Aquatrac Instruments Application Note

Powering Current Loops AN010-31

1. OBJECTIVE

Details the wiring of a 4-20mA current loop powered by an 18-24VDC power cube located in the controller enclosure.

Loop powered sensors requiring more than 10 VDC cannot be powered by the controller internal 12VDC supply.

An 18-24 DC power cube may be used to power loop powered sensors.

2. CURRENT LOOP WIRING

These instructions are specific to controller input '**G**' and may be generalized for any controller input '**G**' to '**N**'

Cable AWG 22 RED/BLACK from the loop powered sensor and connect as follows:

Ensure that the loop terminating resistor '**LG**', located immediately inboard on the '**G**' controller terminal is installed. This jumper is installed as the factory default and terminates the current loop with 50 ohms.

Power Cube	4-20mA	Controller
18VDC Supply	Loop Powered	Terminal
	Sensor	
18 VDC '+'	Loop +	
RED	RED	
18 VDC '-'		G-
		_
	Loop –	G+
	BLACK	BLACK

Note: Multiple loop powered sensors may be powered from a one 18VDC power cube by connecting all of the Loop + terminals to the 18VDC '+' terminal

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