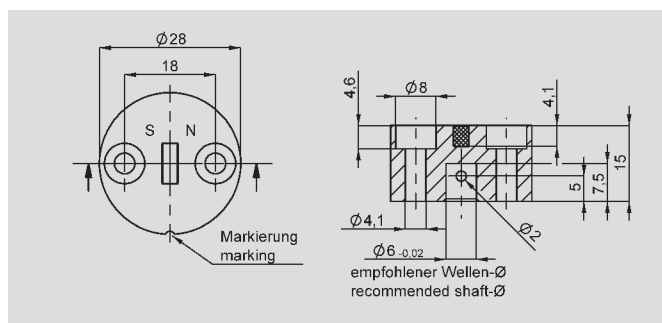
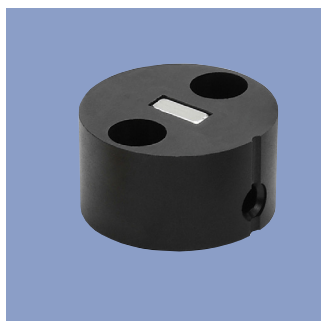


## Position Marker for touchless Rotary Sensors

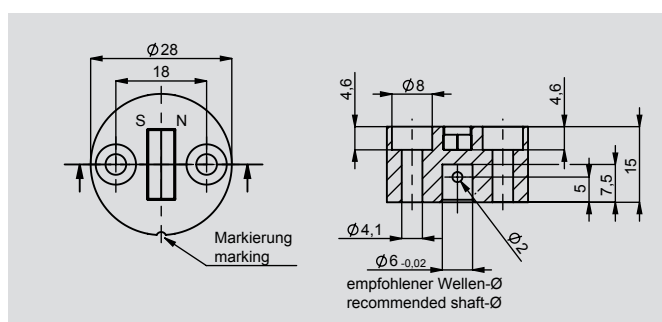
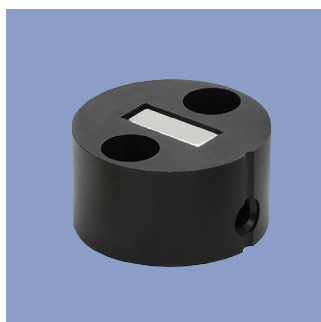


### Z-RFC-P01

Position marker for frontal fixation with 2 cylinder head screws M4x20 (with microencapsulation) or with locking pin (both included in delivery).

**Not recommended for new designs.**

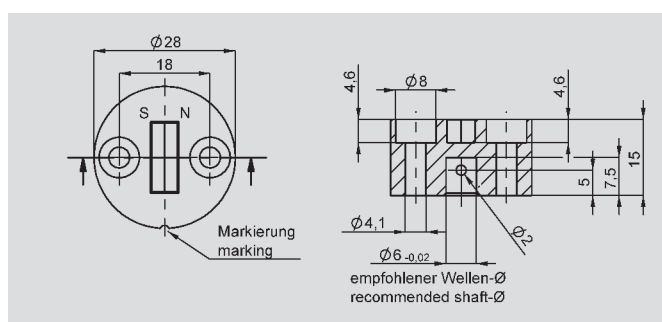
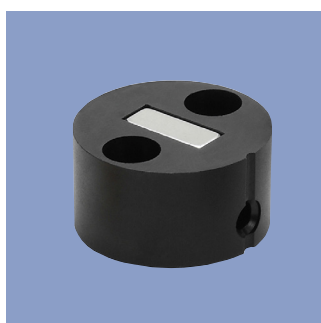
- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 40005660  
25 pcs. P/N 400056079



### Z-RFC-P41

Position marker for frontal fixation with 2 cylinder head screws M4x20 (with microencapsulation) or with locking pin (both included in delivery).

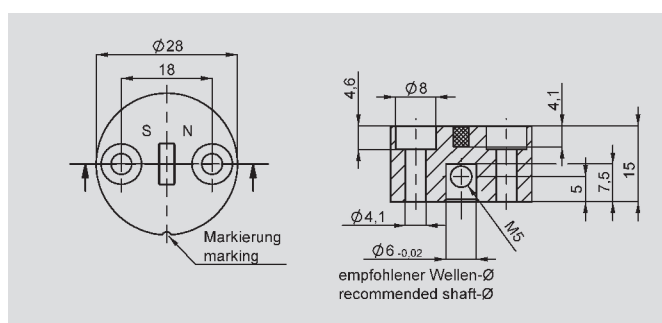
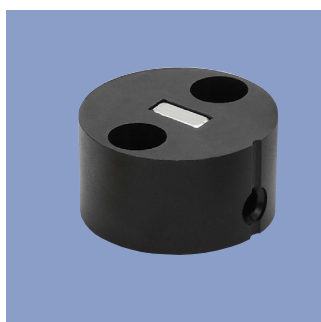
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 400105037  
25 pcs. P/N 400105038



### Z-RFC-P02

Position marker for frontal fixation with 2 cylinder head screws M4x20 (with microencapsulation) or with locking pin (included in delivery).

- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 40005661  
25 pcs. P/N 400056080

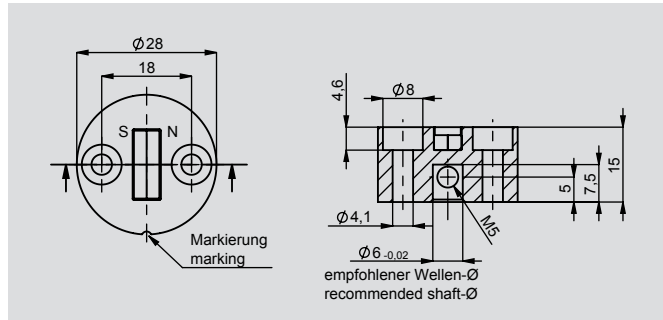
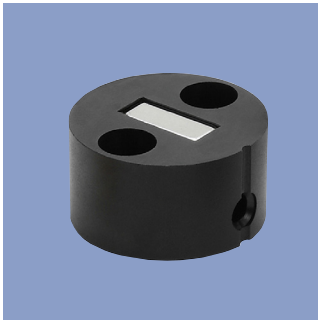


### Z-RFC-P07

Position marker for fixation with threaded pin M5 (included in delivery).

**Not recommended for new designs.**

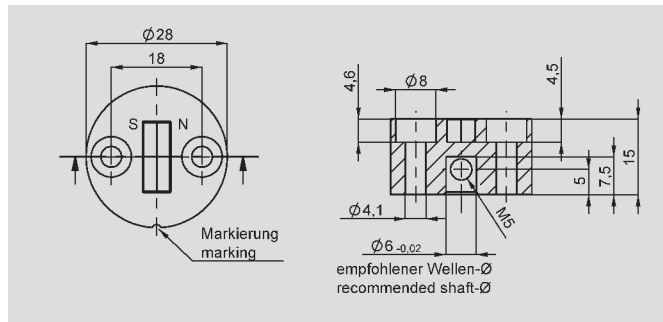
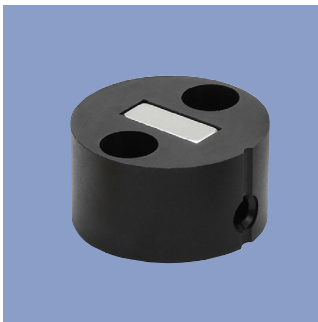
- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 400056069  
25 pcs. P/N 400056083



#### Z-RFC-P47

Position marker for frontal fixation with 2 cylinder head screws M4x20 (with microencapsulation) or with threaded pin M5 (both included in delivery).

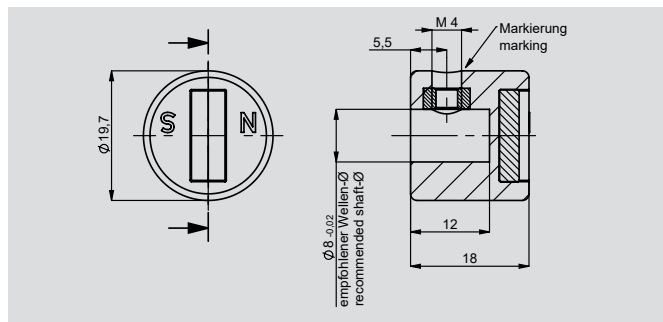
- max. permitted radial offset ± 3 mm
- packaging unit:  
1 pc. P/N 400105039  
25 pcs. P/N 400105040



#### Z-RFC-P08

Position marker for fixation with threaded pin pin M5 (included in delivery)

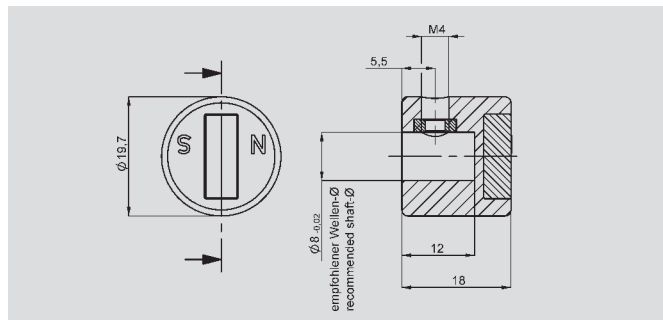
- max. permitted radial offset ±3 mm
- packaging unit:  
1 pc. P/N 400056070  
25 pcs. P/N 400056084



