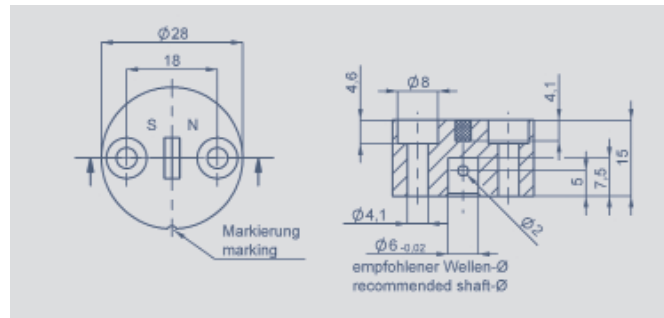
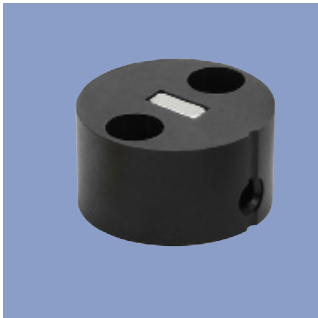


## Position Marker for touchless Rotary Sensors

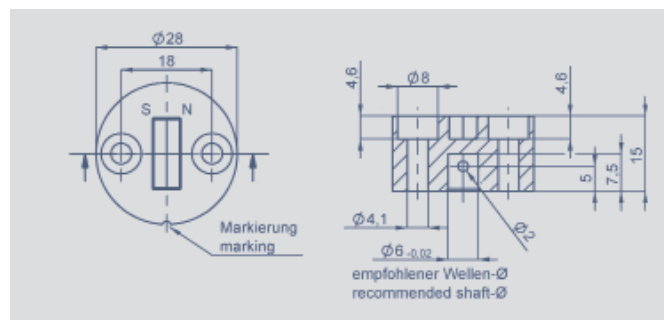
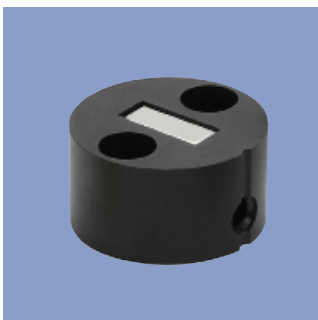


### Z-RFC-P01

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.**

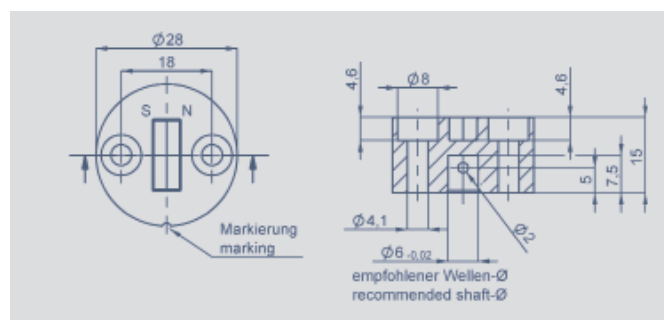
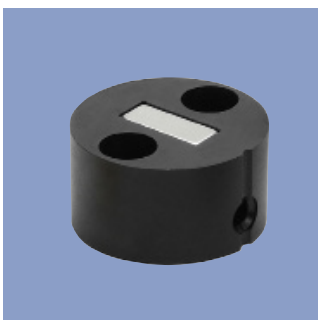
- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 005660  
25 pcs. P/N 056079



### Z-RFC-P41

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

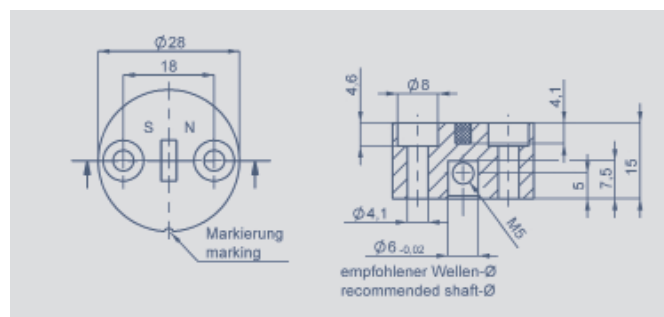
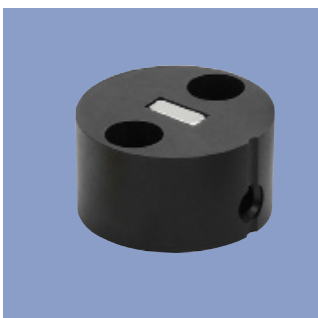
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 105037  
25 pcs. P/N 105038



