

Table 1-2: Referenced documents

MHM-97877	Operating Manual A6500-xR System Rack
MHM-97416	Operating Manual A6120 Bearing Vibration Monitor

1.2 Symbols

Note

This symbol marks passages that contain important information.

⚠ CAUTION

This symbol marks operations that can lead to malfunctions or faulty measurements, but will not damage the device.

⚠ DANGER

A danger indicates actions that can lead to property damage or personal injury.



According to IEC 61010, this symbol means that the documentation of the device must completely be read and understood before installing and commissioning of the device. Observe all safety related instructions in this document.

1.3 Liability and guarantee

Emerson is not liable for damages that occur due to improper use. Proper use also includes the knowledge of, and compliance with, this document.

Customer changes to the device that have not been expressly approved by Emerson will result in the loss of guarantee.

Due to continuous research and further development, Emerson reserves the right to change technical specifications without notice.

1.4 Incoming goods inspection

Check the content of the shipment to ensure that it is complete; visibly inspect the goods to determine if the device has been damaged during transport. The following parts are included in the scope of delivery and must be contained in the shipment.

- Absolute Vibration Transducer PR 9268
- Harting socket including female contact strip, housing, and cover (only transducers with Harting plug)
- Plastic bag with screws M6x20, washers, and cable gland M20 (only PR 9268/60x-000 and PR 9268/70x-000)
- Mounting bolt M10x1 to M6 (only PR 9268/01x-x00)

connector. For further information see sensor connection chapters in the manuals of the respective protection cards (for example, A6120 or A6500-SR).

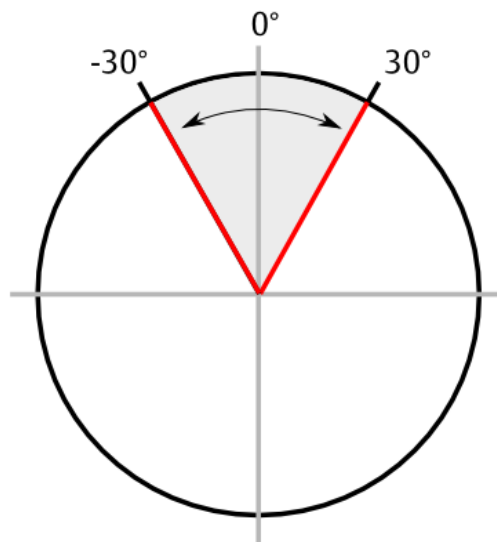
⚠ CAUTION

To ensure proper measuring function, install the transducer only within the described mounting angle ranges.

4.3.1 PR 9268/20x-x00 and PR 9268/60x-000 – without sinking current

The vibration transducers PR 9268/20x-x00 and PR 9268/60x-000 are designed for the vertical measurement direction (0° position). Without a sinking current, the maximum admissible deviation from the nominal position is $\pm 30^\circ$ in positive and negative direction. See [Figure 4-12](#).

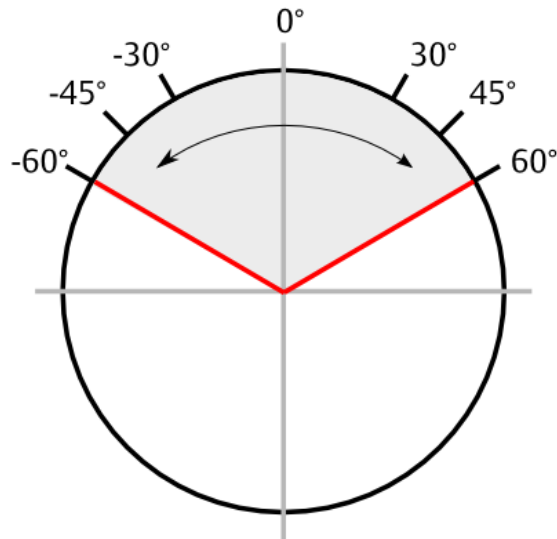
Figure 4-12: Deviation of $\pm 30^\circ$ from the nominal direction



4.3.2 PR 9268/20x-x00 and PR 9268/60x-000 – with sinking current

The vibration transducers PR 9268/20x-x00 and PR 9268/60x-000 are designed for the vertical measurement direction (0° position). They can be used with a maximum deviation of $\pm 60^\circ$ in positive and in negative direction (related to the nominal direction 0°). See [Figure 4-13](#).

