

Amplifier conditioner converter of signals, analog output

APPLICATIONS

- Acquires very low signals in disturbed areas needing galvanic isolated amplifiers
- Measuring : distortion, pressure, force (gauge sensor)



DESCRIPTION

E300F4 amplifier conditioner can be used twofold:

- strain gauge sensor conditioner
- high precision amplifier for low level voltage

Galvanic isolation gives an excellent common mode rejection. Gain, filter, sensor supply are set up manually (buttons at the front). Each amplifier has a 220VAC supply.

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TECHNICAL FEATURES

Technical features

Low drift	0.2mV/°C
Low noise	
Good stability	5ppm
High common mode rejection	
Switchable gain	From 1 to 2000, progression 1-2-5 ...
Accuracy	0.02%
Output filter	From 1 to 7KHz (7 positions)
Bandwidth	
Bridge balance	0-1000 KHz
Input/output isolation	Counter voltage
Anti short-circuiting output	±500V
Format	
Input features	Camac rack 19" 4U with supply sock at the rear
Switchable at the front	
Stability	
Accuracy	
Linearity	0.02% extrapolation by 10-turn potentiometer
Gain	0.01%
Drift temperature	
According to time	
Zero	
Linear	
Max without damage	
Voltage	
Common mode	±500V (input / output)
Common mode rejection	
Current	Rd=0 ohm DC 160dB 50Hz 140dB
Input current	
Resistance	1nA max
Source de resistance	
Differential input resistance	
Capacity	
Possibility to supply with current	2 or 4 wires

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CONFIGURATION

Voltage supply	Extrapolation of ranges by 10-turn potentiometer from 1 to 2000, positions : 1-2-5...
Current supply	From 0 to 15 V DC
Regulation	By switch (1V not available)
Regulation line	
Regulation charge	0.005% for $\pm 1\%$ DV
Stability	0.02% for 50 to 100% DV
Drift	$\pm 0.002\%/^{\circ}\text{C}$
Range	From 0 to $\pm 15\text{mV}$ RTI by switch (1mV not available)
Stability	Range of extrapolation by 10-turn potentiometer
Output features	$\pm 0.002\%/^{\circ}\text{C}$
Configuration	
2 outputs	
Resistance	Filtered output: 2 nd order butterworth filter (4 th order optional) non-filtered output
Output resistance	
Voltage	<0.1 ohm
Current	$\pm 10\text{V}$ mini
Capacity	$\pm 5\text{mA}$
Loading capacity	
Bandwidth	0.1mF max
Control command	Non-filtered. From 0 to 100KHz for -3dB
1 logical status	
Mechanic features	Input/control switch
Weight	1800g (nominal)
Size	See picture
Connector	Female connector FRB 50 contacts
Rack	
Dimensions	
Size	
Configuration	19", 4U
Receives 8 x E300F4 units	
Network connection	
Connectors at the rear	220 single-phase, $\pm 10\%$ 50VA

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Standard

Filtered output	Input + bridge: 8-male Jeager connectors (533272)
Non-filtered output	1 x miniature male 27-male Jeager connectors
Control relay command / measuring	1x miniature male 27-male Jeager connectors
Control input	1 x 25-male connectors
Power socket	1 x 3-male Jeager connectors

OTHER CONFIGURATIONS ON DEMAND

Environnement

Use Temperature	From 0 to +60°C
Storage temperature	From -55°C to +85°C