2iB ELECTRONICS

SC10 Single Pump Controller Quick Reference Guide

DIP Switches

Current Range

SW	1	2	Setting
	Off	Off	100% (default)
	Off	On	50%
	On	Off	25%
	On	On	12.5%

Pump Run Time Target

SW	3	4	5	Setting
	Off	Off	Off	3 min
	Off	Off	On	5 min (default)
	Off	On	Off	8 min
	Off	On	On	15 min
	On	Off	Off	30 min
	On	Off	On	1 h
	On	On	Off	2 h
	On	On	On	4 h

Alarm Relay Activates for …

SW	Setting
6	AIN (CT) Fault
7	Stop / Low Float
8	Start / High Float
9	Fail to Run (Low Current)

On = Activates for this condition. Default= Off,Off,Off,Off

Stop / Low Float Invert

SW	10	Setting
	Off	Closed = Low
	On	Open = Low

Current Window (%)

SW	Setting
11	On: +16%
12	On: +8%
13	On: +4%
14	On: +2%

Default = Off,Off,Off,On.

Modes

Default = Off,Off

SW	Setting
15	On: Disable Snore Stop
16	On: Disable Timer Start

Current % Display

PA = **PA**USING. Pump is Pausing.

CL = **CL**EANING. Pumps is Stopped for a Cleaning flush.

Number = The measured current as a percentage of the measured range (taking into account the Current Transformer range configured using the DIP switches).
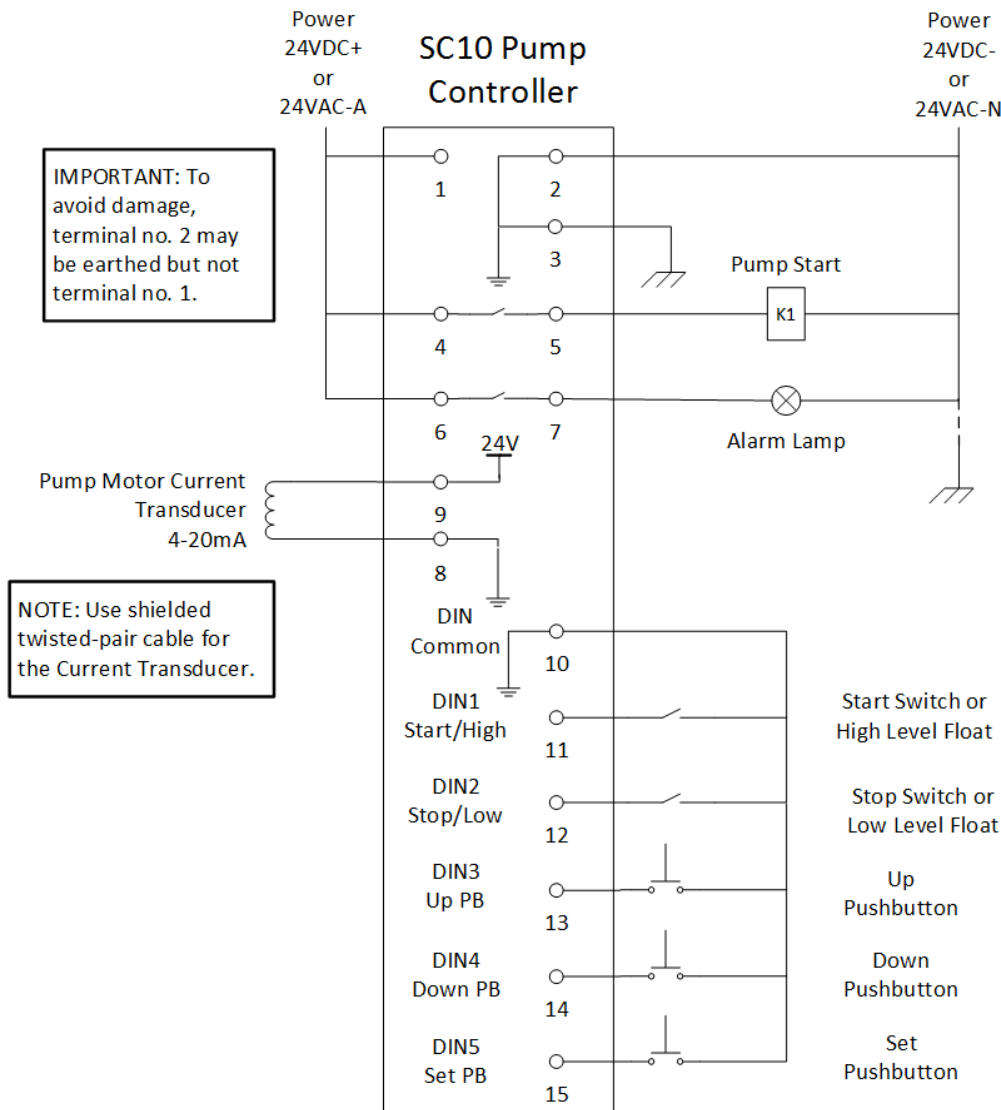
Terminals

