



ISO AMP Card - Four channel analog isolation amplifier Safety isolation

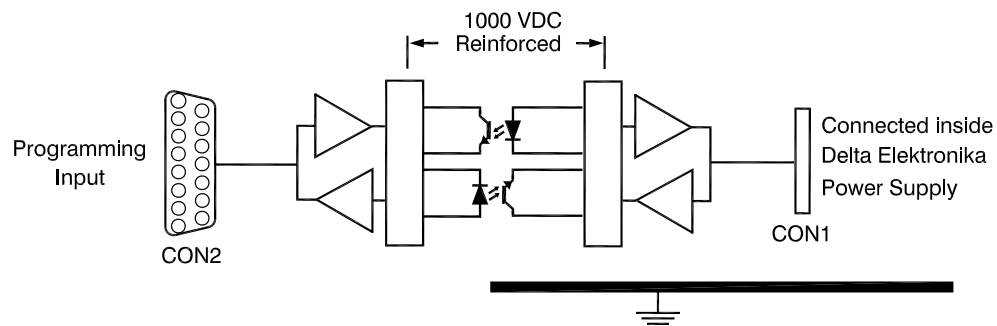
Features

- Selectable 0-5 V and 0-10 V signal levels
- Isolated programming and monitoring of U, I and status signals
- Prevents problems with earth loops and CM-voltages
- Factory installed

Specifications

- Programming and monitoring offset : +/- 60mV typical
- Full scale error : 0.1% calibrated
- Non-linearity : 0.01% typical, TC = 65ppm/°C
- Common mode rejection : 80 db @ 50 Hz

Block diagram



Specifications

- CON 1 - internal circuitry : To plug the card inside the power supply (20P header connector)
- CON 2 - external connections : To connect the card to a programming source (15P female D-connector)

Analog inputs / outputs: CV, CC programming and CV, CC monitoring

- Offset : ± 60 mV typical, ± 180 mV max.
- Full scale error : 0.1% calibrated.
- Non-linearity : 0.01% typical, 0.05 % max.
- Temperature coefficient : -65ppm typical
- Common mode rejection : 80 dB @ 50 Hz
- Voltage rage :
 - CON 1 : 0 - 5 V
 - CON 2 : 0 - 5 V or 0 - 10 V selectable
- Input impedance
 - CON 1 : 200 kW
 - CON 2 : 200 kW for 5 V input, 400 kW for 10 V input.
- Output impedance
 - CON 1 : 100 W / max. 4 mA
 - CON 2 : 1 W / max. 4 mA
- Reference voltage : 5.114 V $\pm$ 15 mV (Ro = 10W / max. 4 mA), TC = 20ppm/°C
- Auxiliary supply voltage : 11.4 - 12.7 V / Ri = 470 W

Digital status outputs : CV, LIM, OT, ACF, DCF

- Output voltage CON 2 : + 5 V / max. 2 mA
- Output impedance CON 2 : 5 W

Digital input : Remote shutdown

- Input voltage CON 2 : 3 - 15 V
- Input impedance CON 2 : 1.8 kW

General

- Capacitance input / case : 3.2nF
- Operating temperature : - 20 to + 50°C
- Storage temperature : - 40 to + 85 °C
- Humidity : max. 95% RH, non condensing, up to 40°C
- Isolation voltage : max. 75% RH, non condensing, up to 50°C
- Isolation test voltages : CON2 - CON1, 1000 VDC reinforced isolation acc. EN60950-1 / EN61010-1
- Minimum creepage distance : CON2 - Case 1000 VDC Basic isolation
- Minimum creepage distance : 4250 VDC
- Minimum creepage distance : 10 mm

Specifications are measured at an ambient temperature of 25 C $\pm$ 5 C unless otherwise noted.

Note1: The four analog channels are factory-calibrated within 0.1 % for 5 V input and output voltages. Selecting a 10 V input and/or output without re-calibrating can introduce an extra full scale error of 0.1 %. Offset, full scale error, non-linearity and temperature coefficient have to be added to the specifications of the power supply.

Note2: Reinforced isolation is available only when the ISO AMP is built inside a Delta Elektronika power supply.

Ordering information

Models	Order Code :
SM 800	P249
SM 1500	P218
SM 3000	P145
SM 6000	P154