### 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 005661  
25 pcs. P/N 056080

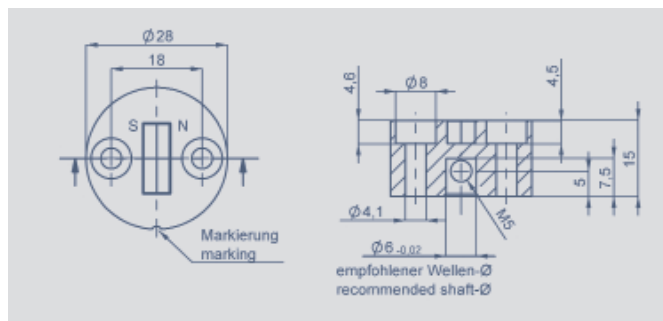
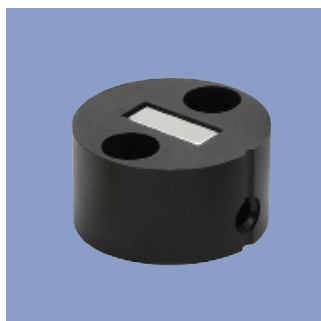


### Z-RFC-P07

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

**Not recommended for new designs.**

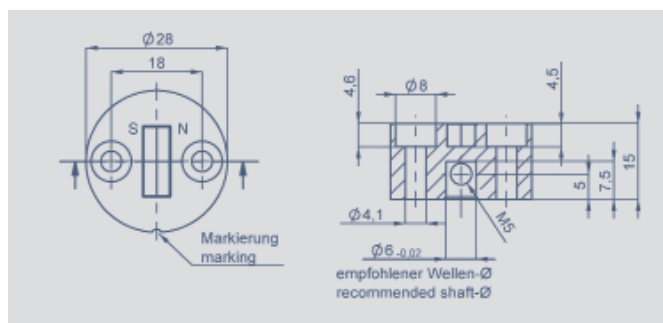
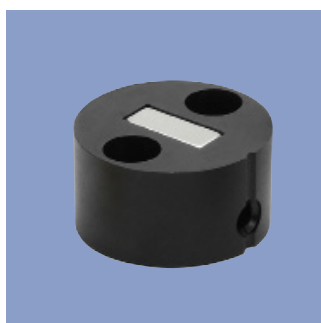
- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 056069  
25 pcs. P/N 056083



**Z-RFC-P47**

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

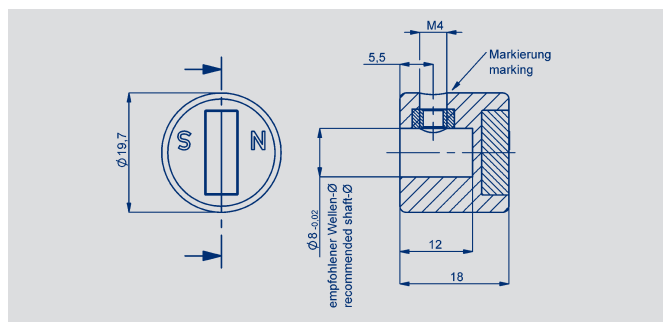
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 105039  
25 pcs. P/N 105040



**Z-RFC-P08**

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

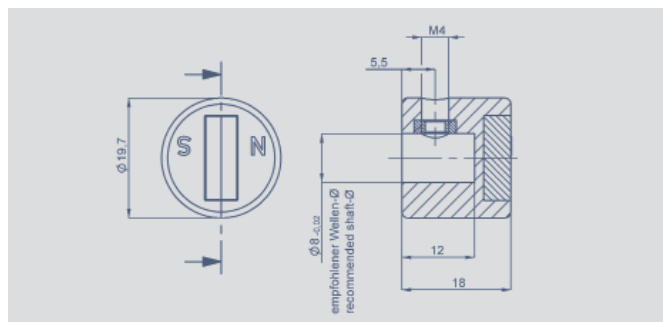
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 056070  
25 pcs. P/N 056084



