

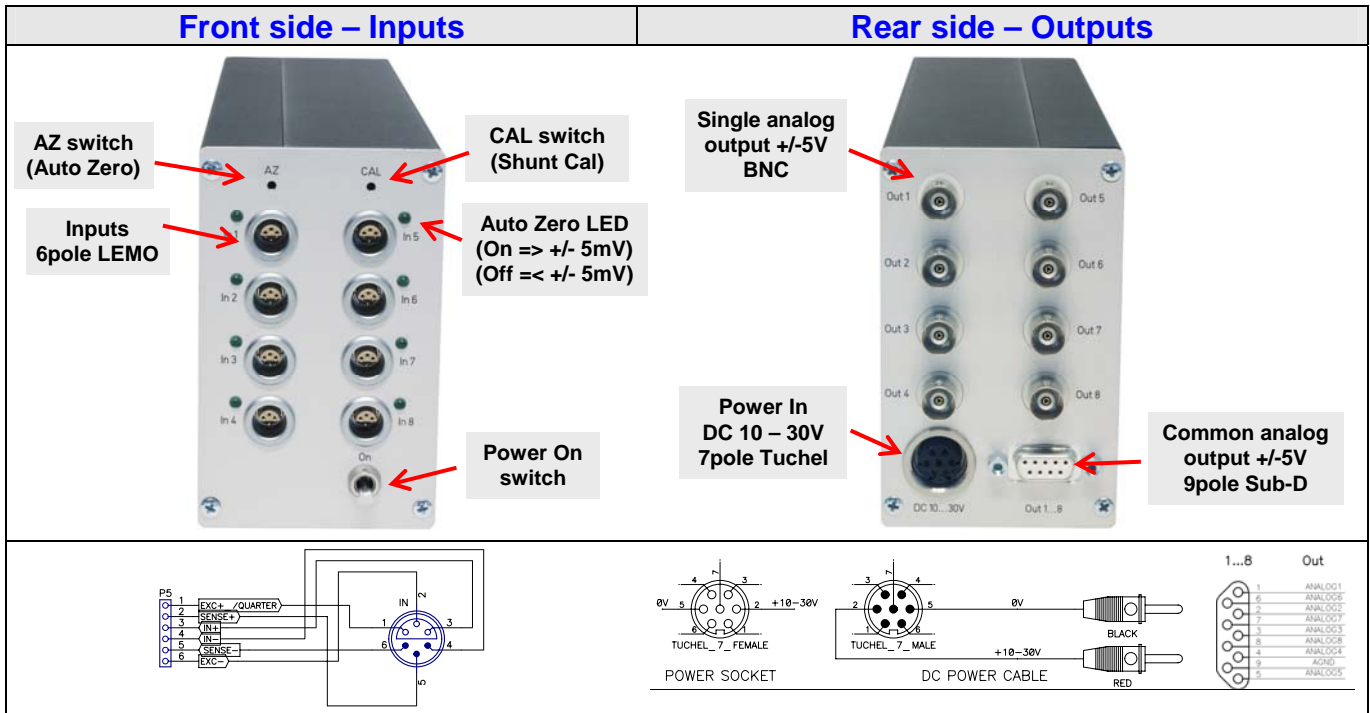
## SC-8


### 8-channel sensor amplifier

Signal conditioning for STG, LVDT, TH-K,  
F/V, ICP, CURRENT, FILTER ...



- STG offset via Auto Zero calibration
- Full-, half- or quarter-bridges
- Gain 3 ranges 10, 100 or 1000 (other gain on request)
- Bridge excitation 4V or 8V
- Jumper programmable
- Mixed installation practicable
- Output +/-5V via BNC
- STG and IPC can be combined with a low pass filter (10Hz to 7,5kHz)
- Compact and rugged design
- Powering 10 - 30V DC



To measure:	Module	Description	Characteristics
Force, pressure, strain, torsion, material stress	<b>STG</b>	Strain gauges 	<ul style="list-style-type: none"> <li>Full, half, quarter bridges in 2- and 3-wire technique (120Ω, 350Ω, 1kΩ)</li> <li>Settable gain (2, 10, 100, 1000)</li> <li>Settable bridge supply (4V, 8V)</li> <li>Auto-zeroing</li> <li>Additive 5kHz fixed filter (2pol. Butterworth)</li> </ul>
Distance	<b>LVDT</b>	Inductive distance sensor	<ul style="list-style-type: none"> <li>Settable gain (1, 2, 5, 10)</li> <li>Sensor supply 5kHz, ±5V</li> <li>Auto-zeroing</li> </ul>
Frequency, speed by pulse frequency	<b>F/V</b>	Frequency-to-voltage converter	<ul style="list-style-type: none"> <li>Settable maximum frequency (500Hz, 2.5kHz, 10kHz)</li> <li>Minimum frequency 40Hz</li> <li>Signal amplitude 0.3-10V</li> <li>Square, sine and triangle wave forms</li> <li>10Hz output filter (2pol. Butterworth)</li> </ul>
Acceleration, oscillation, vibrations, acoustic	<b>ACC</b>	Acceleration sensor based on STG	<ul style="list-style-type: none"> <li>all common sensors</li> </ul>
	<b>CAP</b>	Capacitance accelerometer	<ul style="list-style-type: none"> <li>Measuring ranges ±3g, ±10g, ±50g</li> <li>Shock resistance 10.000g</li> <li>Frequency ranges 0-160Hz (±3g), 0-350Hz(±10g), 0-550Hz (±50g)</li> </ul>
	<b>ICP</b>	Piezoelectric accelerometer and microphones	<ul style="list-style-type: none"> <li>Excitation current 1mA, 2mA, 4mA, 20mA (optional others)</li> <li>Excitation voltage 30V</li> <li>Gains 0.5, 1, 2, 4, 8, 16, 32 (optional others)</li> <li>Signal bandwidth 5-16000Hz</li> </ul>
Temperature	<b>THERMO</b>	Thermo wires Type J, K (T)	<ul style="list-style-type: none"> <li>Measuring range from -20°C up to +500°C</li> <li>Gain 10mV/°C</li> <li>Internal cold junction compensation</li> <li>Optional galvanic isolation with integrated ISO module</li> </ul>
	<b>Pt100</b>	Thermo resistors from Pt100 / Pt1000	<ul style="list-style-type: none"> <li>Measuring range from -20°C up to +500°C Gain 7.7mV/°C</li> <li>Excitations 0.25, 0.5, 0.75, 1mA for Pt100</li> <li>Optional galvanic isolation with integrated ISO module</li> </ul>
Galvanic isolated voltage	<b>ISO</b>	Isolation amplifier	<ul style="list-style-type: none"> <li>Additive isolated sensor excitation</li> <li>Input ±10V</li> <li>Optional 4Hz fixed filter (4pol. Butterworth)</li> </ul>
Voltage	<b>VOLT</b>	No signal conditioning	<ul style="list-style-type: none"> <li>Input ±2.5V, ±5V (default), ±10V, ±15V, ±20V, ±25V</li> <li>Auto-zeroing up to ±250mV</li> <li>Input resistance &gt;100kΩ (depends on range)</li> <li>Optional bridge excitation ±15V</li> </ul>
	<b>FILTER</b>	Optional filter for all modules	<ul style="list-style-type: none"> <li>8<sup>th</sup> order elliptical or linear phase frequency response, more than 2000 cut off frequencies from 10Hz to 7,5kHz available (reciprocal scaling)</li> </ul>