Figure 4-13: Deviation of $\pm 60^\circ$ from the nominal direction



If the transducer is mounted in a position between -30° and -60° or $+30^\circ$ and $+60^\circ$, a sinking current is necessary to lower the seismic mass of the transducer to the middle of the working range. Define the required sinking current in the configuration of the used protection card (for example, A6120 or A6500-UM). The specified maximum sinking current for the PR 9268/20x-x00 is approximately 3.6 mA and for the PR 9268/60x-000 approximately 2.0 mA. These value are automatically used in the configuration when selecting the PR9268/20x-x00 or PR 9268/60x-000 from the sensor list of the configuration software. The configuration software calculates and sets the necessary lifting current in relation to measuring direction and mounting angle. See [Table 4-6](#) for some examples.

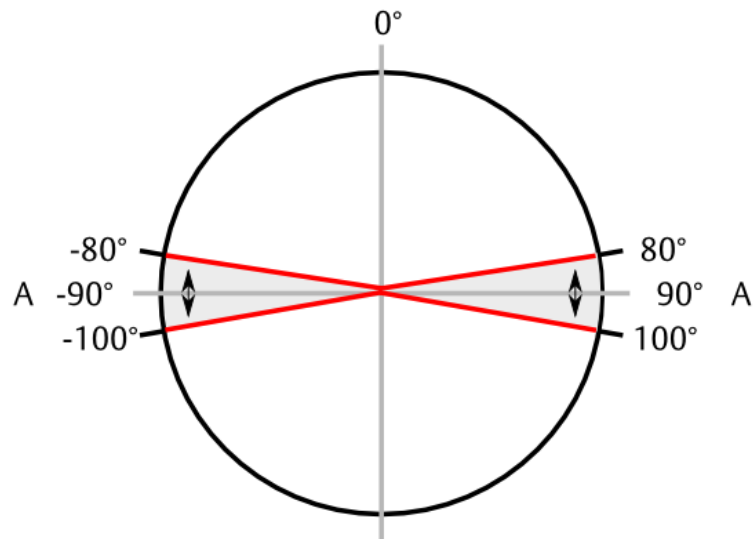
Table 4-6: Angle deviations and resulting sinking currents

Angle deviation	Sinking current	
	PR9268/20x-x00	PR 9268/60x-000
$\pm 30^\circ$	0.48 mA	0.27 mA
$\pm 45^\circ$	1.05 mA	0.59 mA
$\pm 60^\circ$	1.8 mA	1.0 mA

4.3.3 PR 9268/30x-x00 and PR 9268/70x-000 – without lifting/sinking current

The vibration transducers PR 9268/30x-x00 and PR 9268/70x-000 are designed for the horizontal measurement direction (90° position). Without a lifting/sinking current, the maximum admissible deviation from the nominal position is $\pm 10^\circ$ in positive and negative direction. See [Figure 4-14](#).

Figure 4-14: Deviation of $\pm 10^\circ$ from the nominal direction



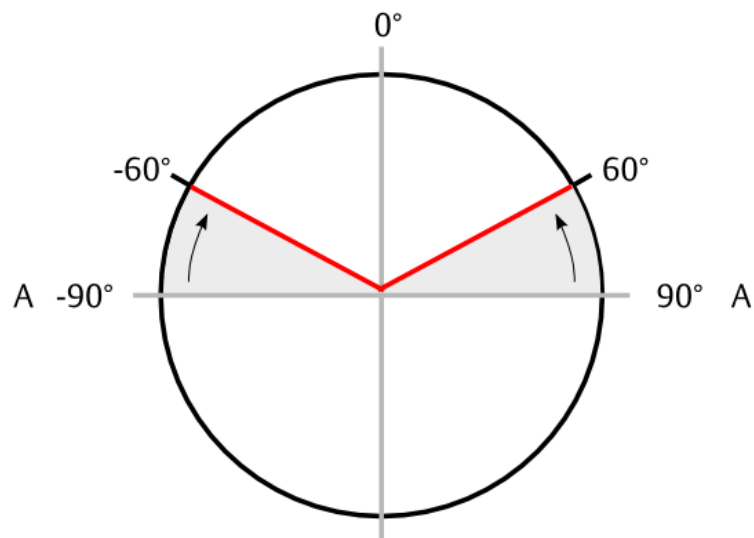
A. Nominal position

4.3.4

PR 9268/30x-x00 and PR 9268/70x-000 – with lifting current

The vibration transducers PR 9268/30x-x00 and PR 9268/70x-000 are designed for the horizontal measurement direction (90° position). They can be used with a maximum deviation of -30° (related to the nominal direction 90°). See [Figure 4-15](#).

