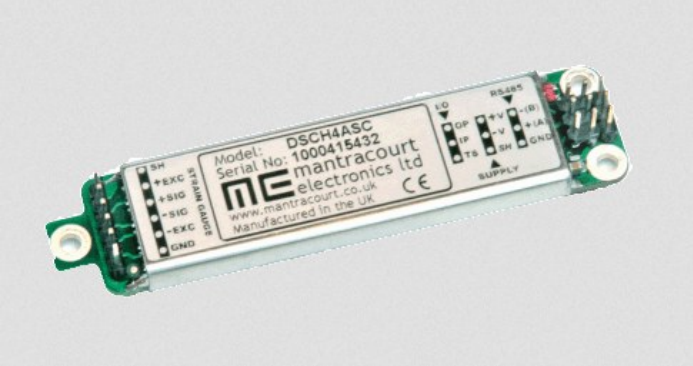
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Convertor DSC



Convertor DSC Producator: LCM Systems DSC Digital Strain Gauge to Data Converter

Descriere

DSC Digital Strain Gauge to Data Converter

Features :

- RS485 and RS232 versions available
- Baud rates to 230k
- High speed to 500 Readings/Sec
- ±15KV ESD protected
- Real mV/V calibration
- Noise Immunity 5x heavy industrial level
- Diagnostics LED
- Remote shunt calibration
- Very high stability
- Peak and trough recording
- Programmable dynamic filter
- Operating voltage (5.4 - 18Vdc)

The DSC is a high performance digital signal conditioner with a host of additional features for the precision measurement of strain gauge based transducers.

The DSC is available with an RS485 or RS232 output format, making it suitable for "one-to-one" or mutli-drop systems. Including the DSC into load cell based applications enables the building of very high accuracy load cells, using the built in linearisation and temperature compensation facilities.

The DSJ1, single channel junction box and DSJ4, four channel junction box are available to assist with simple on-site installation and commissioning.

LCM Systems can also supply PC based software packages, specially written to interface with DCELL based load cells and pressure transducers. Please contact our technical department to discuss your requirements.

Specification :

Description							
	Min	Typ	Max	Min	Typ	Max	Units
Bridge Excitation	4.5	5	5.25	4.5	5	5.25	VDC
Bridge Impedance	320	350	5000	320	350	5000	Ohms
Sensor Impedance (18v supply)	320	350	5000	320	350	5000	Ohms Δ
Sensor Impedance (12v supply)	120	350	5000	120	350	5000	Ohms Δ
Bridge Sensitivity	-3		+3	-3		+3	mV/V

Offset Temperature Stability		1	4		5	10	ppm/°C
Gain Temperature Stability		3	5		30	50	ppm/°C
Offset Stability with time		0.002	0.008		0.0035	0.016	%FR
Gain Stability with time			30		300		ppm of FR/1st year
Non Linearity		0.0005	0.0025		0.0005	0.0025	%FR
Internal Resolution		16 Million			16 Million		Counts/Divisions
Resolution @ 1Hz (Noise Stable)		400,000			100,000		Counts/Divisions
Resolution @ 10Hz (Noise Stable)		120,000			40,000		Counts/Divisions
Resolution @ 100Hz (Noise Stable)		50,000			10,000		Counts/ Divisions
Resolution @ 500Hz (Noise Stable)		18,000			5,000		Counts/ Divisions

Description

Optional			
Temp Measurement Resolution	0.1	0.1	°C
Temp Measurement Accuracy	1	1	°C
Notes: From original offset at any time Stability over 100 seconds Δ Subject to supply voltage (see electrical specifications)			

Optional

Electrical							
	Min	Typ	Max	Min	Typ	Max	Units
Power Supply Voltage		5.4	12	18	5.4	12	18
Power Supply Noise/Ripple				100			100
Supply Current (350R Bridge)			45	60		45	60
Power@10V Supply (350R Bridge)			350			350	
Excitation System			4 wire			4 wire	

Electrical

Communications							
	Min	Typ	Max	Min	Typ	Max	Units
RS485/RS232 Data Rate	2400		230k	2400		230k	Baud
Protocols	ASCII, MANTRABUS II, Modbus RTU						

Communications

CE & Environmental	
Storage temperature	-40 to +85ºC
Operating temperature	-40 to +85°C
Relative humidity 95% maximum non-condensing	
Safety/Low Voltage Directive	2006/95/EC
EMC Directive 89/336/EEC	2004/108/EC

CE & Environmental