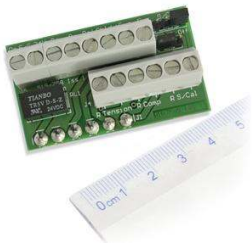
# mantracourt

# SGABCM Bridge Completion Module

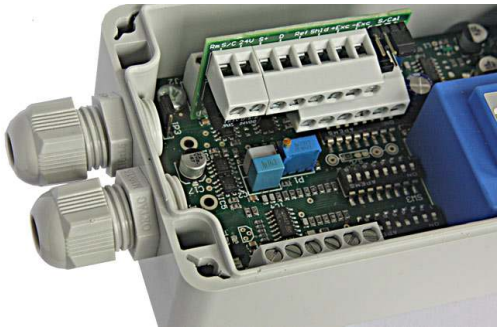
## Instruction Sheet



The SGABCM is a retro-fit PCB which facilitates connecting a half or quarter-bridge strain gauge to the SGA Load Cell conditioner.

SGA with a retro fitted bridge completion module pcb.

## *Retrofit pcb*

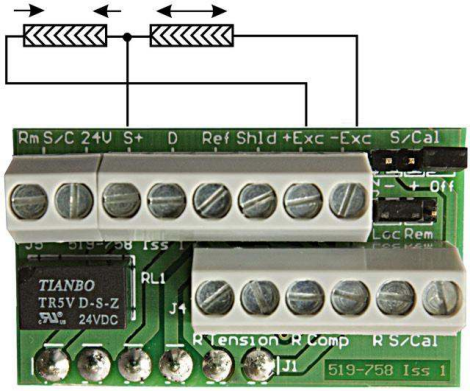


Screw the SGABCM Module into the normal load cell connector J2

## *Half Bridge*

The half-bridge is simply connected to the SGA via the screw terminals as shown below and no additional components are required:

Half Bridge Connection

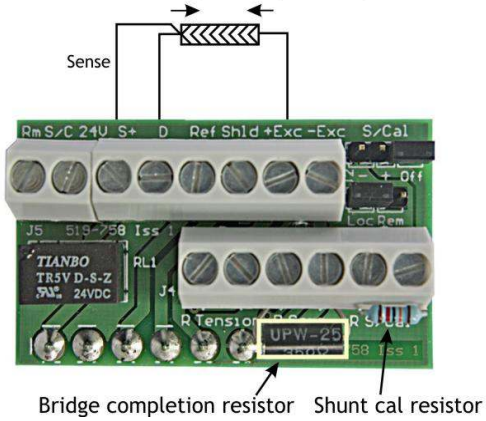



## *Quarter Bridge*

The quarter-bridge, together with its completion resistor can be wired in two ways depending on whether the user requires a positive output as a result of the strain gauge being subjected to a compression force or a tension (stretching) force. A 350 Ohm 5ppm/°C completion resistor
and a 120k 15ppm/°C shunt calibration resistor are provided in the SGABCM kit

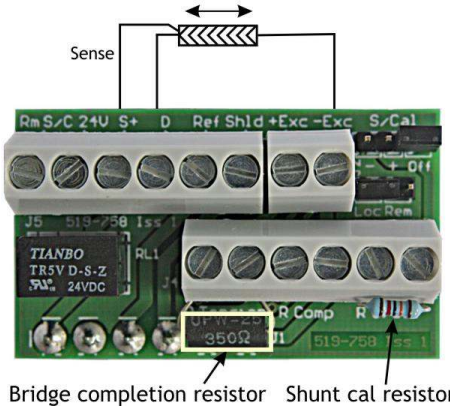
## *Quarter Bridge - Compression*

3-Wire Quarter Bridge - compression gives +ve output




## *Quarter Bridge - Tension*

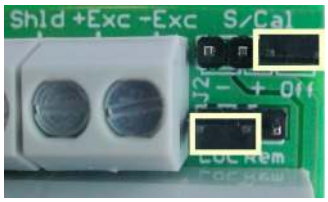
3-Wire Quarter Bridge - tension gives +ve output



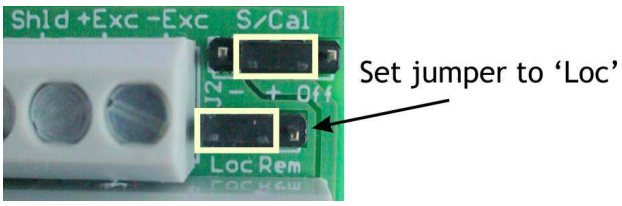
## *Shunt Calibration*

To implement ‘shunt cal’ a set of header pins are provided with a jumper link that can be fitted in one of three positions: ‘Off’, ‘+’ (positive shift) and ‘-‘ (negative shift). These are clearly marked on the PCB. The shorting link should be parked in the ‘Off’ position for normal use.
A second set of pins selects between ‘Local’ and ‘Remote’ shunt cal.

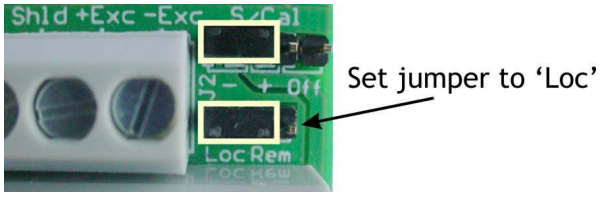
### *Shunt Calibration Off*




### *Local Positive Shunt Calibration*

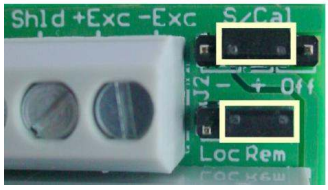


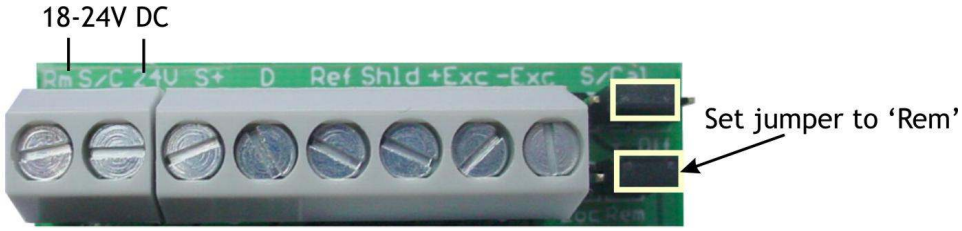

### *Local Negative Shunt Calibration*




### *Remote Shunt Calibration*

‘Remote Shunt Cal’ is performed by setting the jumper to ‘Rem’ and energising the 24V DC relay fitted to the module.




Designed, Manufactured & Supported in the UK

ISO 9001 REGISTERED FIRM

CE *In the interests of continued product development, Mantracourt Electronics Limited reserves the right to alter product specifications without prior notice.*

# Distribuidor

## Brasil e América do Sul

CONTATO

Endereço
Rua Sete de Setembro, 2656 - Centro
13560-181 - São Carlos - SP - Brasil

Telefone
+ 55 (16) 3371-0112
+ 55 (16) 3372-7800

Internet
www.metrolog.net
metrolog@metrolog.net

Metrolog Controles de Medição