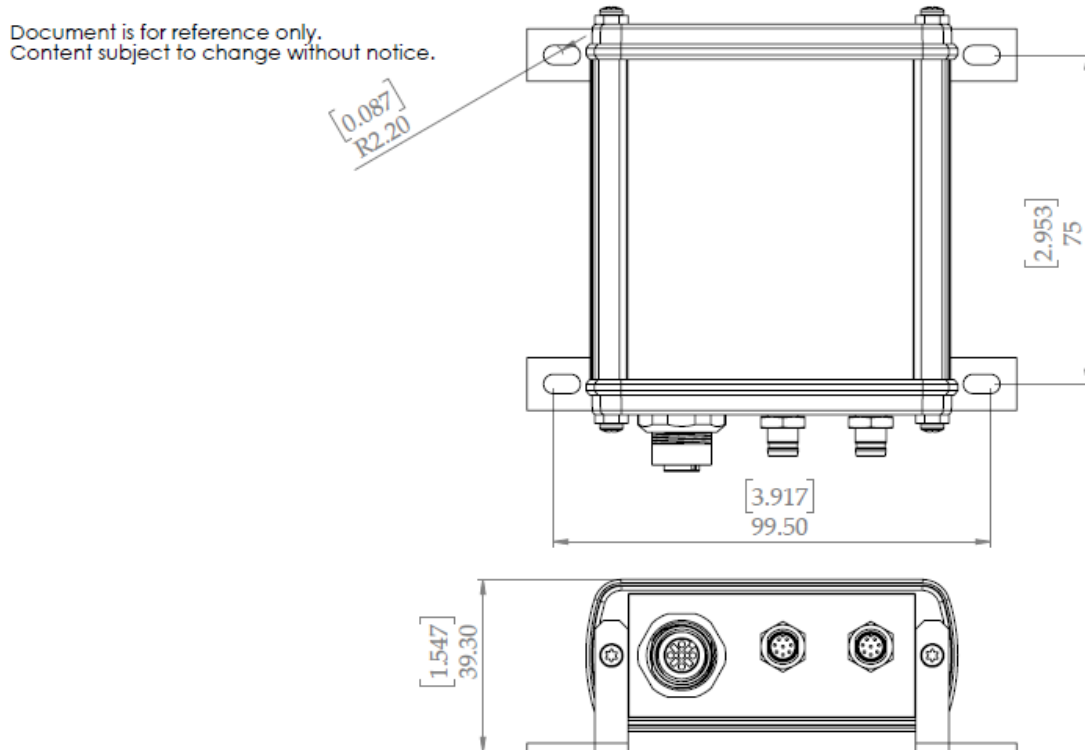


Every web guide control system would have a motor driver that takes the signal from the SCU5 controller and drives the stepper or servo actuator. A pre-wired motor communication cable from the SCU5 controller to motor driver would be supplied by Roll-2-Roll Technologies. The motor communication cable has two M8 4-pin female connectors.

MC QD 1140/1141

For intermediate web guides and retrofit kits MC QD 1140 or MC QD 1141 drivers can be used. The dimensions of the driver enclosure are shown below. All units in mm [in].



The driver can be mounted in a machine cabinet or on the machine frame close to the web guide, as long as the enclosure is properly grounded. The mounting screws or the wall mounting brackets can be used for grounding purposes.

Actuator Output

M12 4-pin female connector provides the actuator output signal from the driver. Pre-wired actuator power cable that connects the motor, that is part of the actuator, to the driver. The actuator power cable has one M12 4-pin male connector and one M12 4-pin female connector.

WARNING: Never connect or disconnect the actuator cable when the SCU5 controller is powered ON. All connections should be made prior to powering the SCU5 controller ON.

Servo Center and Limit Switches

M8 6-pin male connector is used for servo center and limit switch sensors. Pre-wired cable with an inductive proximity sensor is available for the servo center functionality.

WARNING: The actuator may not move if this cable is disconnected.

