

# DSG 300

## Spectroscopy Amplifier



### FEATURES

- **Spectroscopy Amplifier Specially designed for HP Germanium Coaxial Detectors**
- **Can also be used for other detectors like NaI, proportional counters etc.**

### DESCRIPTION

The model DSG 300 is a high performance spectroscopy amplifier in a single wide NIM module.

This main amplifier is specially developed for LN-cooled HP Germanium coaxial detectors. But it gives also very good results in use with proportional counters .

The low noise level, the excellent DC-stability, also with high count rates and the very symmetric pulse shape, which is very near by the Gaussian shape, allows to use the DSG 300 for a wide range of applications with very satisfying results

Helpful are also three different time constants 4-, 8- and 12 usec peaking time (2, 4, 6 usec shaping time)

The LED-chain shows the condition of the detector pre - amplifier, so the user has more information about the status of the system (with DSG detectors only).

### Connectors and Indicators

#### Front panel:

**COARSE GAIN:** Six positions rotary switch selects gain factors from 10 to 500

**FINE GAIN:** Ten-turn precision potentiometer for fine setting of the amplifier gain.

**POS/NEG:** Frontpanel switch to choose the Input polarity

**DETECTOR:** LED- chain shows the condition of the detector pre-amplifier, ex. "Normal" / "High count rate" / "Detector has leakage current".

**P/Z:** Potentiometer to adjust the Pole

**Zero Input:** Signal input (BNC connector)

**Output:** Signal output (BNC connector) unipolar

#### Rearpanel:

**Input:** Signal input (BNC connector)

**Output:** Signal output (BNC connector) unipolar

**Preamp:** current supply for preamplifier  $\pm 12\text{ V} / \pm 24\text{ V}$

#### Physical

**Size:** single width NIM module (1.35 x 871 inches; 3.43 x 22.13 cm) as per TID - 20893 (rev.)

**Shipping weight:** 1.2 kg (net 0.8 kg)



DSG300 22112006