SCHLAEPFER
Sensors Ltd

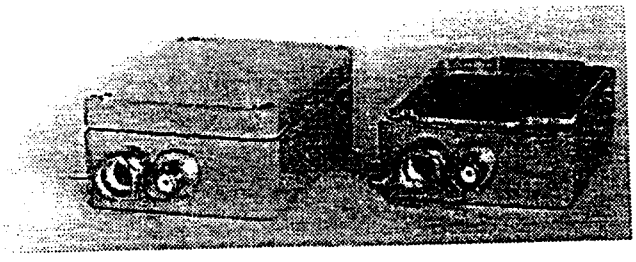
Charge Amplifier Type LV 400

SWISS MADE

V/pC Amp LV

Applications

- *Robots*
- *Injection Molding Machines*
- *Process Monitoring*
- *Anywhere in Industrial Environment where Piezoelectric Signals occur*
- *Direct at the machine*



The charge amplifier converts the electric charge emitted by piezoelectric sensors into a proportional voltage (or optionally current). The charge can either come from a piezo-quarz,- ceramic,- or polymer.

The LV 400 was specially developed for applications in industrial environments. For instance, the LV 300 is moisture and vibration proof. This has been achieved without compromising accuracy. To the contrary: Performance data that up to now were not believed practically possible could be achieved by employing the newest electronic components.

Features

- *Eliminates Transient Voltages up to 5V*
- *Semi Conductor Reset, thus Vibration Proof*
- *Alarm Threshold, Adjustable either Internally or Externally*
- *Peak Memory*
- *Protected Inputs and Outputs*
- *Power Supply: 15...32V Unconditioned*
- *SMD Execution Possible*
- *Extremely Low Drift Due to Newest Electronic Components integrated*
- *Options:*
  -Test Charge (Selftest)
  -Output Signal 4...20mA
- *Very Attractive Price*

Thanks to the innovative semi conductor reset moving parts(such as reed relais) are eliminated, thus guaranteeing a virtually unlimited service life. In addition, an accidential reset, caused for instance by shock or vibration, which could interrupt the measurement during a process and lead to serious damage of the machine will no longer occur.

The alarmthreshold can be set very easily: 8V at the alarm-level input will set the threshold to 80% of full scale.
It's that simple!

On top of the impressive features the extremely attractive price deserves special attention. This has been made possible by careful and cost conscientious selection of the individual components.

In larger quantities options can be realized on short notice.

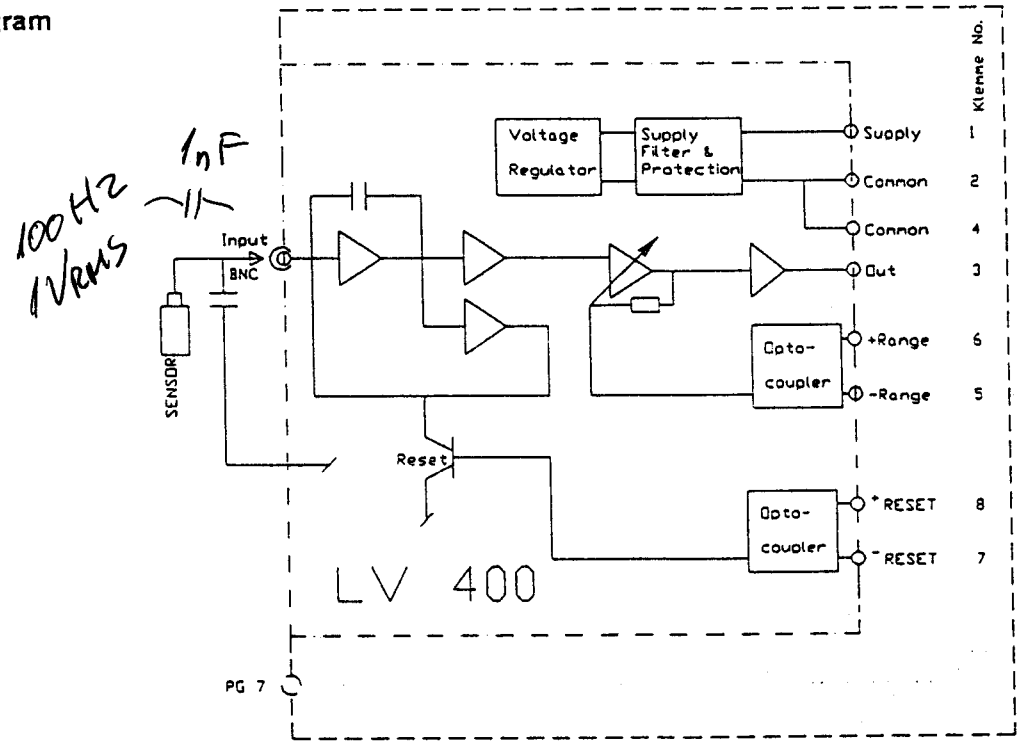
Challenge our flexibility!

SCHLAEPFER SENSORS Ltd., P.O. Box 208, CH-8406 Winterthur, Switzerland, Tel. 052-202 20 40, Fax 052-202 20 52

Technical Data

Measuring range, standard	20'000	pC	Common mode rejection (CMR)		
(indicate range in order form)			- 24V Power supply	+/-5	V
Output voltage			- 15V Power supply	+/-3	V
- Instant value	10	V	CMRR (40dB)	< 1	%
- Peak memory	+/-10	V	Operating temperature range	-20...70	°C
- Drift of peak memory	< 10	mV/min.	Reset/Operate (active High)		
- Max. value	+/-10	V	- Control voltage, AC or DC	10...24	V
Output impedance	< 10	Ohm	(min. 100msec)		
Output shunt	> 10'000	Ohm	- Testing voltage	1.5	kV
Time constant	> 50'000	sec.	Alarm Level, external setting		
Zero-Offset	< 1	mV	- Max. voltage	10	V
Accuracy	< 0.5	%	- Input impedance	100	Ohm
Frequency range (-2%)	0...10	kHz	Relais outputs	250/2	V/A
max.Drift at 25 °C	< 0.1	pC/sec.	- Testing voltage	1.5	kV
at 50 °C	< 1	pC/sec.	Connectors		
typ. Drift at 25 °C	< 0.01	pC/sec.	- Signal Input (Sensor)	BNC neg	
Power supply	15...35	V	- all other In/Outputs	Screw Terminal	
Current, max.	18	mA	Weight	280	g

Block diagram

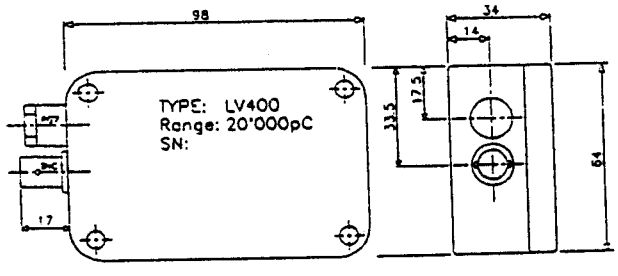


Ordering-Information

Standard	LV400/20'000pC
- with peak memory active	LV 400P/20'000pC
(peak memory already connected to output)	
- without relais	LV 400R/20'000pC
- with TNC Signal Input	LV400/20'000pC/TNC

Other options are available at any time on short notice.
Please contact us.
The measuring range can be increased up to 100'000pC, specify non-standard ranges.
These charge amplifiers are OEM-Products. Single units are available for test purposes only.

Dimensions (mm)



LV 400./....., Standardprint in light steel case, black.
Mounted direct at the machine.

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