Power	DC+ / AC	1
24VAC	DC- / AC (Earth)	2
12-24VDC	Earth	3
Pump Run Relay		4
		5
Alarm Relay		6
		7
Pump Current CT (4-20mA)	-	8
	+	9
Digital Inputs	DIN Common	10
	DIN 1: Start / High Float	11
	DIN 2: Stop / Low Float	12
	DIN 3: Up Pushbutton	13
	DIN 4: Down Pushbutton	14
	DIN 5: Set Pushbutton	15
	DIN 7: Disable Cleaning Cycle	17
	DIN 8: Remote Config. Mode	18
No Connection		19-27
Do not use (AIN+ Loop Power)		28
Modbus RTU (RS485)	A	29
	B	30
	Earth	31
No Connection		32-36

LED Indicators

Power	On	Power is Present
	Flash	Unit starting up.
Run / Pause	On	Pump is Running
	Pulse Flash	Pump is Pausing and will start when pause timer completes or high float or start signal activates.
	Fast Flash	Pump Snoring. Pump will stop after 10 seconds of snoring
	Slow Flash	Pump Starting or running a cleaning cycle.
Stop Input / Low Float	On	Stop Input / Lo Float Active
Start Input / High Float	On	Start Input / Hi Float Active
Alarm	Flash	Alarm Present & Alarm Relay Active
Fail to Run	On	Pump previously failed to run. (Current Not detected when the pump run relay is active.)
	Fast Flash	Pump is failing to run.
Hi Current	Fast Flash	CT input too high
	Pulse Flash	CT input is above 100% of range. Consider adjusting CT measuring range or using a larger CT.
Lo Current	Fast Flash	CT input too low.

Pulse Flash = Active for 0.25 secs every second.
Slow Flash = 1Hz Flash. Fast Flash = 2 Hz Flash.

For full manual visit www.2ib.com.au

Power
24VDC+
or
24VAC-A

**SC10 Pump
Controller**

Power
24VDC-
or
24VAC-N

IMPORTANT: To avoid damage, terminal no. 2 may be earthed but not terminal no. 1.

1 2

3

Pump Start

K1

4 5

6 24V 7

Alarm Lamp

Pump Motor Current Transducer 4-20mA

9

8

NOTE: Use shielded twisted-pair cable for the Current Transducer.

DIN Common 10

DIN1 Start/High 11

Start Switch or High Level Float

DIN2 Stop/Low 12

Stop Switch or Low Level Float

DIN3 Up PB 13

Up Pushbutton

DIN4 Down PB 14

Down Pushbutton

DIN5 Set PB 15

Set Pushbutton

Quick Commissioning – Setting the Stop Current

Pressing the Set button combination (⇧+⇩ simultaneously) or a pushbutton connected to the Set Pushbutton input sets the Stop Current to Measured Current + Window Current

To Set the Stop Current Setpoint perform the following steps:

1. Ensure that there is enough fluid in the sump or container so the pump doesn't immediately draw in air
2. Press the Start button on the relay or on the front of the panel to start pump.
3. When the pump running and is snoring (drawing air), press the ⇧Up and ⇩Down buttons simultaneously. The stop current setpoint is now set to the displayed percentage.
4. Allow water to fill above pump suction and start the pump again to ensure it stops when snoring. If it doesn't stop adjust setting or expand window current.

Setpoint SET