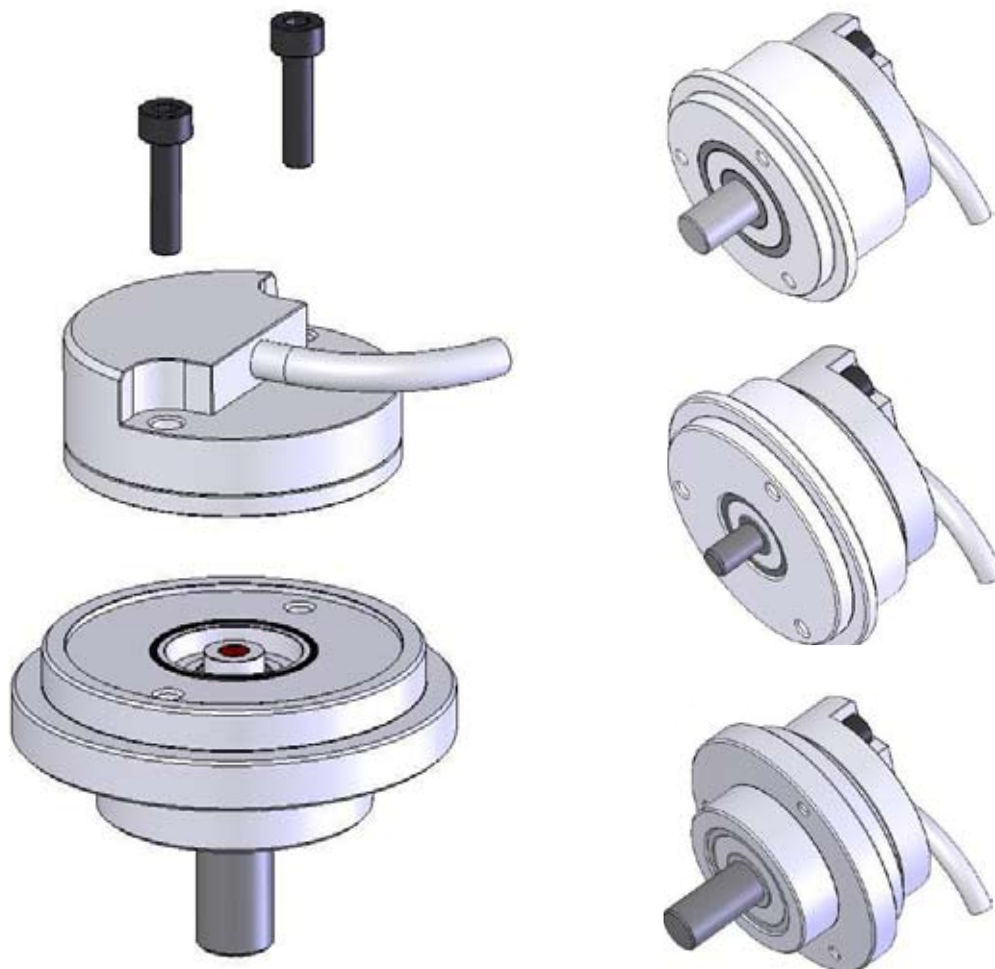


RE58 encoder flanges



General description

The RE58 is a modular bearing/shaft encoder system that has been designed for easy integration to existing 58 mm syncro flange and clamp applications.

The modular design combines the benefits of the non-contact OnAxis™ magnetic encoder technology with existing industrial encoder designs. The non-contact RM44 encoder used on the back of the bearing/shaft assembly provides ultimate reliability in harsh environmental conditions

where other encoders would fail. Even if the bearing/shaft fails it can be easily replaced without damaging the RM44 encoder.

