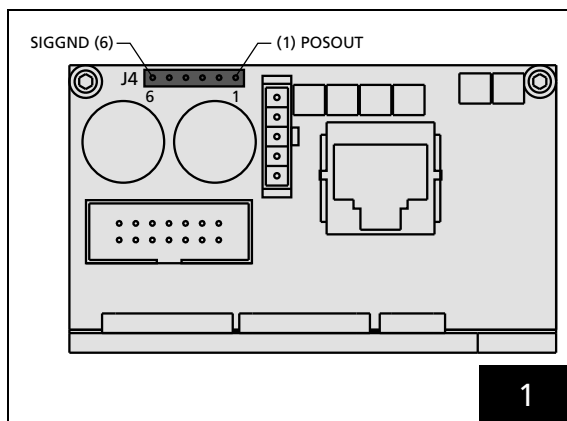


## miniSSV Amplifier Board EXTENSION connector

The J4 EXTENSION connector (6-pin, single-row, 2.54-mm pitch, e.g. TE Connectivity 87220-6) serves to access several measuring signals. Figure 1 shows the position of the J4 EXTENSION connector on the miniSSV Amplifier Board. A description of the signals can be found in the following table.



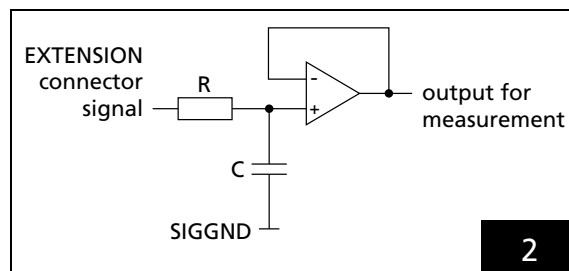
Pin 1	POSOUT position signal (real value) Output voltage: $-5\text{ V} \dots +5\text{ V}$ (100% full scale)
Pin 2	POSERR position error ( $1.5 \times (\text{inverted set value} - \text{real value})$ ) Output voltage: max. $-10\text{ V} \dots +10\text{ V}$ (dependent on the exact circuit board design) With large POSERR values limitation, i.e. deviation from the above formula, may occur.
Pin 3	BUFIN set signal after input amplifier ( $2 \times \text{set value}$ , inverted, slew rate limited) Output voltage: $-10\text{ V} \dots +10\text{ V}$ (100% full scale)
Pin 4	do not connect
Pin 5	DRVOUT drive out signal (galvo current) Output voltage: Calibration details on request
Pin 6	SIGGND signal ground

The signals are neither buffered nor protected. They come directly from the control loop. Therefore they have to be tapped with high impedance.

Figure 2 shows a suggestion for a circuit for decoupling a signal (with 1st order low-pass filter) e.g. for a subsequent measurement. The circuit should be placed as close as possible to the miniSSV and the connecting cables should be kept as short as possible. Care should be taken to avoid coupling EM interference.

Notes:

- The resistance R should be at least 3.3 kOhm.
- The calibration of the scan system refers to 96% of full scale (for the calibration angle, please refer to the scan system manual).

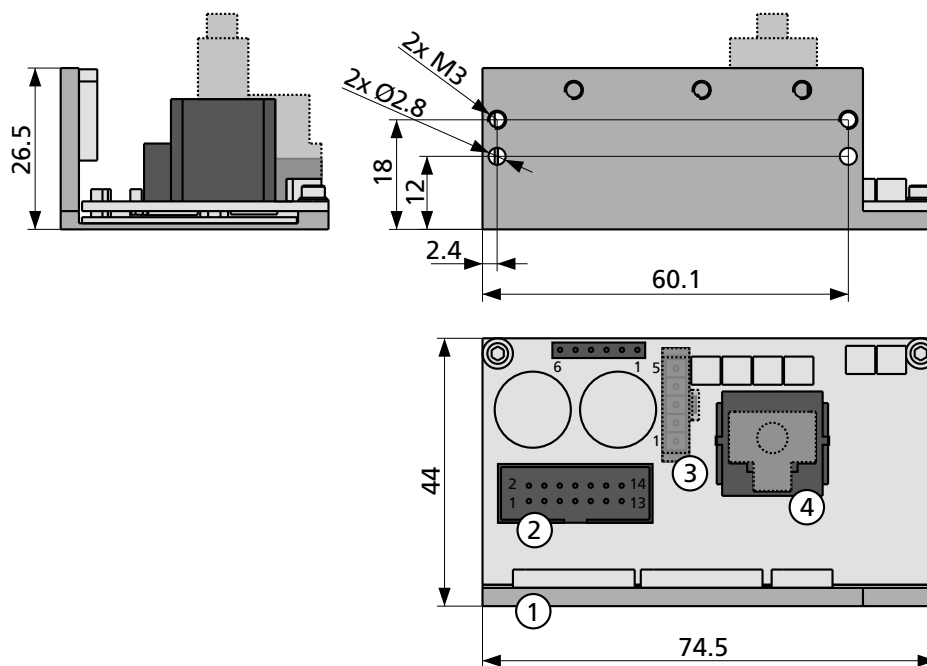


### Caution!

- Incorrect tapping of signals at the EXTENSION connector (e.g. tapping with too low impedance, producing short circuits or coupling interference signals) may cause incorrect or unstable positioning of the galvanometer scanners and even irreversible damage to the scan system.

## miniSSV Amplifier Board Dimensions

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### Legend

- 1 Angle plate
  - 2 ANALOG & POWER IN connector for power supply and data transfer
  - 3+4 Scanner connectors
- (all dimensions in mm)