



MC-KP-12E/24E-xxx

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)**
- ▶ **Dimension (B x H x D) 23 x 99 x 115 mm**



The present LVDT-Measuring amplifier for DIN-top-hat-rail mounting allows the supply and signal evaluation of a LVDT-Transducer/Gage head transmitter with an oscillator frequency in the area of 1 kHz ... 20 kHz. By use of multiple LVDT-Measuring amplifiers, it is possible to synchronize the oscillator voltage. For further evaluation are standard analogue outputs available.

The amplification can be adapted by an internal DIP-Switch.

The potentiometer Z (Zero) and G (Gain), which are accessible above the enclosure lid, allow a correction of the calibration.

▶ Technical Data

Number of measuring channels:	1	
Supply voltage:	10 ... 18 VDC 18 ... 30 VDC	Electronic protected against voltage reversal
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 voltage in the area of 2 ... 5 VAC possible on request
Oscillator frequency	4,8 kHz (±5 %) 10 kHz [±5 %]	Other oscillator frequency possible on request
LVDT/RVDT-Transducer Primary Impedance:	>160 Ohm	
Analogue output	0 ... 10 V / ±10 V 4 ... 20 mA	max. 1 mA (short-period short-circuit proof) max. 500 Ω
Limit frequency (-3 dB):	Oscillator frequency / 10	
Amplification range:	4 ... 27 einstellbar per DIP-Schalter	
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)	
Dimension (B x H x D):	23 x 99 x 115 mm	
Weight:	150 g	
Temperature, storage:	-20 °C ... +60 °C	
Temperature, operating:	0 °C ... +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 frontside and the backside of the enclosure. The terminal numbering is to be found beyond and below the screw clamps. The maximum cable cross section amounts 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 connection of the cable screen should occur directly with a cable clamp.

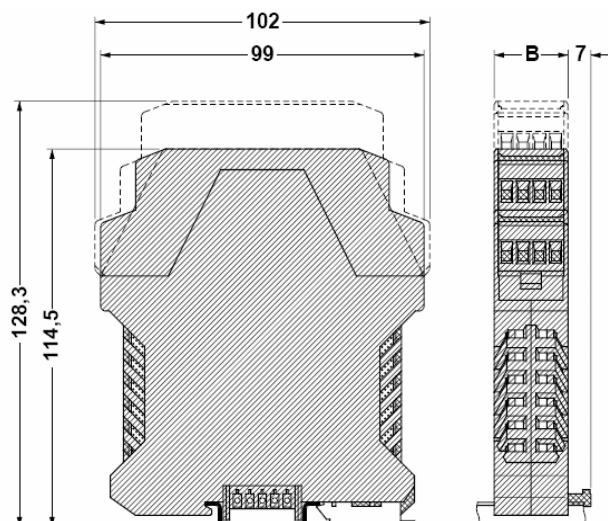
If no connecting with protective ground (PG) should be possible, the cable screen can be connected to clamp 15 (Analogue ground/Screen). Anyhow, enough interference immunity is to be ensured.

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 Dimension



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 modification according customized requirement are possible on request. Moreover, we deliver Customized special solutions for a lot of measuring tasks in the section pressure-, force-, distance - and tilt-measuring using our offered measuring transducer. Do not hesitate to contact us.

Our policy is to improve specification of our products continuously, so technical and production details can be changed without any notice.