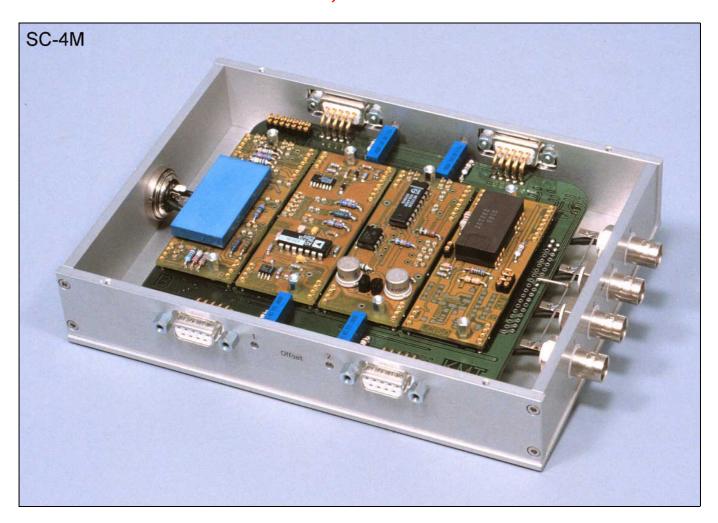
## Kraus Messtechnik GmbH

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## SC-4/M

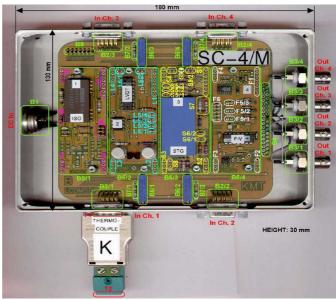
4 channel <u>low cost</u> signal conditioning unit, mixed installation practicable with modules such as Straingauges, LVDT, ICP. Thermo couples, F/V, Filter ...



- Signal conditioning for STG, LVDT, ACC, F/V converter, Thermo couples, Filter, ICP ....
- Easy handling
- Mixed installation practicable, 1 up to 4 modules
- Jumper selectable gain for STG, ICP and LVDT

- STG excitation 4 or 8 V
- Full-, half- or quarter-bridges
- Power input of 9-18 or 18-32 VDC
- Size 130x180x35 mm
- Weight 900g





Basic housing with motherboard for max. 4 signal conditioning modules

## Signal conditioning modules for:

To measure:	Module	Description	Characteristics
Force, pressure, strain, torsion, material stress	STG	Strain gauges	<ul> <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	LVDT	Inductive distance sensor	<ul> <li>Settable gain (1, 2, 5, 10)</li> <li>Sensor supply 5kHz, ±5V</li> <li>Auto-zeroing</li> </ul>
Frequency, speed by pulse frequency	F/V	Frequency-to-voltage converter	<ul> <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	ACC	Acceleration sensor based on STG	all common sensors
	CAP	Capacitance accelerometer	<ul> <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>
	ICP	Piezoelectric accelerometer and microphones	<ul> <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	THERMO	Thermo wires Type J, K (T)	<ul> <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>
	Pt100	Thermo resistors from Pt100 / Pt1000	<ul> <li>Measuring range from -20°C up to +500°C (best linear performance from 0°C to 100°C)</li> <li>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	ISO	Isolation amplifier	<ul> <li>Additive isolated sensor excitation</li> <li>Input ±10V</li> <li>Optional 4Hz fixed filter (4pol. Butterworth)</li> </ul>
Current	CUR	Current-to-voltage converter	<ul> <li>Input current ±25mA</li> <li>Input impedance 100Ω</li> <li>Optional bridge excitation ±15V</li> </ul>
Voltage	VOLT	No signal conditioning	<ul> <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>
	FILTER	Optional filter for all modules	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)