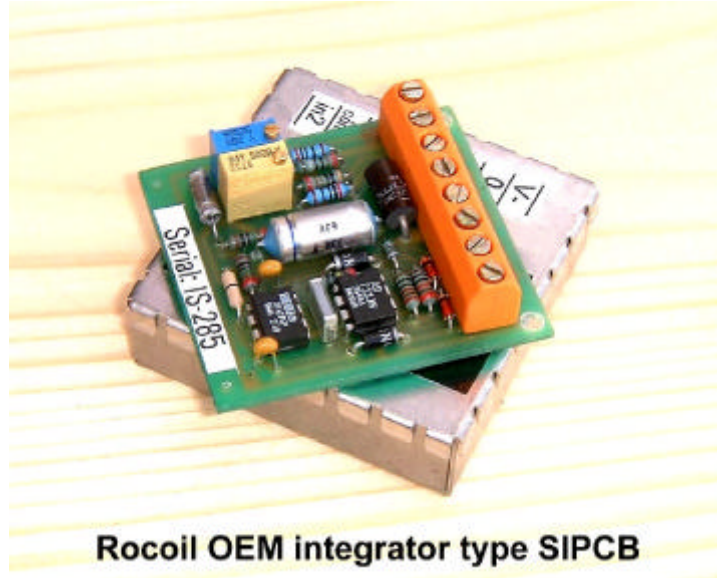


# Rocoil

PRECISION ROGOWSKI COILS

## ROCOIL OEM INTEGRATORS

The Rocoil OEM integrator is a compact integrator that can be used with any of the Rocoil coils for current measurement. The integrator is supplied on a PCB inside a screened box. Overall dimension is approximately 50 x 50mm.



**Rocoil OEM integrator type SIPCB**

The integrator requires a power supply with positive and negative rails; typically  $\pm 15$  V but it can be used at supply voltages less than  $\pm 6$  V. The main effect of using a low power supply voltage is that the output voltage of the integrator is restricted.

The integrator can be calibrated to have two different sensitivities. The sensitivity is selected depending on which input the coil is connected to. Alternatively the two inputs can be calibrated to have the same sensitivity and the integrator used to give the sum (or difference) of the currents in two coils.

The integrator has eight terminals.

<b>V-</b>	negative supply rail
<b>0</b>	supply zero
<b>V+</b>	positive supply rail
<b>out</b>	integrator output
<b>out com.</b>	'earthy' side of the integrator output
<b>in2</b>	coil white lead for second sensitivity
<b>in com.</b>	coil black lead
<b>in1</b>	coil white lead for first sensitivity

The *supply zero*, *out com.* and *in com.* terminals are connected together internally and are earthed to the case. If the coil lead has a screen, it should be connected to the case or to one of these terminals

The sensitivities corresponding to input 1 and input 2 are not given because they can be specified by the user.

The power supply voltage should not exceed  $\pm 18$  V. With a  $\pm 15$  V supply the output will be linear to more than 12 V. Thus on a 1 kA/V range it will be possible to measure more than 12kA peak (8.5kA rms for a sine wave).

The measuring system should be grounded somewhere. If the power supply is floating and the measuring instrument has a differential input it is recommended that the *out com.* terminal is grounded.

The integrator can be used without the metal case but some form of screening is advisable to minimise noise. A screened lead (co-ax) for the output will also minimise noise.