**Z-RFC-P43**

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

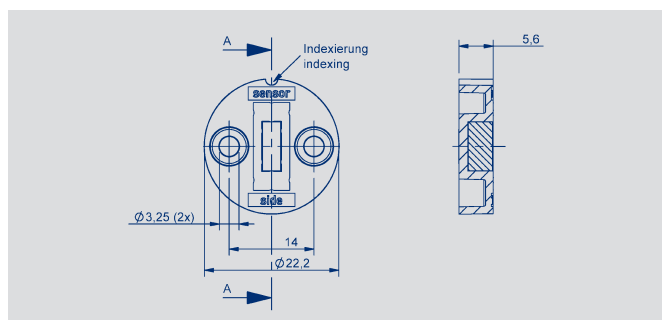
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 105041  
25 pcs. P/N 105042



**Z-RFC-P23**

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

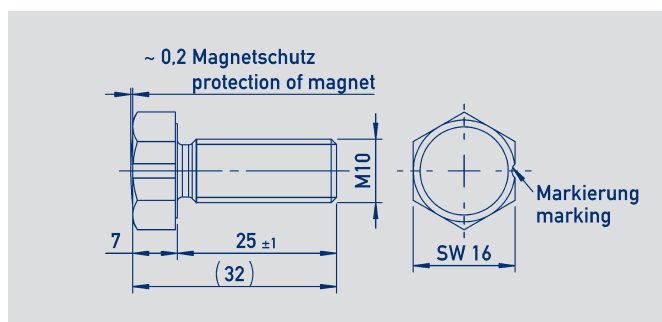
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 056074  
25 pcs. P/N 056085



#### Z-RFC-P30

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

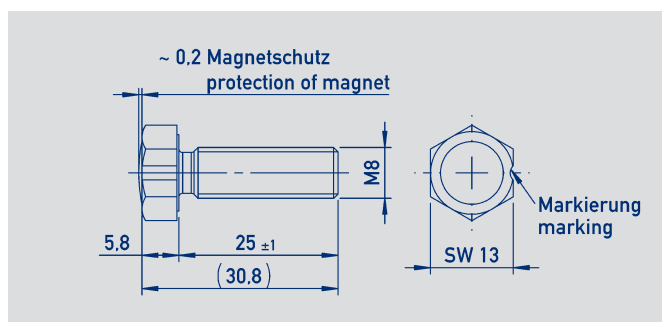
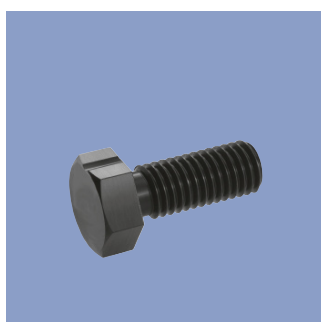
- max. permitted radial offset  $\pm 1.5$  mm
- packaging unit:  
1 pc. P/N 056086  
25 pcs. P/N 056087



#### Z-RFC-P18

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

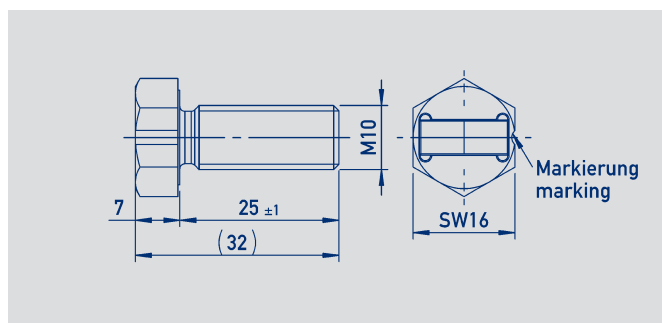
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 104756  
25 pcs. P/N 104757