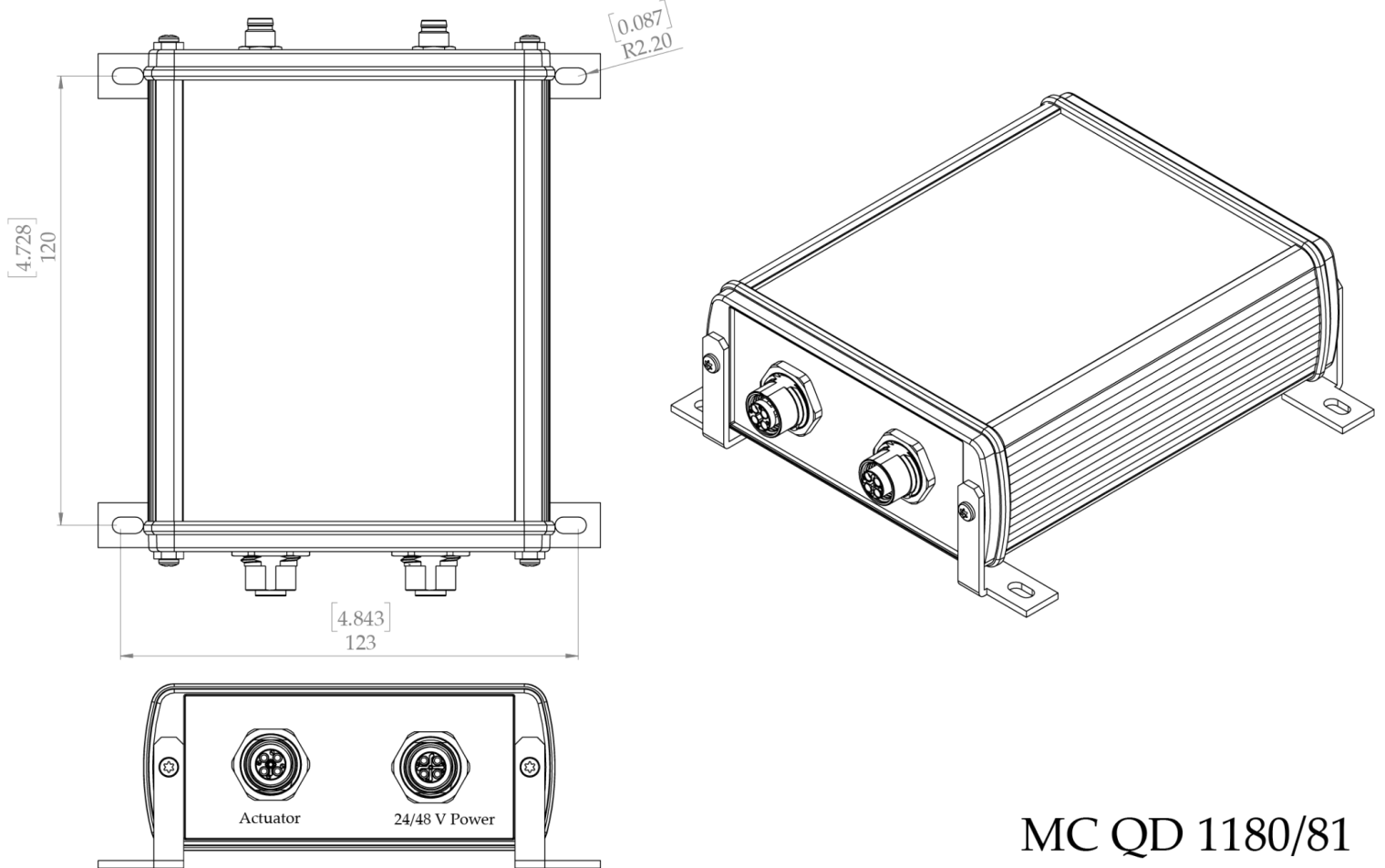
Power and Communication

A pre-wired motor communication cable is connected to this port. For this particular driver, the cable provides both power (24 VDC) and the communication signal to the driver from the SCU5 controller.

