# **Electrical Quick Start Guide**

## Important! Read this first!

Always consider environmental and mechanical conditions of the installation, such as ambient temperatures, chemicals, moisture and exposure to mechanical impacts, shock and vibration. For mechanical protection of the wiring as well as to comply with EMC (Electro Magnetic Compatibility) standards it is recommended to place the wiring in screened conduit or to use screened cables.

## Step 1: Location Considerations

Consider the voltage drop of the power supply wires. Locate the power supply sufficiently close to the actuator to ensure a genuine 24 Vdc is available at the actuator terminals when the actuator is operating. See section 3.2.2 of the actuator manual (IOM) for wire gauge vs. max cable length table.

#### Step 2: Installation

- a) ISOLATE the power before installation.
- b) The power supply MUST be regulated to 24Vdc (3.5 amps for G12 / 5 amps for G13).
- c) Remove the terminal enclosure cover of the actuator. Wire the power to the supply (Loca as shown in Figure 1. Use one of the cable entry points located either side of the actuator.
- d) Use a cable gland to ensure a water tight seal around the power cable or conduit.
- e) BOTH ends of the screen MUST be grounded. When placing the wiring in metal conduit, which is grounded, shielded cable is not required, but the conduit MUST be grounded at both ends.
- f) Ensure the conduit or screened wiring will NOT lead water into the actuator via the cable entry points.
- g) All actuators are shipped factory set to the customer's requirements specified at time of purchase.
- h) If an actuator needs to be re-configured use the CD supplied to install the configuration software on to a PC and then connect a serial cable between the actuator and PC. 95% of all applications can be set by selecting a "Standard Config" from the "Tools > Standard Config" menu of the Config software.

#### Step 3: Operation

- a) Press and hold the power switch for 2 seconds to turn the unit ON or OFF.
- b) When in local mode the actuator is operated from the keypad, located under the lid of the actuator. The keypad uses "dual press" functionality meaning either SET or MODE is held ON and then modified by pressing UP (+) or DOWN (-). Refer keypad legend (Fig 4) located on the underside of the keypad lid. E.g. to increase the temperature control set point HOLD SET and press UP (+).
- c) The normal display on the keypad is the present process value (e.g. temperature). Pressing SET will display the control set point.
- d) Refer to the manual for remote operation with current loop or selector switch.



Figure 3: Actuator Keypad & Display

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UNIT INDICATOR				
LED	Temperature		Positior	
1		ON		
2			ON	
UNITS	°C	°F	%	

Figure 4: Actuator mode keypad operation & LED indicator legend (Located under the lid of the actuator)

Sim	🛨 up	Increase Control Set Point		
	- down	Decrease Control Set Point		
set	Pressing 'set' displays Set Point. Normal display is 'present value'.			
	হি <sup>ম</sup> ে set	Remote or Local Mode Toggle		
(~)	🛨 up	Temperature Units: °C or °F		
mode	- down	Position or Temperature Toggle		
HOLD	PRESS	KEY OPERATION		



Figure 1: Electrical connection terminal (Located under the terminal cover)