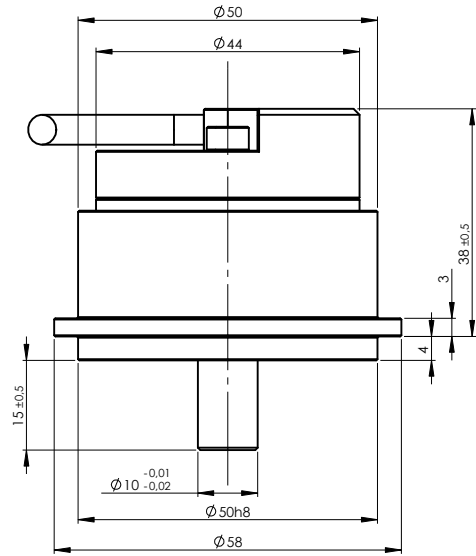
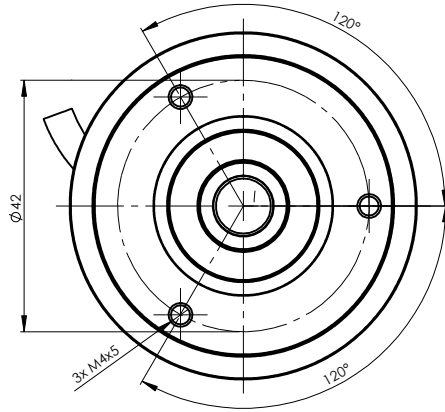
The RM44 encoder offers a wide range of output options including incremental, absolute and analogue protocols with up to 13 bit (8192 counts per rev) resolution.

System features

- Standard 58 mm diameter flange options
- Robust modular design
- Industry standard absolute, incremental and analogue output options
- Resolutions to 13 bit (8192 counts per rev)
- Easy to service
- Low cost of ownership

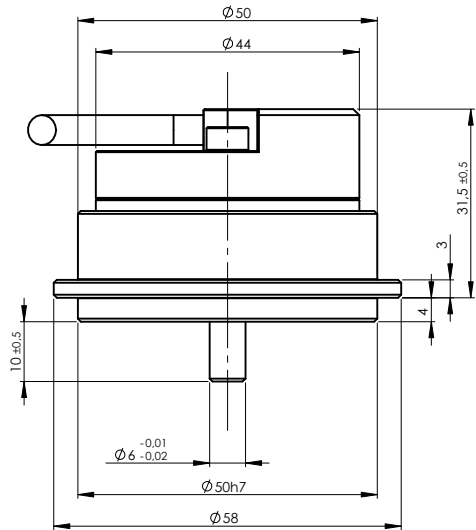
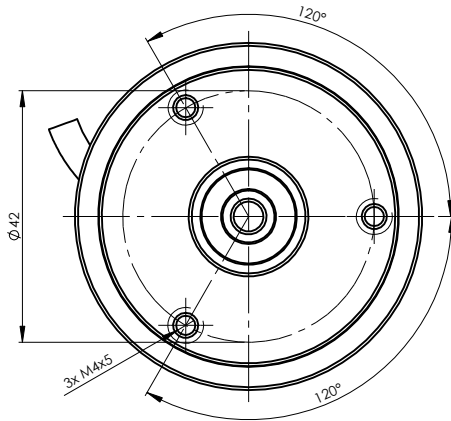
RE58A10 dimensions

NOTE: RM44 encoder is shown fitted to flange for clarity



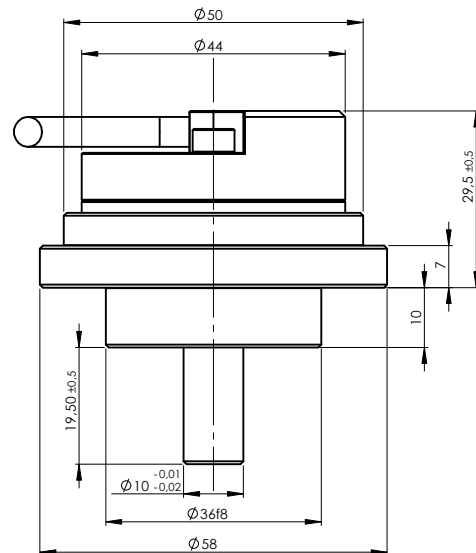
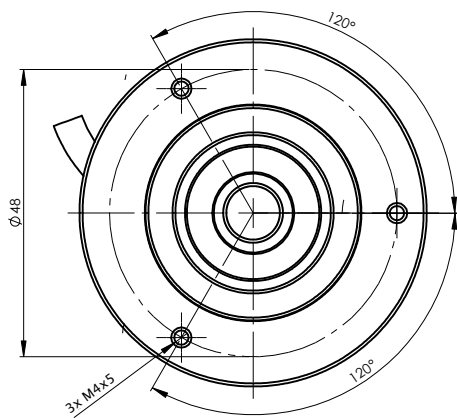
RE58B06 dimensions