#### Z-RFC-P19

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

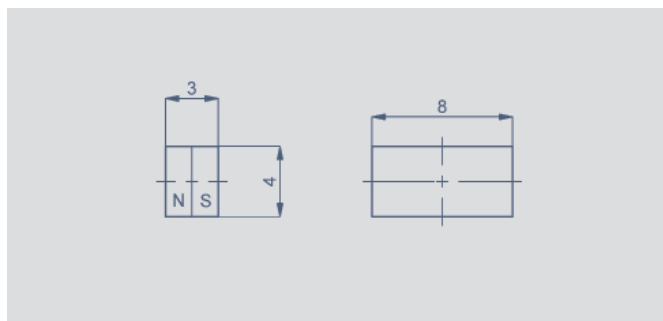
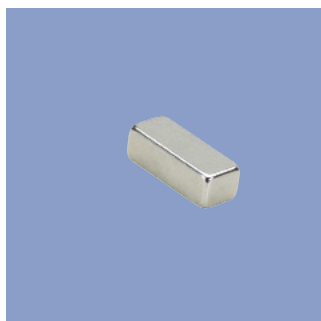
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 104754  
25 pcs. P/N 104755



#### Z-RFC-P20

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

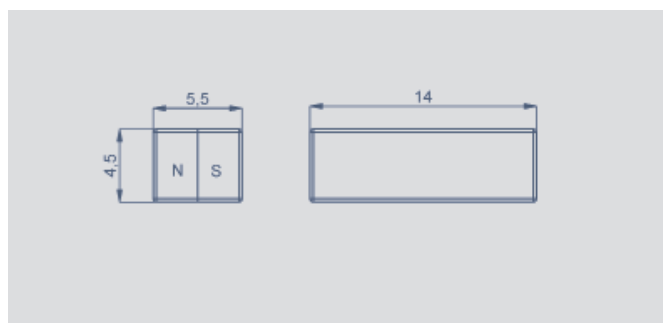
- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 104758  
25 pcs. P/N 104759



**Z-RFC-P03**

Magnet for direct application onto customer's shaft

- max. permitted radial offset  $\pm 1,5$  mm
- packaging unit:  
1 pc. P/N 005658  
50 pcs. P/N 056081



**Z-RFC-P04**

Magnet for direct application onto customer's shaft

- max. permitted radial offset  $\pm 3$  mm
- packaging unit:  
1 pc. P/N 005659  
50 pcs. P/N 056082

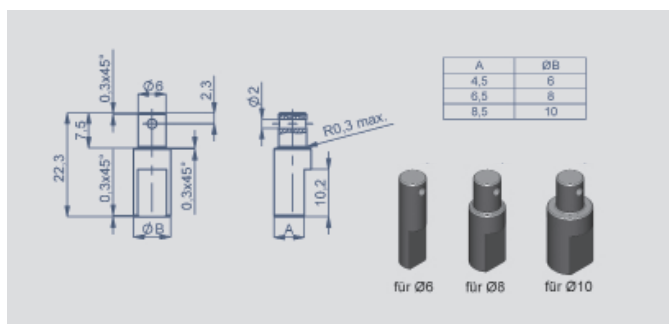
**Mounting instructions Z-RFC-P03 / Z-RFC-P04**

- 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 %

**Shaft adapter for Z-RFC-P01 / P02 / P41**

Fixation at position marker with locking pin

- Z-RFC-S01:  $\varnothing$  6 mm, P/N 056206
- Z-RFC-S02:  $\varnothing$  8 mm, P/N 056207
- Z-RFC-S03:  $\varnothing$  10 mm, P/N 056208



