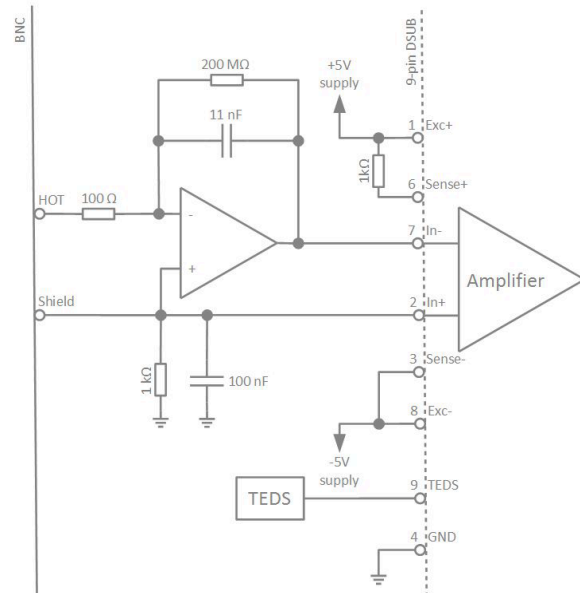


2.9. DSI-CHG-50

The DSI-CHG adapter can be used for charge sensors up to 50,000 pC with Dewesoft devices.



DSI-CHG-50



Basic circuit design of DSI-CHG-50



Important

In operation with the isolated SIRIUSi modules you will get a fully isolated charge amplifier. In operation with differential modules (SIRIUS®, Krypton®, DEWE-43, IOLITE) the input configuration is single-ended.

2.9.1. DSI-CHG-50 Specifications

Inputs specifications	
Sensor connector	BNC
Supported sensors	Charge sensors
Accuracy	0.5 %
Gain drift	100 ppm/°C
Supply voltage	±5 V (±1 %)
Power consumption	max. 100 mW
Input configuration	Isolated (max. 350 VDC) when using with isolated SIRIUSi modules, else single-ended
Bandwidth	0.07 Hz up to 300 kHz (limited by bandwidth of host amplifier)
Low-pass filter	10 Hz to 100 kHz (depending on host amplifier)
Range	1,000 / 10,000 / 50,000 pC (SIRIUS-HS series offers more ranges)
Typ. SNR @ 30 kHz bandwidth	up to 125 dB (limited by the SNR of the host amplifier)
Max. offset	20 pC (compensated in DEWESoft® by software filter)
High-pass filter	0.07 Hz, 1 Hz, 10 Hz
Amplifier settings	Automatically selected by software - Measurement: Voltage - Range: ±0.1 to ±10 V - Excitation: 10 V



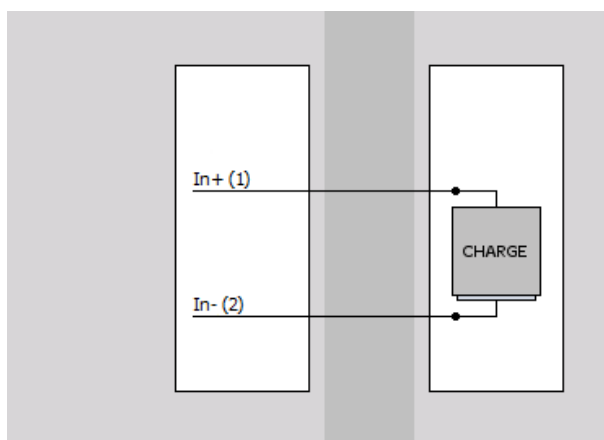
Important

Additionally to HW high-pass filter (HPF), a SW IIR filter Butterworth 2nd order is applied. Its cut-off frequency is 1/10 of the cut-off frequency of the HW HPF filter.

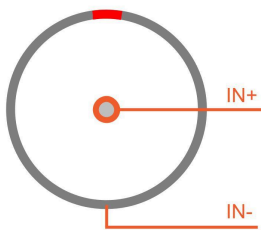
Example:

DSI-CHG-50 has additional SW filter, Butterworth, 2nd order HPF, $f_c = 0.007$ Hz.

2.9.2. DSI-CHG-50 Input Connection



2.9.3. DSI-CHG-50 connector pinout



DSI-CHG-50 connector: pin-out (BNC)

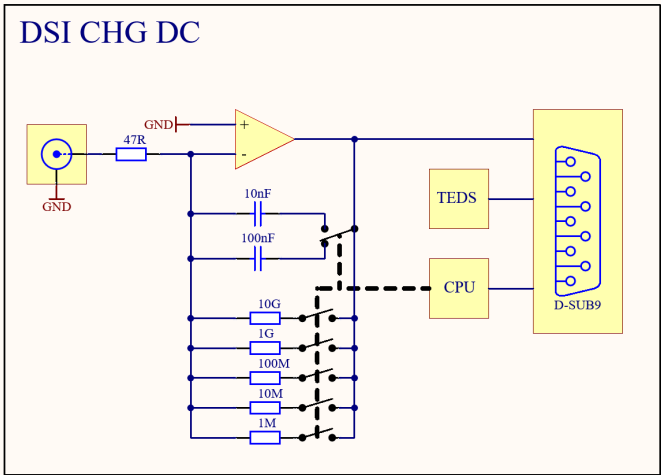
Pin	Description
1	In+
2	In-

2.10. DSI-CHG-DC

The DSI-CHG-DC adapter can be used for charge sensors up to 50,000 pC with Dewesoft devices.



DSI-CHG-DC



Important
If the adapter is not recognized on some amplifiers (SIRIUS-STG), set Excitation to more than 0 V.