Figure 4-15: Deviation of -30° from the nominal direction



A. Nominal position

If the transducer is mounted in a position between -80° and -60° or 60° and 80° a lifting current is necessary to raise the seismic mass of the transducer to the middle of the working range. Define the required lifting current in the configuration of the used protection card (for example, A6120 or A6500-UM). The specified maximum lifting current for the PR 9268/30x-x00 is approximately 3.6 mA and for the PR 9268/70x-000 approximately 2.0 mA. These value are automatically used in the configuration when selecting the PR9268/30x-x00 or PR9268/70x-000 from the sensor list of the configuration software. The configuration software calculates and sets the necessary lifting current in relation to measuring direction and mounting angle. See [Table 4-7](#) for some examples.

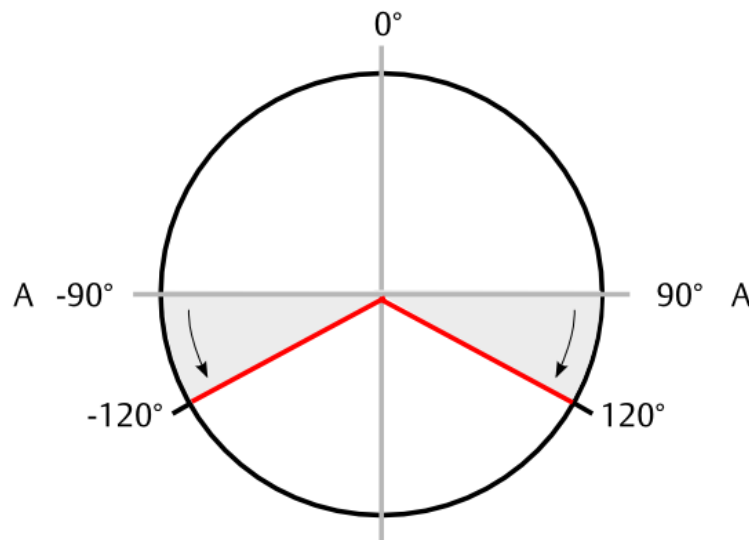
Table 4-7: Angle deviations and resulting lifting currents

Angle deviation	lifting current	
	PR9268/30x-x00	PR 9268/70x-000
$\pm 80^\circ$	0.63 mA	0.35 mA
$\pm 70^\circ$	1.23	0.68 mA
$\pm 60^\circ$	1.8 mA	1.0 mA

4.3.5 PR 9268/30x-x00 and PR 9268/70x-000 – with sinking current

The vibration transducers PR 9268/30x-x00 and PR 9268/70x-000 are designed for the horizontal measurement direction (90° position). They can be used with a maximum deviation of $+30^\circ$ (related to the nominal direction 90°). See [Figure 4-16](#).

Figure 4-16: Deviation of $+30^\circ$ from the nominal direction



A. Nominal position

If the transducer is mounted in a position between -100° and -120° or 100° and 120° a sinking current is necessary to lower the seismic mass of the transducer to the middle of the working range. Define the required sinking current in the configuration of the used

protection card (for example, A6120 or A6500-UM). The specified maximum sinking current for the PR 9268/30x-x00 is approximately 3.6 mA and for the PR 9268/70x-000 approximately 2.0 mA. These values are automatically used in the configuration when selecting the PR9268/30x-x00 or PR 9268/70x-000 from the sensor list of the configuration software. The configuration software calculates and sets the necessary sinking current in relation to measuring direction and mounting angle. See [Table 4-8](#) for some examples.

Table 4-8: Angle deviations and resulting sinking currents

Angle deviation	Sinking current	
	PR9268/30x-x00	PR 9268/70x-000
±100°	0.63 mA	0.35 mA
±110°	1.23 mA	0.68 mA
±120°	1.8 mA	1.0 mA