#### Z-RFC-P43

Position marker for fixation with threaded pin M4 (included in delivery)

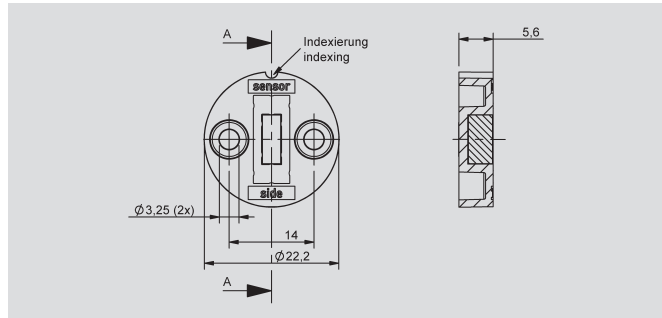
- max. permitted radial offset ±3 mm
- packaging unit:  
1 pc. P/N 400105041  
25 pcs. P/N 400105042



#### Z-RFC-P23

Position marker for fixation with threaded pin M4 (included in delivery)

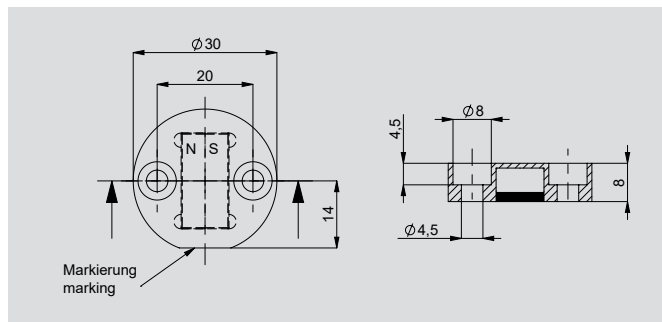
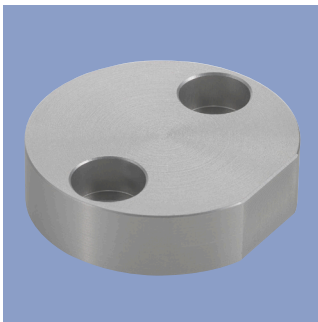
- max. permitted radial offset ±3 mm
- packaging unit:  
1 pc. P/N 400056074  
25 pcs. P/N 400056085



#### Z-RFC-P30

Position marker for frontal fixation with 2 fillister screws M3x8 (included in delivery)

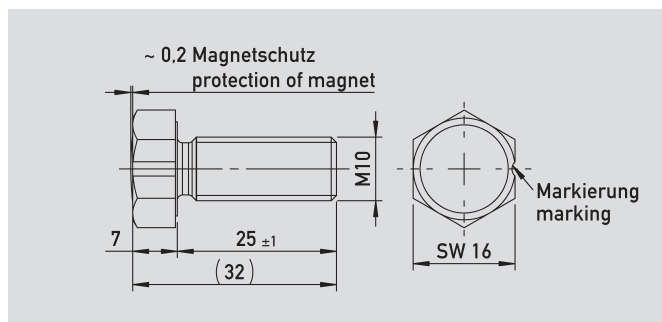
- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 400056086  
25 pcs. P/N 400056087



#### Z-RFC-P22

Position marker for frontal fixation with 2 cylinder head screws M4x20 (with microencapsulation, included in delivery). Attention: Closed side of position marker faces the active side of sensor.

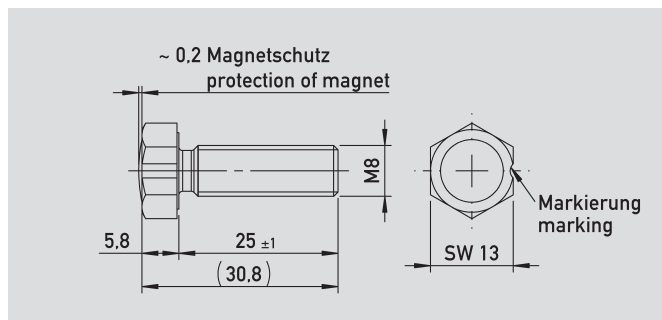
- Material Aluminium, anodized
- Max. permitted radial offset  $\pm 4$  mm
  - packaging unit:  
1 pc. P/N 400106735  
25 pcs. P/N 400106736



