Position Marker for touchless Rotary Sensors

Z-RFC-P02
Position marker for frontal fixation with 2 cylinder head screws M4x20 (with screw lock) or with locking pin (both included in delivery).
- max. permitted radial offset ±3 mm
- operating temp. -40 ... +125° C
- packaging unit:
  1 pc. P/N 400056037
  25 pcs. P/N 400056080

Z-RFC-P41
Position marker for frontal fixation with 2 cylinder head screws M4x20 (with screw lock) or with locking pin (both included in delivery).
- max. permitted radial offset ±3 mm
- operating temp. -40 ... +125° C
- packaging unit:
  1 pc. P/N 400105037
  25 pcs. P/N 400105038

Z-RFC-P47
Position marker for frontal fixation with 2 cylinder head screws M4x20 (with screw lock) or with locking pin (both included in delivery).
- max. permitted radial offset ±3 mm
- operating temp. -40 ... +125° C
- packaging unit:
  1 pc. P/N 400105039
  25 pcs. P/N 400105040

Z-RFC-P08
Position marker for fixation with threaded pin M5 (included in delivery)
- max. permitted radial offset ±3 mm
- operating temp. -40 ... +125° C
- packaging unit:
  1 pc. P/N 400056070
  25 pcs. P/N 400056084
Z-RFC-P30
Position marker for frontal fixation with 2 fillister screws M3x8 (included in delivery)
• max. permitted radial offset ±1.5 mm
• operating temp. -40 ... +125° C
• packaging unit: 1 pc. P/N 400056086
25 pcs. P/N 400056087

Z-RFC-P31
Position marker for frontal fixation with 2 fillister screws M3x8 (included in delivery)
• max. permitted radial offset ±3 mm
• operating temp. -40 ... +125° C
• packaging unit: 1 pc. P/N 400056088
25 pcs. P/N 400056089
**Z-RFC-P18**  
Screw position marker  
M10 x 25 mm. similar DIN 933.  
Aluminum anodized, magnet potted  
• max. permitted radial offset ±3 mm  
• operating temp. -40 ... +125° C  
• packaging unit:  
  1 pc. P/N 400106735  
  25 pcs. P/N 400106736

**Z-RFC-P19**  
Screw position marker  
M8 x 25 mm. similar DIN 933 / ISO 4017. Aluminum anodized, magnet potted  
• max. permitted radial offset ±1.5 mm  
• operating temp. -40 ... +125° C  
• packaging unit:  
  1 pc. P/N 400104754  
  25 pcs. P/N 400104755

**Z-RFC-P22**  
Position marker for frontal fixation  
with 2 cylinder head screws M4x20 (with screw lock, included in delivery). Attention: Closed side of position marker faces the active side of sensor. Aluminum, anodized, magnet potted  
• max. permitted radial offset ±4 mm  
• operating temp. -40 ... +125° C  
• packaging unit:  
  1 pc. P/N 400106735  
  25 pcs. P/N 400106736
Magnet for direct application onto customer’s shaft
- max. permitted radial offset ±3 mm
- operating temp. -40 ... +125° C
- packaging unit:
  - 1 pc. P/N 400005659
  - 50 pcs. P/N 400056082

Magnet for direct application onto customer’s shaft
- max. permitted radial offset ±1.5 mm
- operating temp. -40 ... +125° C
- packaging unit:
  - 1 pc. P/N 400005658
  - 50 pcs. P/N 400056081

Mounting instructions Z-RFC-P03 / Z-RFC-P04
- In general, we recommend mounting on non-magnetizable materials. Otherwise the stated working distances can change
- If the shaft is magnetizable please keep sufficient distance
- When the magnet is mounted in the shaft, the shaft may not be magnetizable
- If the magnet is axially fixed on a magnetizable shaft the working distances reduces by approximately 20 %
Lateral magnet offset (will cause additional linearity error)

The angle error, which is caused by radial displacement of sensor and position marker depends on the used position marker or magnet.

The specifications contained in our datasheets are intended solely for informational purposes. The documented specification values are based on ideal operational and environmental conditions and can vary significantly depending on the actual customer application. Using our products at or close to one or more of the specified performance ranges can lead to limitations regarding other performance parameters. It is therefore necessary that the end user verifies relevant performance parameters in the intended application. We reserve the right to change product specifications without notice.

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### Working distances (mm)

<table>
<thead>
<tr>
<th>Series</th>
<th>Interface</th>
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<th>P03</th>
<th>P04 / P23 / P31 / P20</th>
<th>P02 / P08</th>
<th>P41 / P47</th>
<th>P43</th>
<th>P22</th>
<th>P18 / P28</th>
<th>P19</th>
</tr>
</thead>
<tbody>
<tr>
<td>RFC-4801/4802, 4803/4804</td>
<td>analog single SPI</td>
<td>0...1.5</td>
<td>0...4</td>
<td>0...2.7</td>
<td>-</td>
<td>0...4.5</td>
<td>0...2.2</td>
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<td>RFC-4801/4802, 4803/4804</td>
<td>analog redundant SPI</td>
<td>0...1.5</td>
<td>0...4</td>
<td>0...2.3</td>
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<td>0...4</td>
<td>0...1.7</td>
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<tr>
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<td>2.3 ... 5</td>
<td>0...2.7</td>
<td>4.4 ... 9.2</td>
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<td>CAN single IO-link single</td>
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<td>1.9 ... 4.5</td>
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<td>0...1.7</td>
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<td>2.3 ... 5</td>
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<td>0...2.3</td>
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### Addition linearity error (°) at radial displacement

<table>
<thead>
<tr>
<th>Series</th>
<th>Interface</th>
<th>Z-RFC-P02 / P08</th>
<th>P41 / P47</th>
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<th>Z-RFC-P19</th>
<th>Z-RFC-P22</th>
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<tbody>
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<td>1.8</td>
<td>3.2</td>
<td>2.5</td>
<td>6.4</td>
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* except RFX

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