

## Summing unit SU/3

# SU/3

### APPLICATION

The SU/3 has 3 analogue inputs for 0...10 VDC and 1 analogue output 0...10 VDC for the sum of the 3 inputs separate adjustable. It is possible to set 2 signals for addition and 1 signal for subtraction.

### DESIGN

The SU/3 is supplied with 15 VDC from FHC or RFC. Internal reference 10 VDC for the adjustment of the input signals.

3 miniature switches with 5 on/off switches for setting of function and adjustment.

2 adjustment potentiometers for each input signal the second one for fine adjustment.

#### Example:

Three analogue signals 0...10 VDC for flow shall give one analogue output 0...10 VDC for the total flow.

The 0...10VDC input signals are for Input 1 160 l/s, input 2 250 l/s, Input 3 100 l/s.

Total flow is 510 l/s.

The output from signal 1 shall be adjusted to:  
 $160/510 = 0,314 \times 10 \text{ VDC} = 3,14 \text{ VAC}$ .

The output from signal 2 shall be adjusted to:  
 $250/510 = 0,49 \times 10 \text{ VDC} = 4,9 \text{ VAC}$ .

The output from signal shall be adjusted to:  
 $100/510 = 0,196 \times 10 \text{ VDC} = 1,96 \text{ VAC}$ .

The output for the sum will be 10 VDC for 510 l/s.

### DIL SWITCHES FUNCTION

DIL 1: Inputs from terminal 3-8 ON/OFF

DIL 2: Reference 10 VDC for signal to be adjusted

DIL 3: Minus to not used input on terminal

### ADJUSTMENT

Connect 15 VDC to terminal 1+ and 2- and a voltage meter to 9+,10-.

**Note!** The values are taken from the example above.

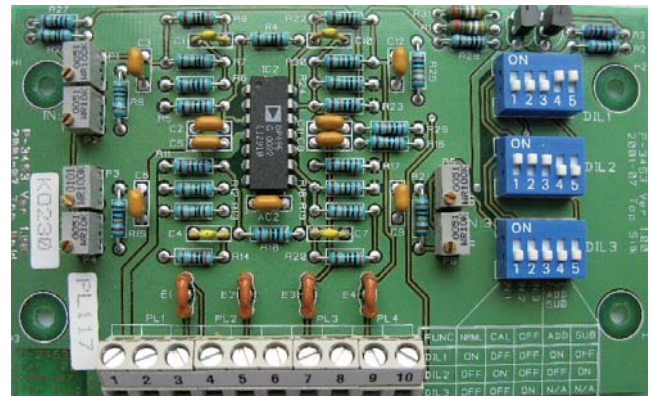
DIL 1: 1-3 OFF and 4-5 ON

DIL 3: 1-5 OFF

DIL 2: 1 ON adjust with P1 and P2 to 3,14 VDC

DIL 2: 1-2 ON adjust with P3 and P4 to 3,14+4,9= 8,04 VDC

DIL2: 1-3ON adjust with P5 and P6 to 3,14+4,9+1,96= 10,0 VDC



### OPERATION

DIL 1: 1-2 and 4-5 ON if only two inputs, 1-3 and 4-5 ON if three inputs

DIL 2: 1-5 OFF

DIL 3: 1-2 OFF and 3 ON if only 2 inputs, if three inputs 1-3 OFF. 4-5 no function

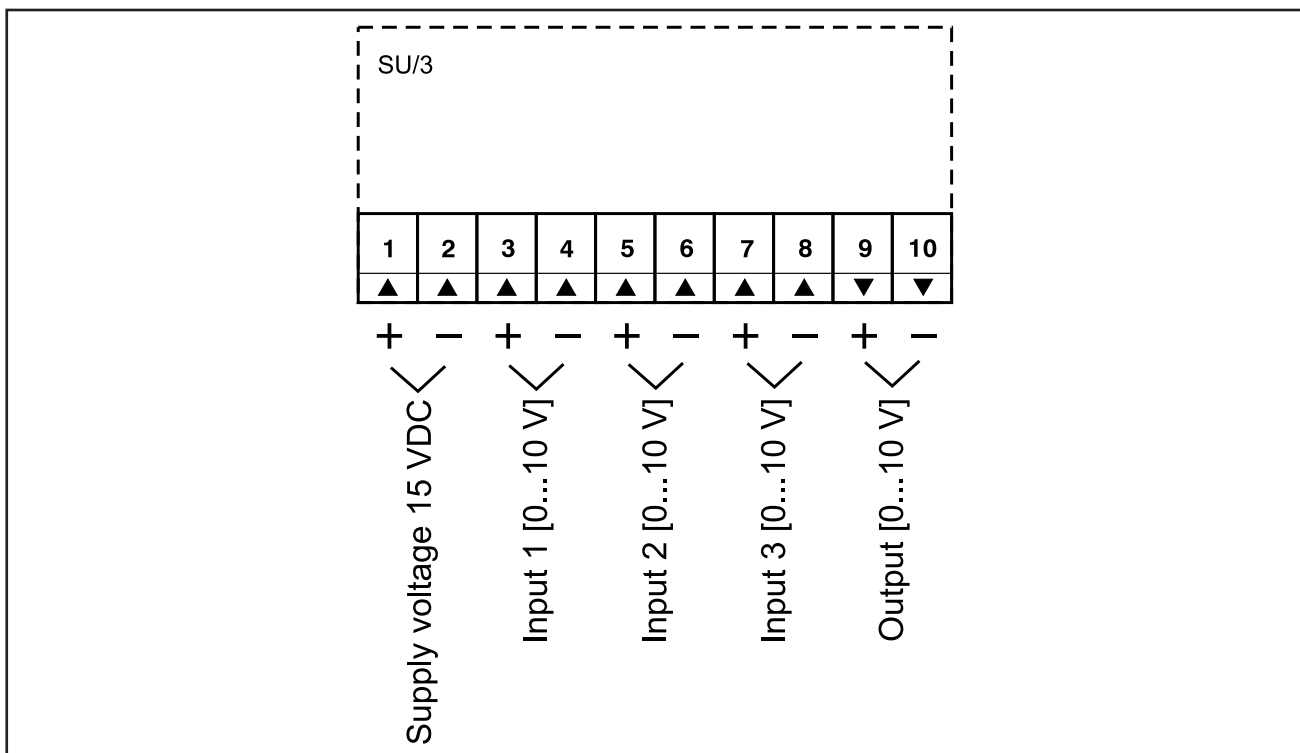
**TECHNICAL DATA:****Power supply:** 15 VDC from controller**Analogue input :** Three 0...10 VDC**Analogue output:** One 0...10 VDC**Dimensions [WxHxD]:** 122x120x60 mm**Cable entries:** 4 holes M16x1,5**Weight:** 0,25 kg**EMC/LVD:**

Applied EU directives:

- EMC SS-EN 61000-6-3:2007 + A1:2011

- LVD SS-EN 61000-6-2:2005 + C1:2005

SS-EN 61010-1:2010

**Electrical connection:**

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