#### Z-RFC-P18

Screw position marker M10 x 25 mm, similar DIN 933, aluminum anodized, magnet potted

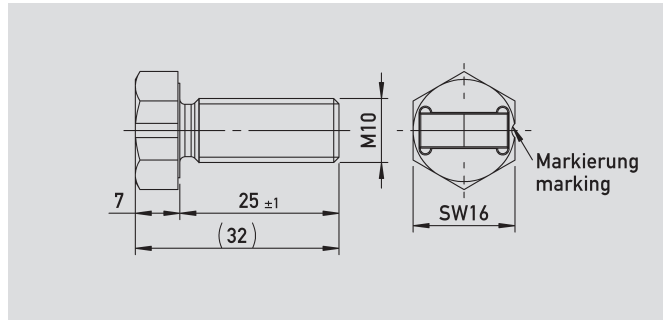
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 400104756  
25 pcs. P/N 400104757



#### Z-RFC-P19

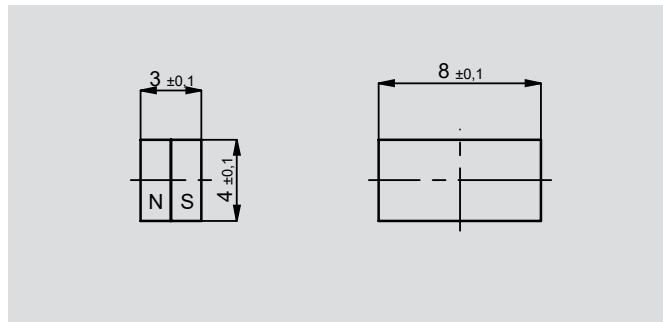
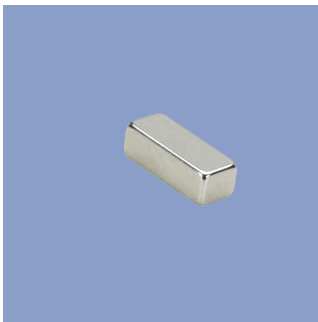
Screw position marker M8 x 25 mm, similar DIN 933 / ISO 4017, aluminum anodized, magnet potted

- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 400104754  
25 pcs. P/N 400104755



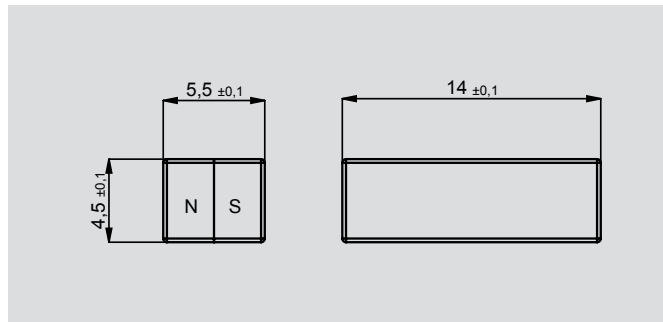
**Z-RFC-P20**  
Screw position marker  
M10 x 25 mm. similar DIN 933.  
aluminum. anodized.

- max. permitted radial offset ±3 mm
- packaging unit:  
1 pc. P/N 400104758  
25 pcs. P/N 400104759



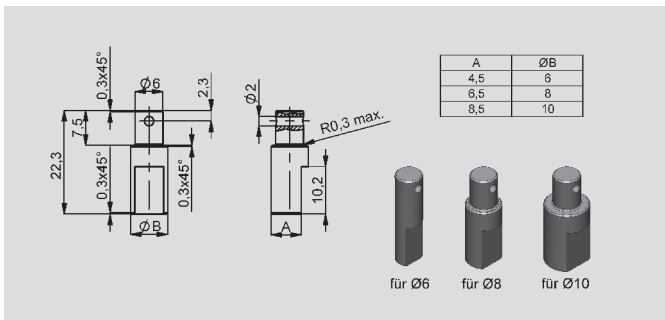
**Z-RFC-P03**  
Magnet for direct application onto customer's shaft

- max. permitted radial offset ±1.5 mm
- packaging unit:  
1 pc. P/N 400056588  
50 pcs. P/N 400056081



**Z-RFC-P04**  
Magnet for direct application onto customer's shaft

- max. permitted radial offset ±3 mm
- packaging unit:  
1 pc. P/N 400056599  
50 pcs. P/N 400056082



**Shaft adapter for Z-RFC-P01 / P02 / P41**  
Fixation at position marker with locking pin

- Z-RFC-S01: Ø 6 mm. P/N 400056206
- Z-RFC-S02: Ø 8 mm. P/N 400056207
- Z-RFC-S03: Ø 10 mm. P/N 400056208

