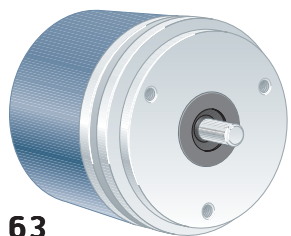
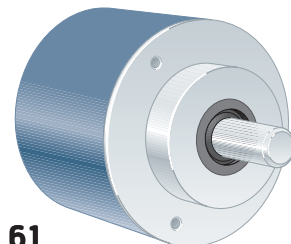


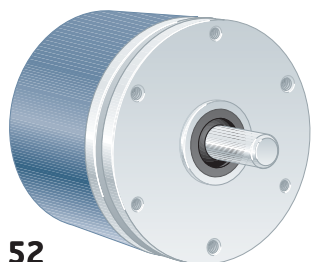
51



63



61



52

## Short description:

- >> 13 bit Parallel output
- >> Binary or Gray coded
- >> 5 Vdc or 9...36 Vdc
- >> IP 67 at housing, IP 66 at shaft inlet
- >> Robust housing for harsh environment
- >> Shock and vibration protected

## Suitable applications:

- >> Standard to demanding industrial applications
- >> Positioning applications
- >> Printing machines
- >> Packaging machines

## General information

Encoder data	
Type	RSA 507
Operating temperature	-40°C .. +80°C
Storage temperature	-30°C .. +80°C
Ingress protection class	IP-67 according to IEC 60529
At shaft inlet	IP-66 according to IEC 60529
Vibration (55 to 2000Hz)	< 300 m/s <sup>2</sup> according to IEC 60068-2-6 <sup>(1)</sup>
Shock (6ms)	< 2000 m/s <sup>2</sup> according to IEC 60068-2-27
Cover material	Aluminium
Cover surface treatment	Coated and cromated or anodized
Weight	Approx. 300g
Accuracy and resolution	
Resolution	≤ 13 Bit, 8192 positions per revolution
Accuracy	± 1 LSB

## Flange option

Flange type	51, LL58	63, Synchro	61, Clamping	52, LL68
Outer diameter	ø58 mm	ø58 mm	ø58 mm	ø68 mm
Mounting holes	3 x M3 & 3 x M4	3 x M4	3 x M3	3 x M3 & 3 x M4
Flange material	Aluminium	Aluminium	Aluminium	Aluminium
Surface treatment	Anodized	Anodized	Anodized	Anodized

## Shaft option

Shaft type	Ø 6 round	Ø 6 with face	Ø 10 round	Ø 10 with face
Axial shaft load	50 N	50 N	50 N	50 N
Radial shaft load	60 N	60 N	60 N	60 N
Mech. permissible speed	6000 rpm (12 000)	6000 rpm (12 000)	6000 rpm (12 000)	6000 rpm (12 000)
Shaft material	Stainless steel	Stainless steel	Stainless steel	Stainless steel
Moment of inertia	1,9 x 10 <sup>-6</sup> kgm <sup>2</sup>	1,9 x 10 <sup>-6</sup> kgm <sup>2</sup>	2,0 x 10 <sup>-6</sup> kgm <sup>2</sup>	2,0 x 10 <sup>-6</sup> kgm <sup>2</sup>

<sup>(1)</sup><150m/s<sup>2</sup> on encoders with connectors



### Connection option

Connector type	Cable	19 pin PT
Function	Colour	PIN
Bit 1 (LSB)	Brown/Yellow	R
Bit 2	Brown/Green	P
Bit 3	White/Green	N
Bit 4	Blue/Red	M
Bit 5	Grey/Pink	L
Bit 6	Violet	K
Bit 7	Black	J
Bit 8	Pink	H
Bit 9	Grey	G
Bit 10	Yellow	D
Bit 11	Green	C
Bit 12	Brown	B
Bit 13 (MSB)	White	A
Code sequence	White/Yellow	V
0V	Blue	F
+EV	Red	E
Housing	Shield	Chassis
<b>Connecting direction (flange option -51, -61, -63)</b>		
Axial	Yes	Yes
Radial	Yes	No
<b>Connecting direction (flange option -52)</b>		
Axial	No	No
Radial	Yes	No

