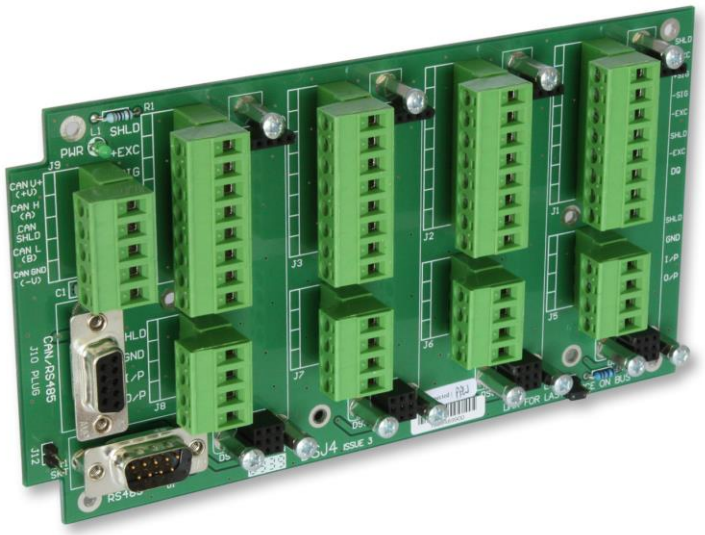
mantracourt

DSJ4

Strain Gauge or Load Cell Digitiser Module (4 Channel)



Designed to enable the easy connection of up to 4 load cells and 4 DSC cards to a multi-dropped digital communications bus

Introduction

Up to 32 DSJ4s can be connected to 1 digital bus.

The communications output connection is RS485 or CAN, please note* that RS232 is NOT available with this unit. (Refer to DSJ1)

*The DSJ4 does not include the required DSC cards. Please refer to the DSC product Sheet for available options.

Specification at a Glance

- Option to terminate bus through 120 ohm resistor
- Bus connections for communication and power supply
- Bus connection via 2 part screw connectors
- Daisy chain bus through D type connectors
- 2 part connectors for load cells
- CAN compliant option
- 3 x screen clamps for EMC termination
- Cable length DSJ4 to load cell 3 m
- Cable length of digital data 1000 m
- DSJ4 PCB dimensions 100 x183 mm
- IP65 / NEMA 4 enclosure dimensions 200 x120 x75 mm

User Benefits

- IP65 / NEMA 4 case for 1 digitiser module
- LED power indicator
- DIN rail fixture optional
- 3 year warranty

Ideal Applications

- Marine
- Silo & Weighing industry
- Test & Measurement
- Industrial Processing
- Chemical
- Agriculture

Related Product

DSC
Card version available the strain gauge data converter to RS232. Modbus, CAN, RS885

EVAL KIT
Evaluations kits for DCell and DSC are available for stress free set up.Strain gauge data converter to RS232. Modbus, CAN, RS885

DSJ1
Strain gauge data converter to RS232, Modbus, CAN RS485

DSJ4
4 channel digital load cell converter CAN RS485 Modbus, or IP65 cased version available

Case Study

The Application:
To succeed in racing, yachts have to achieve maximum performance and the forces acting upon a yacht's mast can give an indication on how efficient the sail is performing.

The Solution:
A carbon fibre free-standing yacht mast had four sets of strain gauges fitted fore, aft, port & starboard. Four digial load cell conditioning cards (DSC) were buried in the mast and a single four core cable brought back to a graphical display mounted in the cockpit of the yacht. The gauges were calibrated by applying known forces in all four directions. Alarm levels were also added to give an audible warning from the display unit in the event of the mast being over strained.

The benefits of the DSC meant that a single four core cable could be brought from the mast to the cockpit instead of the sensitive strain gauge wires. The small size of the DSC's allowed them to be buried inside the carbon fibre structure of the mast.

CE & Environmental

Storage temperature	- 20 to +70ºC
Operating temperature	- 10 to +50ºC
Relative humidity	95% maximum non condensing
IP rating	IP65 / NEMA 4

CE Environmental Approvals	
European EMC Directive	2004/108/EC
Low Voltage Directive	2006/95/EC

For more information contact us today…

mantracourt.com
technical@mantracourt.com
Mantracourt Electronics Ltd
The Drive, Farringdon, Exeter,
Devon, EX5 2JB, UK
tel: +44 (0) 1395 232020
fax: +44 (0) 1395 233190

Industry Canada
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Designed, manufactured and supported in the UK

ISO 9001 REGISTERED FIRM

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

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