

MC-KP LVDT & RVDT Amplifiers

Single Channel LVDT/RVDT Amplifier

- Supply voltage 10 ... 18 VDC / 18 ... 30 VDC
- Analogue output 0 ... 10 V / ± 10 V / 4 ... 20 mA
- Plastic enclosure for DIN-top hat rail mounting (IP20)
- Dimensions (W x H x D) 23 x 99 x 115 mm



The LVDT measuring amplifier MC-KP for DIN top-hat-rail mounting offers supply and signal evaluation for LVDT transducers and gage head transmitters with an oscillator frequency between 1 kHz and 20 kHz. By use of multiple LVDT measuring amplifiers an oscillator voltage synchronization is possible. For further evaluation standard analogue outputs are available.

The amplification can be adjusted by an internal DIP switch.

The potentiometers Z (Zero) and G (Gain) accessible via the enclosure lid allow a calibration correction.

Specifications

Number of measuring channels:	1
Supply voltage:	10 ... 18 VDC, 18 ... 30 VDC, electronics with reversal voltage protection
Isolating proof voltage input to output:	200 V, higher isolated proof voltage on request
Power consumption:	max. 3 W
LVDT/RVDT oscillator voltage	2.2 VAC, oscillator voltages between 2 to 5 VAC on request
Oscillator frequency:	4.8 kHz (± 5 %), 10 kHz (± 5 %), other oscillator frequencies on request
LVDT/RVDT transducer primary impedance:	>160 Ω
Analogue output	0 ... 10 V / ± 10 V, max. 1 mA (short-period short-circuit proof) 4 ... 20 mA, max. 500 Ω
Limit frequency (-3 dB):	Oscillator frequency/10
Amplification range:	4 ... 27 adjustable with DIP switch
Non-linearity demodulator:	± 0.05 % FSO
Temperature failure:	25 ppm/K (typ.)
Electrical connection:	Pluggable screw clamps
Enclosure:	Plastic enclosure for top hat rail mounting (IP20)
Dimensions (B x H x D):	23 x 99 x 115 mm
Weight:	150 g
Temperature, storage:	-20 ... +60 °C
Temperature, operating:	0 ... +50 °C

Order Description

MC-KP...	Single channel LVDT/RVDT-amplifier in plastic enclosure for DIN-top hat rail mounting (IP20)
...-12E-...	Supply voltage: 10 ... 18 VDC
...-24E-...	Supply voltage: 18 ... 30 VDC
...-010-...	Analogue output: 0 ... 10 V
...-B10-...	Analogue output: ±10 V
...-420-...	Analogue output: 0 ... 10 V and 4 ... 20 mA
... no declaration	Oscillator voltage /-frequency 2.2 VAC/4.8 kHz
...-10K-...	Oscillator voltage /-frequency 2.2 VAC/10 kHz
... Slave	Oscillator deactivated, excitation occurs about MASTER-amplifier

Terminal Wiring

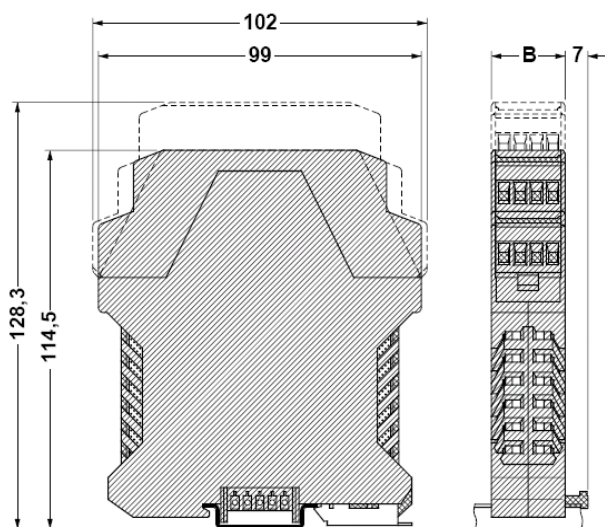
Electrical connections are made via screw clamps located on the front and the back of the enclosure. The maximum cable cross section is 2.5 mm². The maximum interference immunity is achieved with direct connecting of the cable screen with "clean" and "low resistant" protective ground (PG). A lengthening of the cable screen with a cable makes the interference immunity considerably worse. The cable screen connection must occur directly by a cable clamp. If a connection with protective ground (PG) isn't possible, the cable screen can be connected to clamp 15 (Analogue ground/screen). Anyhow enough interference immunity has to be ensured.

PIN	Description
1	Supply voltage
2	Supply ground
3	Supply ground
4	PG (internal connection to the DIN top hat rail)
5	Not connected (midpoint LVDT)
6	Analogue ground
7	Analogue ground
8	Analogue output

PIN	Description
9	Oscillator voltage LVDT/RVDT
10	Oscillator voltage LVDT/RVDT
11	+ Signal LVDT/RVDT
12	- Signal LVDT/RVDT
13	Option synchronization +IN
14	Option synchronization -IN
15	Analogue ground
16	Analogue ground

Notice: Connection of the clamps 13 and 14 only with Version SLAVE (Synchronization about MASTER)

Enclosure Dimensions



Alignment / Calibration

If requested, a pre-setting of the measuring system or a factory calibration certificate with traceable references can be carried out for an extra charge.

Customized Requirements

Technical modifications according to customized requirements are available on request. Moreover, we deliver customized solutions for a lot of measuring tasks in the sections pressure, force, distance, and tilt measuring using our measuring transducers. Do not hesitate to contact us.