# ADM Toolbox 2008



# **4-20mA Analog Outputs**

# Analog Output required is 4mA at 0Kg and 20mA at 10000Kg

Problem: Analog output will not go below 4.00mA at 0Kg, so there is no negative weight output

Analog output will not go above 20.00mA at 10000Kg, so there is no over weight output

The AD4405, AD4406 and AD4407 Option 07 Analog output cards employ a AD420 "DAC" digital to analog output converter. The AD420's DAC offers 16 Bits resolution or 1/65,536 counts more than enough for any PC/PLC control system in today's environment.

The AD420 DAC also provides three (3) other output formats other than the standard of 4-20mA, they are 0 to 20mA, 0 to 24mA and 0 to 5V outputs. A modification to the Option 07 PCB circuit is required, this should ONLY be performed by qualified personnel.

#### 0 to 20mA Modification

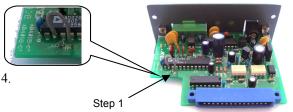
Step 1. Remove the C17 Capacitor

Step 2. Cut pin 2 track on PCB

Step 3. Link pin 2 VLL to Pin 4 RS2

Step 4. Fit link Pin 5 to GND

Step 5. Cut GRD track connection to Pin 4.





Step 5

### 0 to 24mA Modification

Step 1. Remove C17 Capacitor

Step 2. Replace capacitor with a link

Step 3. Cut GND track connection to Pin 4

## Settings a AD4405, AD4406 and AD4407 Indicator

Set F30 Data Output 1 for Analog Output

Set F31 Output Data 0 = Display, 1 = Gross and 2 = Net

Set F32 Weight at 4mA This setting is now for 0mA

Set F33 Weight at 20mA This setting is now for either 20 or 24mA

E.g. Indicator capacity is set to 10000 x 1, Over and Under weight outputs are required. 4mA is required to be output at 0Kg, under 0Kg 3.99mA or less 20mA is required to be output at 10000Kg, over 10000Kg 20.01mA or more.

Set F32 to Minus (-) 2500 this = 0mA Set F33 to Plus (+) 12500 this = 24mA



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