WARNING: Never connect or disconnect the motor communication cable when the SCU5 controller is powered ON. All connections should be made prior to powering the SCU5 controller ON.

MC QD 1180/1181

For large actuators 1180 or 1181 are used. Both these drivers have a separate power supply with higher wattage in order to actuate higher loads. Depending on the driver model 24 V (MC QD 1180 and 1181) or 48 V (MC QD 1180) power may be supplied to the driver using a power supply that can supply up to 6 Amps of rms current.



Communication

A pre-wired motor communication cable is connected to this port. For this particular driver, the cable provides both power (24 VDC) and the communication signal to the driver from the SCU5 controller. However, since the current requirements are higher for high thrust actuators, the 24 V DC from the SCU5 is not used to power the driver.

WARNING: Never connect or disconnect the motor communication cable when the SCU5 controller is powered ON. All connections should be made prior to powering the SCU5 controller ON.

Actuator Output

M12 4-pin T-coded female connector provides the actuator output signal from the driver. Pre-wired actuator power cable that connects the motor, that is part of the actuator, to the driver. The actuator power cable has one M12 4-pin T-coded male connector and one M12 4-pin T-coded female connector.

WARNING: Never connect or disconnect the actuator cable when the SCU5 controller is powered ON. All connections should be made prior to powering the SCU5 controller ON.

Servo Center and Limit Switches

M8 6-pin male connector is used for servo center and limit switch sensors. Pre-wired cable with an inductive proximity sensor is available for the servo center functionality.

WARNING: The actuator may not move if this cable is disconnected.

Driver Power

M12 4-pin S-coded female connector is used to provide power to the motor driver. 24/48 V DC Driver Power Cable is supplied by Roll-2-Roll Technologies to connect a power supply to the driver. If the driver power cable is made by the customer the pin out for the cable are as follows.