NOTE: RM44 encoder is shown fitted to flange for clarity



RE58C10 dimensions

NOTE: RM44 encoder is shown fitted to flange for clarity



Tables of expected bearing life ratings in hours

RE58A10

Speed (rpm)	Radial load 10 N	Radial load 20 N	Radial load 30 N	Radial load 40 N	Radial load 50N	Radial load 60N	Radial load 70N	Radial load 80N
500	4,985,733	3,174,333	2,144,167	1,515,633	1,110,633	837,967	647,733	510,967
1,000	2,492,867	1,587,167	1,072,083	757,817	555,317	418,983	323,867	255,483
2,000	1,246,433	793,583	536,042	378,908	277,658	209,492	161,933	127,742
5,000	498,573	317,433	214,417	151,563	111,063	83,797	64,773	51,097
10,000	249,287	158,717	107,208	75,782	55,532	41,898	32,387	25,548
12,000	207,739	132,264	89,340	63,151	46,276	34,915	26,989	21,290

Maximum recommended shaft loads: radial 80N, axial 40N

RE58B06

Speed (rpm)	Radial load 10 N	Radial load 15 N	Radial load 20 N	Radial load 25 N	Radial load 30N
500	1,697,000	1,041,367	684,300	473,500	341,100
1,000	848,500	520,683	342,150	236,750	170,550
2,000	424,250	260,342	171,075	118,375	85,275
5,000	169,700	104,137	68,430	47,350	34,110
10,000	84,850	52,068	34,215	23,675	17,055
15,000	56,567	34,712	22,810	15,783	11,370
20,000	42,425	26,034	17,108	11,838	8,528

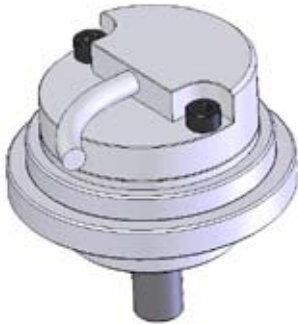
Maximum recommended shaft loads: radial 30N, axial 15N

RE58C10

Speed (rpm)	Radial load 10 N	Radial load 20 N	Radial load 30 N	Radial load 40 N	Radial load 50N	Radial load 60N
500	6,656,767	3,483,867	2,046,033	1,302,133	879,300	621,400
1,000	3,328,383	1,741,933	1,023,017	651,067	439,650	310,700
2,000	1,664,192	870,967	511,508	325,533	219,825	155,350
5,000	665,677	348,387	204,603	130,213	87,930	62,140
10,000	332,838	174,193	102,302	65,107	43,965	31,070
12,000	277,365	145,161	85,251	54,256	36,638	25,892

Maximum recommended shaft loads: radial 60N, axial 30N

RE58 encoder system



=

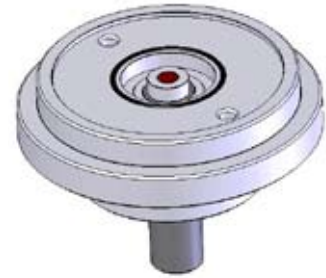
RM44 encoder



Encoder part numbering
eg **RM44IC0013B10F2F10**

+

RE58 flange



Flange part numbering
eg **RE58C10**

RE58 flange part numbering

- RE58A10 - Ø58 mm 10 mm shaft
- RE58B06 - Ø58 mm 6 mm shaft
- RE58C10 - Ø58 mm 10 mm shaft

All RE58 flanges are supplied with required washer and M4 screws for RM44 encoder attachment.

RM44 encoder part numbering

Refer to RM44 datasheet for full product specifications.