**Mounting instructions Z-RFC-P03 / Z-RFC-P04**

- In general, we recommend mounting on not 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 %

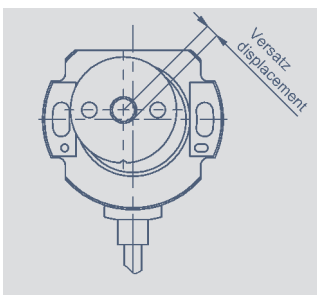
## Working distances (mm)

Series	Interface	Z-RFC- _ _ _			P04 / P23 / P31 / P20		P41 / P47		P22	P16 / P18	P17 / P19		
		P01 / P07	P30	P03	P02 / P08	P43							
RFC-4801/4802 4853/4854 4861/4862	analog single SPI	0 ... 1.5			0 ... 4		0 ... 2.7		-	0 ... 4.5	0 ... 2.2		
RFC-4801/4802 4853/4854 4861/4862	analog redundant	0 ... 1.5			0 ... 4		0 ... 2.3		-	0 ... 4	0 ... 1.7		
RFC-4801/4802	SSI / Incremental	-			0 ... 1.4		-		-	-	-		
RFC-4851/4852	analog single CAN single IO-Link single	0.7 ... 2.2			2.3 ... 5		0 ... 2.7		4.4 ... 9.2	0 ... 4.5	0 ... 2.2		
RFC-4851/4852	analog redundant CAN redundant	0.3 ... 1.8			1.9 ... 4.5		0 ... 2.3		4.8 ... 8.8	0 ... 4	0 ... 1.7		
RFC-4863/4864	analog single	0.7 ... 2.2			2.3 ... 5		0 ... 2.7		-	0 ... 4	0 ... 2.2		
RFC-4863/4864	analog redundant	0.3 ... 1.8			1.9 ... 4.5		0 ... 2.3		-	0 ... 3.5	0 ... 1.7		
RFD-4021/4031	analog single	-	1.2 ... 2.7	1 ... 3	2.8 ... 6.2		-	-	0.9 ... 3.4	6.1 ... 10.9	0 ... 5	0 ... 2.8	
RFD-4021/4031	analog redundant	-	0.7 ... 2.3	0.6 ... 2.6	2.8 ... 6.2		-	-	0.5 ... 2.9	5.6 ... 10.4	0 ... 4.5	0 ... 2.3	
RFX-6901	analog single / redundant CAN redundant	-			0.3 ... 3.5		-		2.6 ... 7.3	0 ... 2.5	-		
RFX-6901	CAN single	-			0.8 ... 4		-		2.9 ... 7.7	0 ... 3	-		
RFE-3201	analog single CAN single	-	0.4 ... 1.9		2 ... 4.7		-		-	0 ... 2.4	4.1 ... 8.9	0 ... 4	0 ... 1.8
RFE-3201	analog redundant CAN redundant	-	0 ... 1.5		1.6 ... 4.2		-		-	0 ... 2	3.6 ... 8.4	0 ... 3.5	0 ... 1.3

## Addition linearity error (%) at radial displacement

Series	Interface	Z-RFC-P02 / P04 / P08 / P20 / P23 / P31			Z-RFC-P41 / P43 / P47			Z-RFC-P01 / P03 / P07 / P30			Z-RFC-P16 / P18			Z-RFC-P17 / P19			Z-RFC-P22		
		0.5 mm	1 mm	2 mm	0.5 mm	1 mm	2 mm	0.5 mm	1 mm	2 mm	0.5 mm	1 mm	2 mm	0.5 mm	1 mm	2 mm	1 mm	2 mm	4 mm
RFC-48 _ _ RFD-4021 RFE-3201 RFX-6901	analog single* SPI CANopen single IO-Link single	0.4	1.1	3.5	0.4	1.1	3.5	1.4	3.7	-	0.7	1.3	3.3	1.3	2.6	-	0.8	1.8	5.4
RFC-48 _ _ RFD-4021 RFE-3201 RFX-6901	analog redundant* CANopen redundant	0.7	1.8	5.2	0.7	1.8	5.2	2.5	6.4	-	1.1	2	4.6	2.3	4.5	-	1.1	2.4	6.7
RFX-6901	analog single analog redundant	0.7	1.8	5.2	0.7	1.8	5.2	-	-	-	1.1	2	4.6	-	-	-	1.1	2.4	6.7
RFC-48 _ _	SSI Incremental	0.4	0.7	2.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*) except RFX



### 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.