## Working distances (mm)

Series	Interface	Z-RFC- _ _ _ _										
		P01 / P07	P02 / P08	P03	P04	P18	P19	P20	P23	P30	P41 / P47	P43
RFC-4801/4802 / analog / SPI single 4861/4862		0 ... 1.5	0 ... 4	0 ... 1.5	0 ... 4	0 ... 4.5	0 ... 2.2	0 ... 4	0 ... 4	0 ... 1.5	0 ... 2.7	0 ... 2.7
RFC-4801/4802 / analog redundant 4861/4862		0 ... 1.5	0 ... 4	0 ... 1.5	0 ... 4	0 ... 4	0 ... 1.7	0 ... 4	0 ... 4	0 ... 1.5	0 ... 2.3	0 ... 2.3
RFC-4801/4802 SSI / Incremental		-	0 ... 1.4	-	0 ... 1.4	-	-	0 ... 1.4	0 ... 1.4	-	-	-
RFC-4851/4852 analog / CANopen / IO-Link single		0.7 ... 2.2	2.3 ... 5	0.7 ... 2.2	2.3 ... 5	0 ... 4.5	0 ... 2.2	2.3 ... 5	2.3 ... 5	0.7 ... 2.2	0 ... 2.7	0 ... 2.7
RFC-4851/4852 analog / CANopen redundant		0.3 ... 1.8	1.9 ... 4.5	0.3 ... 1.8	1.9 ... 4.5	0 ... 4	0 ... 1.7	1.9 ... 4.5	1.9 ... 4.5	0.3 ... 1.8	0 ... 2.3	0 ... 2.3
RFD-4021 analog single		-	-	1 ... 3	2.8 ... 6.2	0 ... 5	0 ... 2.8	2.8 ... 6.2	2.8 ... 6.2	1.2 ... 2.7	-	0.9 ... 3.4
RFD-4021 analog redundant		-	-	0.6 ... 2.6	2.8 ... 6.2	0 ... 4.5	0 ... 2.3	2.8 ... 6.2	2.8 ... 6.2	0.7 ... 2.3	-	0.5 ... 2.9
RFX-6901 analog single		-	0.3 ... 3.5	-	0.3 ... 3.5	0 ... 2.5	-	0.3 ... 3.5	0.3 ... 3.5	-	-	-
RFX-6901 analog redundant		-	0.3 ... 3.5	-	0.3 ... 3.5	0 ... 2.5	-	0.3 ... 3.5	0.3 ... 3.5	-	-	-
RFE-3201 analog / CANopen single		-	-	0.7 ... 2.2	2.3 ... 5	0 ... 4.5	0 ... 2.2	2.3 ... 5	2.3 ... 5	0.7 ... 2.2	-	0 ... 2.7
RFE-3201 analog / CANopen redundant		-	-	0.3 ... 1.8	1.9 ... 4.5	0 ... 4	0 ... 1.7	1.9 ... 4.5	1.9 ... 4.5	0.3 ... 1.8	-	0 ... 2.3

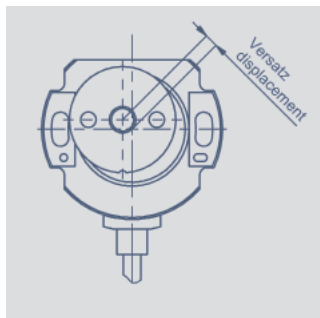
## Lateral magnet offset (will cause additional linearity error)

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

## Addition linearity error (°) at radial displacement

Series	Interface	Z-RFC-P02 / P04 / P08 / P20 / P23			Z-RFC-P41 / P43 / P47			Z-RFC-P01 / P03 / P07 / P30			Z-RFC-P18			Z-RFC-P19		
		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
RFC-48 _ _	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	-
RFD-4021		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	-
RFE-3201		0.7	1.8	5.2	0.7	1.8	5.2	-	-	-	1.1	2	4.6	-	-	-
RFX-6901		0.4	0.7	2.2	-	-	-	-	-	-	-	-	-	-	-	-
RFC-48 _ _	analog redundant* CANopen redundant	0.7	1.8	5.2	0.7	1.8	5.2	-	-	-	1.1	2	4.6	-	-	-
RFD-4021		0.7	1.8	5.2	0.7	1.8	5.2	-	-	-	1.1	2	4.6	-	-	-
RFE-3201	0.7	1.8	5.2	0.7	1.8	5.2	-	-	-	1.1	2	4.6	-	-	-	
RFX-6901	0.7	1.8	5.2	0.7	1.8	5.2	-	-	-	1.1	2	4.6	-	-	-	
RFC-48 _ _	SSI Incremental	0.4	0.7	2.2	-	-	-	-	-	-	-	-	-	-	-	-
RFD-4021		0.4	0.7	2.2	-	-	-	-	-	-	-	-	-	-	-	-

\*) except RFX



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.