RM44 IC 00 13B 10 F 2 F 10

Series _____

Output type _____

AC - Analogue sinusoidal, 5 V
IA - Incremental, push pull, 24 V
IB - Incremental, open collector NPN, 24 V
IC - Incremental, RS422A, 5 V
IE - Incremental, open collector, 5 V
SC - Absolute binary synchro-serial (SSI), RS422A, 5 V
SI - SSI + Incremental, RS422A, 5 V
V_x - Linear voltage:

Linear voltage output 0 - 5 V, supply 5 V DC				
	360°	180°	90°	45°
CW	VA	VB	VC	VD
CCW	VE	VF	VG	VH

Shaft size _____
00 - N/A

Special requirements
10 - No special requirements (standard)
18 - Extended operating temperature (for output types **IC** and **SI** with **IP64** only)*

Environment and material
E - IP64, standard EMC grade, Zinc alloy (standard)
F - IP68, standard EMC grade, Zinc alloy

Body style and cable exit
2 - Cylindrical body, radial cable exit

Connector options
F - Flying lead (no connector)

Cable length
10 - 1.0 meter (standard)

Resolution
01S - one sine/cosine period per rev (for **AC** output only)
07B - 128 counts or positions per revolution (for output types **IE** and **IB**)
08B - 256 counts or positions per revolution (for output types **IE** and **IB**)
09B - 512 counts or positions per revolution (for output types **V_x** and **IB**)

For output types **IC**, **IA**, **SC** and **SI**:

Decimal			Binary	
D32 - 320	D80 - 800	2D0 - 2000	09B - 512	12B - 4096
D40 - 400	1D0 - 1000		10B - 1024	13B - 8192
D50 - 500	1D6 - 1600		11B - 2048	

NOTE: Not all combinations are valid.


Head office

RLS merilna tehnika d.o.o.
Cesta II. grupe odredov 25
SI-1261 Ljubljana - Dobrunje
Slovenia

T +386 1 5272100
F +386 1 5272129
E mail@rls.si
www.rls.si

Document issues

Issue	Date	Page	Amendments done
01	28. 2. 2008	-	New document
02	14. 1. 2009	-	New layout

RENISHAW  is our worldwide sales support partner for Magnetic Encoders.

Australia
T +61 3 9521 0922
E australia@renishaw.com

Germany
T +49 7127 9810
E germany@renishaw.com

The Netherlands
T +31 76 543 11 00
E benelux@renishaw.com

Sweden
T +46 8 584 90 880
E sweden@renishaw.com

Austria
T +43 2236 379790
E austria@renishaw.com

Hong Kong
T +852 2753 0638
E hongkong@renishaw.com

Poland
T +48 22 577 11 80
E poland@renishaw.com

Switzerland
T +41 55 415 50 60
E switzerland@renishaw.com

Brazil
T +55 11 4195 2866
E brazil@renishaw.com

Hungary
T +36 23 502 183
E hungary@renishaw.com

Russia
T +7 495 231 1677
E russia@renishaw.com

Taiwan
T +886 4 2473 3177
E taiwan@renishaw.com

Canada
T +1 905 828 0104
E canada@renishaw.com

India
T +91 20 6674 6751
E india@renishaw.com

Singapore
T +65 6897 5466
E singapore@renishaw.com

UK
T +44 1453 524524
E uk@renishaw.com

The People's Republic of China
T +86 10 8448 5306
E beijing@renishaw.com

Israel
T +972 4 953 6595
E israel@renishaw.com

Slovenia (Head Office)
T +386 1 52 72 100
E mail@rls.si

USA
T +1 847 286 9953
E usa@renishaw.com

Czech Republic
T +420 5 4821 6553
E czech@renishaw.com

Italy
T +39 011 966 10 52
E italy@renishaw.com

South Korea
T +82 2 2108 2830
E southkorea@renishaw.com

**For all other countries
Please contact head office**

France
T +33 1 64 61 84 84
E france@renishaw.com

Japan
T +81 3 5366 5316
E japan@renishaw.com

Spain
T +34 93 663 34 20
E spain@renishaw.com

T +386 1 52 72 100
E mail@rls.si