Pin	Color	Signal
1	Red	+24 or +48 VDC
2		No connection
3	Black	Ground/Common

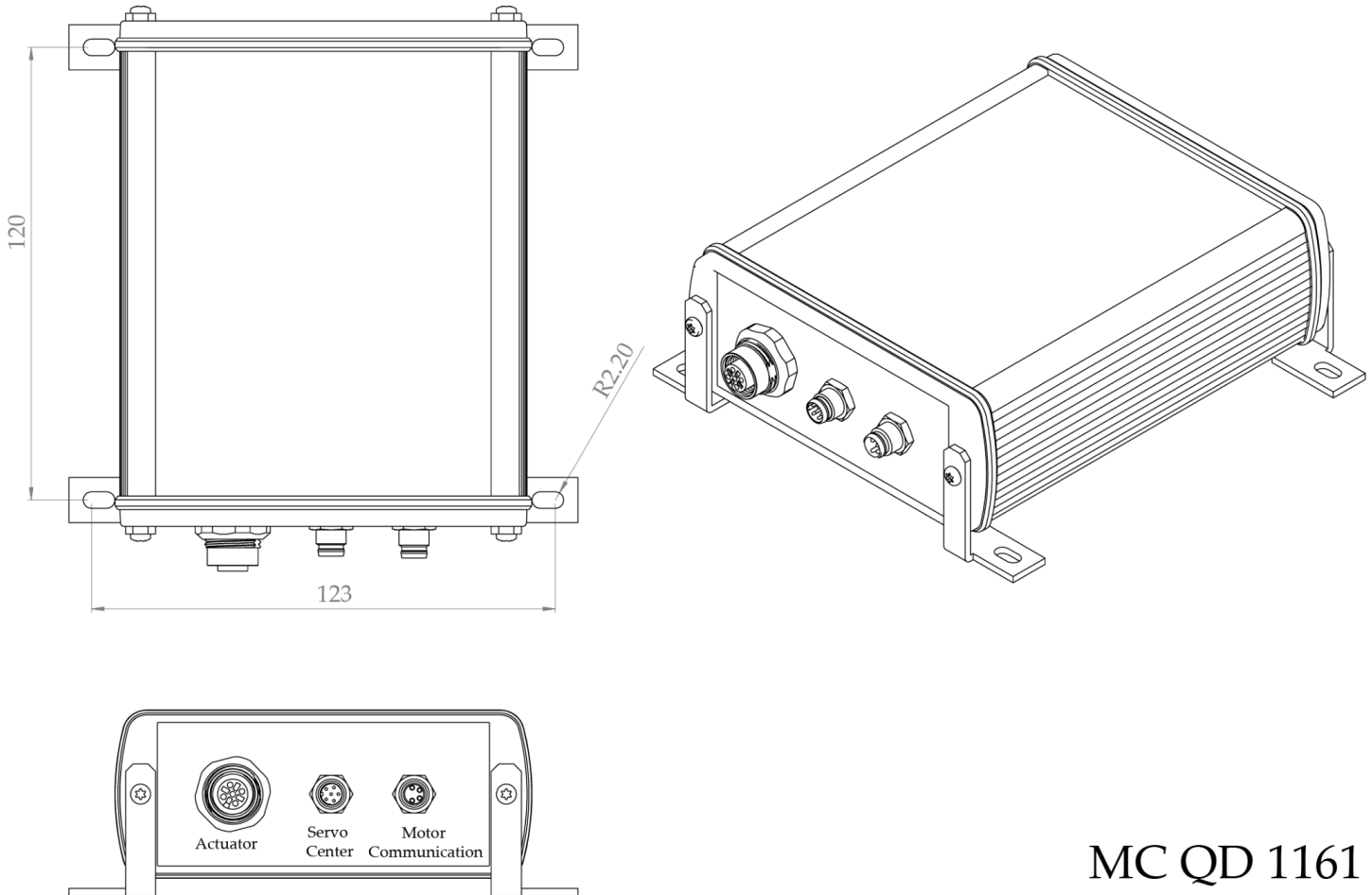
WARNING: MC QD 1181 operates with a maximum voltage of 26 V. Never supply more than 26 V for this driver.

WARNING: MC QD 1180 operates with a maximum voltage of 50 V. Never supply more than 50 V for this driver.

NOTE: Always power the MC QD 1180/1181 and SCU5 MD at the same time. If a time delay is needed then always power the motor driver first before powering the SCU5 MD. This is because the motor parameters are loaded from the SCU5 MD to the motor driver on start-up.

MC QD 1161

For medium sized actuators 1161 can be used. Similar to the MC QD 1140/1141 the power to the driver is provided from the SCU5 MD controller via the motor communication cable.



MC QD 1161

The driver can be mounted in a machine cabinet or on the machine frame close to the web guide, as long as the enclosure is properly grounded. The mounting screws or the wall mounting brackets can be used for grounding purposes.

Actuator Output

M12 4-pin female connector provides the actuator output signal from the driver. Pre-wired actuator power cable that connects the motor, that is part of the actuator, to the driver. The actuator power cable has one M12 4-pin male connector and one M12 4-pin female connector.

WARNING: Never connect or disconnect the actuator cable when the SCU5 controller is powered ON. All connections should be made prior to powering the SCU5 controller ON.

Servo Center and Limit Switches

M8 6-pin male connector is used for servo center and limit switch sensors. Pre-wired cable with an inductive proximity sensor is available for the servo center functionality.

WARNING: The actuator may not move if this cable is disconnected.

Power and Communication

A pre-wired motor communication cable is connected to this port. For this particular driver, the cable provides both power (24 VDC) and the communication signal to the driver from the SCU5 controller.

WARNING: Never connect or disconnect the motor communication cable when the SCU5 controller is powered ON. All connections should be made prior to powering the SCU5 controller ON.