



ISO AMP CARD

ISO AMP MODULE

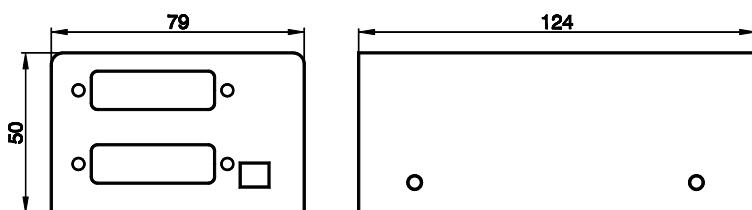
Four channel analog isolation amplifier



Features

- Built-in Card or External Module
- **Isolated programming** of voltage and current
- Galvanic isolation when programming and monitoring
- **Prevents** problems with **earth loops** and common mode voltages
- **Isolated logic inputs** and outputs
- Isolated monitoring of voltage and current
- Selectable 0 - 5 V or 0 - 10 V signal levels
- The external Module is pin compatible with the D15 connector on Delta Elektronika power supplies

Dimensions



Dimensions of the external ISO AMP Module.

Specifications

Analog inputs / outputs: CV, CC programming and CV, CC monitoring	
Offset	$\pm 60 \mu\text{V}$ typical, $\pm 180 \mu\text{V}$ max.
Full scale error	0.1 % calibrated.
Non-linearity	0.01 % typical, 0.05 % max.
Temperature coefficient	– 65 ppm typical.
Commonmode rejection	80 dB @ 50 Hz.
Voltage range: <i>connector 'to power supply':</i> <i>connector 'to prog. source':</i>	0 - 5 V 0 - 5 V or 0 - 10 V selectable
Input impedance: <i>connector 'to power supply':</i> <i>connector 'to prog. source':</i>	200 k Ω 200 k Ω for 5 V input, 400 k Ω for 10 V input
Output impedance: <i>connector 'to power supply':</i> <i>connector 'to prog. source':</i>	100 Ω / max. 4 mA 1 Ω / max. 4 mA
Reference voltage	5.114 V $\pm$ 15 mV ($R_o = 2 \Omega$ / max. 4 mA), TC = 20ppm/°C
Auxiliary supply voltage	12 V $\pm$ 0.5 V / $R_i = 470 \Omega$
Digital status outputs: CC, LIM, OT, ACF and DCF	
Output voltage: <i>connector 'to prog. source':</i>	+ 5 V / max. 2 mA
Output impedance: <i>connector 'to prog. source':</i>	5 Ω

Digital input: Remote Shut Down.	
Input voltage: <i>connector 'to prog. source':</i>	3 - 15 V
Input impedance: <i>connector 'to prog. source':</i>	1.8 k Ω
General	
Capacitance input / case	3.2 nF
Operating temperature	– 20 to + 50 °C
Storage temperature	– 40 to + 85 °C
Humidity	max. 95% RH, non condensing, up to 40 °C max. 75% RH, non condensing, up to 50 °C
Isolation voltage	Input-Output: 1000 VDC, Input-Case: 1000 VDC
Connections ISO AMP CARD	
15P female D-connector	To connect the card to a programming source.
20P header connector	To plug the card inside the power supply.
Connections ISO AMP MODULE	
Supply voltage	15 - 30 VDC, max 75 mA.
2 pole terminal block	To connect the external supply voltage.
15P female D-connector	To connect the module to a programming source.
15P male D-connector	To connect the module to the power supply.
<i>Specifications are measured at an ambient temperature of 25 °C $\pm$ 5 °C unless otherwise noted.</i>	

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.

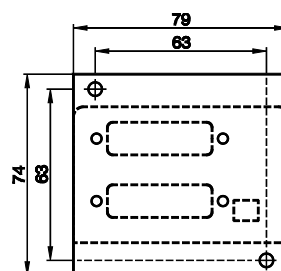
Ordering information

- For the following options the ISO AMP CARD is factory mounted, tested and calibrated in combination with the power supply:
order SM800 **OPTION P249**, SM1500 **OPTION P218**, SM3000 **OPTION P145** or SM6000 **OPTION P154**.
- Order **ISO AMP MODULE** for the external module.
The external module can be used in combination with all programmable Delta Elektronika power supplies.

Accessories

The following is supplied with the ISO AMP MODULE:

- Rail adapter for 35mm rail mounting
- Wall mounting adapter
- 0.6m cable with 15 pole D-connectors.



Dimensions wall mounting adapter