



## Measuring amplifier LP12.1 and LP22

for all tensile force measuring devices,  
Torque and force measurements



- LP12.1** : 1-channel design for one-sided measurement  
**LP22** : 2-channel design for two-sided measurement

The measuring chain consists of the electronic measuring amplifier and the mechanical force measurement to capture tensile or compressive forces or for the torque measurement.

The amplifier is executed as Eurocard with front panel type 3U / 14HP .

### Options:

- tension controller Z2: PID-controller for tension/ pressure/ dancer control
- data logger via parallel port
- EMC-protective housing (IP20) for mounting on DIN-rail

### Technical data:

bridge resistance	120...800 $\Omega$
bridge supply	5VDC
temperature influence on bridge supply	< 0,005 % / K
sensitivity	1mV... 0,1V adjustable
appropriate amplification	500....10.000
low-pass filter 5th order, cutoff frequency 5Hz	selectable
input resistance	1 M $\Omega$
null drift (at V=1000)	< 1,8 mV/K
total drift (at V=1000)	< 2 mV/K
linearity error	< 0,1 %
measuring frequency area	0...5Hz with filter, 0...20Hz without filter
output for indicating instrument	1 mA measuring instrument
voltage output 0...10VDC	load resistance R > 1 k $\Omega$
impressed current output 0(4)...20mA	load resistance R < 500 $\Omega$
zero suppression	15 mV
mains supply	230 V, 50/60 Hz $\Delta V$ +/-10% / Option: 24 VDC
input power	max. 4.5 VA
protection type	IP00
design	19" plug-in card, 3U / 14HP
connection via plug socket	32-pole a+c acc. to DIN 41612 Type C