



Signal Conditioning Unit - 32 channels

CEL-SCU290A Technical Specification

Features:

- Up to 8, 4-channel AC/DC universal conditioners or 8, 2-channel universal frequency conditioners, or 8 2-channel RVDT/LVDT signal conditioners can be inserted in the SCU290A card cage for a total of 32-channels combination.
- 19 inch rack mount 3u (1 u = 1.75"), designed for maximum cooling air flow
- Field connections are easily made on BNC connectors at rear of chassis
- Mating with A/D 64 inputs, 16 bit accuracy and sampling at 333,000 samples / second.
- All field connections enter on tri-axial connectors which are differential, isolated from chassis with separate instrumentation ground.
- A/D will support up to 64 channels (may require multiple card cage).



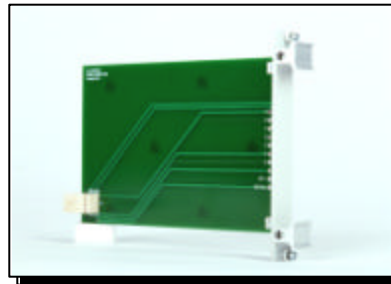
A/D extender card



Bus extender card

Typical applications:

- Aircraft engine test cell
- Automotive engine test cell
- Industrial data acquisition
- Position measurement using RVDT,LVDT
- Rotational speed measurement
- Test using bridge type sensors



Power extender card



8 slots signal conditioner chassis

General description:

The SCU290A is designed for high speed signal conditioning and acquisition. Signal conditioning cards have been designed to accept a variety of different transducers, including bridge-type, RVDT/LVDT, and frequency. The chassis can accept up to 8 x 4-channel AC/DC signal conditioners, 8 x 2-channel frequency signal conditioners or 8 x 2-channel RVDT/LVDT signal conditioners.

A multi-layer high density backplane located in the center of the rack routes all 32-channels of acquisition to the analog-to-digital converter extender. There are 3 different extender boards which are supplied with the SCU290A card cage. These extender boards provide interface for communication with the internal bus. The power extender, bus extender and A/D extender provide communication access to all 32-channels.

A channel of acquisition consists of a pre-conditioner and a conditioner. The card cage contains eight slots to accommodate eight signal conditioners and eight pre-conditioners. All transducer signals or signals to be measured, enter the pre-conditioner boards. Set-up and configuration of the bus is accomplished via an LPT port.



Specifications

Parameter	Value
Maximum number of channels	32
Input from power distribution unit (PDU)	D-sub high power
Input from sensor	Twin-axial BNC
Output to acquisition board	Amplimite d-sub 100
Overspeed relay output	High density db-15
Dimensions	5.25 in. h x 19 in. w x 16 in. d

Environmental Characteristics

Parameter	Value
Temperature	0 deg. C. to +50 deg. C.
Power requirement	+ 15vdc 3 amps
	- 15vdc 3 amps
	+ 5 vdc 6 amps

Ordering Information

Model	Description	Type	Part #
QSC290A-1	Quad AC/DC Conditioner	With filter With s&h	YY64204-01
QSC290A-2	Quad ACDC Conditioner	With filter No s&h	YY64204-02
QSC290A-3	Quad ACDC	Stand – alone With i/o conn.	YY64204-03

QSC290A-PC-1	Universal AC/DC pre - conditioner	4-20 mA	YY64283-01
QSC290A-PC-2	Universal AC/DC pre - conditioner	AC/DC Volts	YY64283-02
QSC290A-PC-3	Universal AC/DC pre - conditioner	Strain gauge	YY64283-03



DFC290A-1	Dual channel Frequency Conditioner	Overspeed circuit Channel selection Auto-calibration	00937224-01
DFC290A-2	Dual channel Frequency Conditioner	No overspeed No channel select. Auto-calibration	00937224-02

DFC290A-PC-1	Dual channel Frequency Pre-conditioner	With multiplier Overspeed simulator Auto-calibration	00937223-01
DFC290A-PC-2	Dual channel Frequency Pre-conditioner	No multiplier Overspeed simulator Auto-calibration	00937223-02
DFC290A-PC-3	Dual channel Frequency Pre-conditioner	No multiplier No overspeed simulator Auto-calibration	00937223-03

DPM290A-1	Dual channel RVDT/LVDT Conditioner	With oscillator	YY64203-01
DPM290A-2	Dual channel RVDT/LVDT Conditioner	No oscillator	YY64203-02

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