Note: If 12 bit resolution is required the LSB shall not be connected

### Electrical option

Power supply	5Vdc ± 10%	9-36Vdc
Polarity protected	No	Yes
<b>Output interface Parallel</b>		
Short circuit protected	Yes	
Current consumption	100mA	50mA @24Vdc
Max current consumpt.	150mA	110mA
Output load	±20mA	±20mA
Output frequency	0...200 kHz	
U <sub>high</sub> at 10mA load	> 3.0V	> EV-3.0V
U <sub>low</sub> at 10mA load	< 0.4V	< 0.5V
Cable length (max)	10m	100m
Code type	Binary or Gray	
Position update freq.	16MHz	
Start up delay	25ms	
<b>Input</b>		
Code sequence	If not connected or connected to 0V the position will increase when the shaft is turned clockwise. If connected to a high logic level the position will increase while turned counter clockwise.	
U <sub>high</sub>	> 2V	> EV x 0.6
U <sub>low</sub>	< 0.8V	< EV x 0.25
Delay	75µs	

### Accessories

Accessories		Part number
Mating connector	19 pin PT	00201010 <sup>(1)</sup>
Coupling	6-6 mm	464192222 <sup>(2)</sup>
	10-10 mm	464333232 <sup>(2)</sup>
Mounting bracket		00208011 <sup>(3)</sup>
Bearing box		01209010 <sup>(4)</sup>

<sup>(1)</sup> Also available with assembled cable.

<sup>(2)</sup> Other couplings are also available.

<sup>(3)</sup> Only for 63 Synchro and 61 Clamping flanges.

<sup>(4)</sup> Only for 63 Synchro flange.

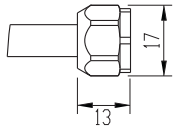
For additional accessories like assembled cables, mounting clamps, measuring wheels, draw wire box etc. Please, advise separate datasheets for accessories.



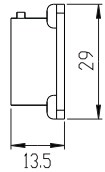


## Connectors

**Cable**  
16x0,25 shielded

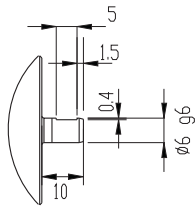


**19pin PT**

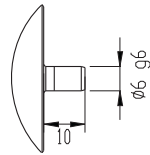


## Shafts

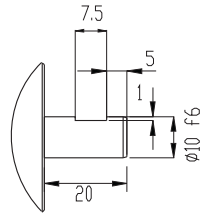
**6 mm with face**



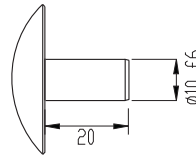
**6 mm round**



**10 mm with face**



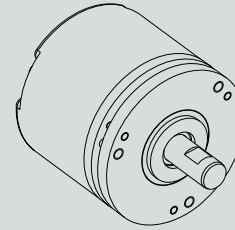
**10 mm round**



## Various combinations/examples

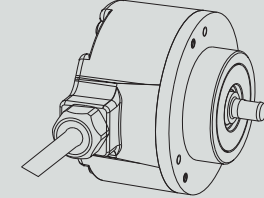
**RSA 507 51**

10 mm with face, axial PT



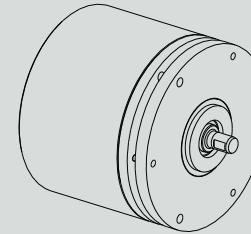
**RSA 507 61**

6 mm round, radial cable



**RSA 507 52**

6 mm with face, axial PT



## Ordering information Tick your choice

Type	RSA 507			
Flange	51, LL58	63, Synchro	61, Clamping	52, LL68
Shaft	Ø6mm round	Ø6mm with face	Ø10mm round	Ø10mm with face
Electronics	Supply	5 Vdc	9-36Vdc	
	Output	PLG, Gray	PLB, Binary	
Connection	Cable <sup>(1)</sup>	19 pin PT <sup>(2)</sup>		
Connecting direction	Axial <sup>(2)</sup> /Radial	Axial		
Resolution	13 bit			

<sup>(1)</sup> Note: Please specify cable length when ordering

<sup>(2)</sup> Note: Not available on flange 52, LL68

Ordering example: RSA 507 63 Ø10ro 9-36Vdc PLB Cable Radial 13bit  
Assembly drawing is available upon request from Leine & Linde AB